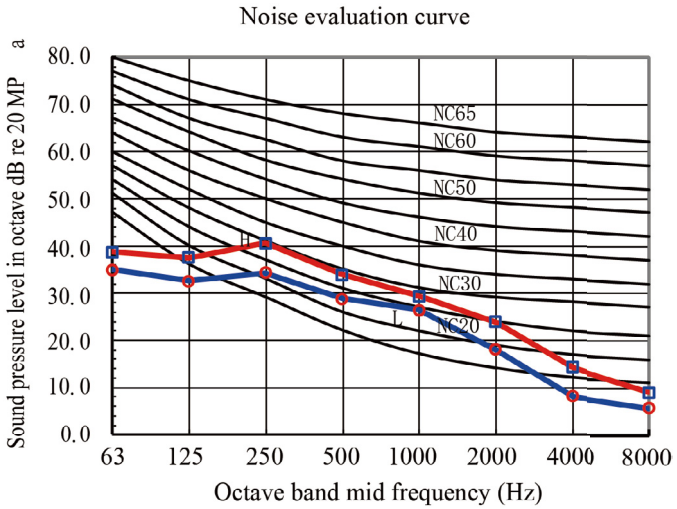
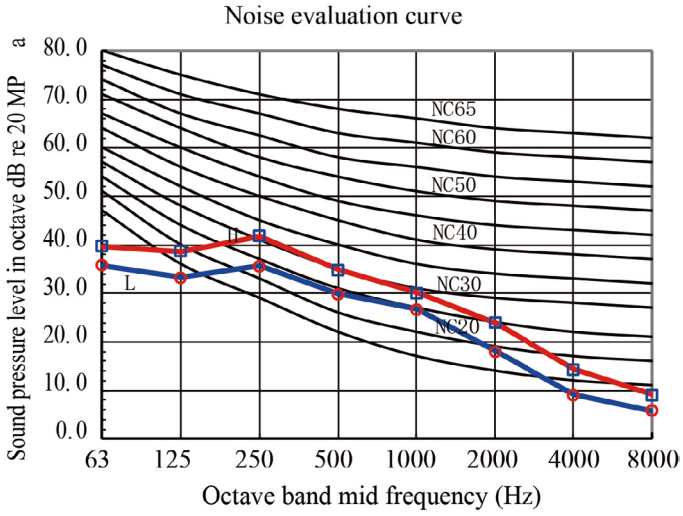
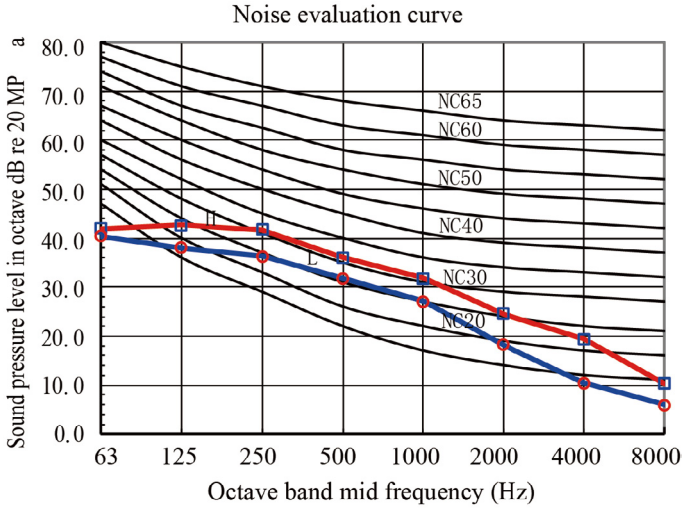
Model 28-50



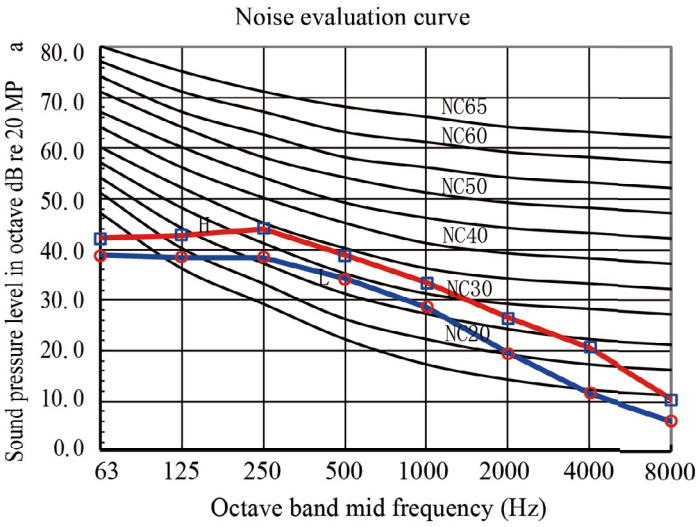
Model 56-63



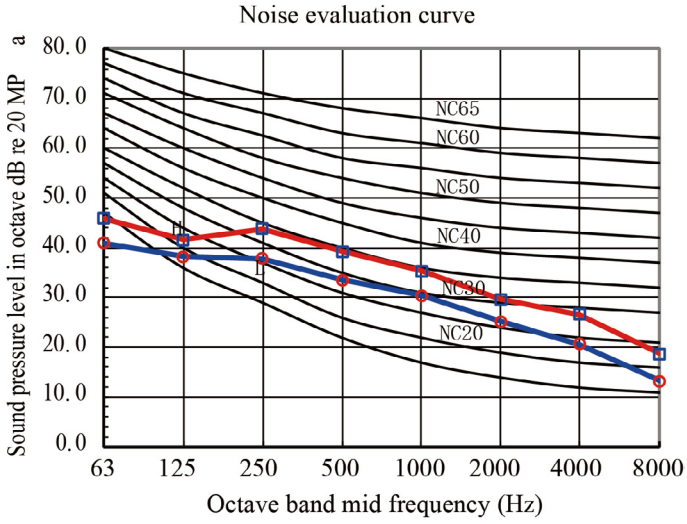
Model 71-80



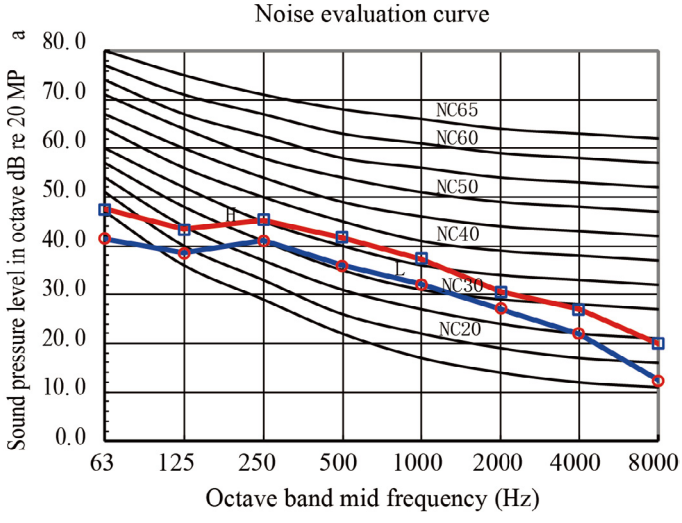
Model 90-100



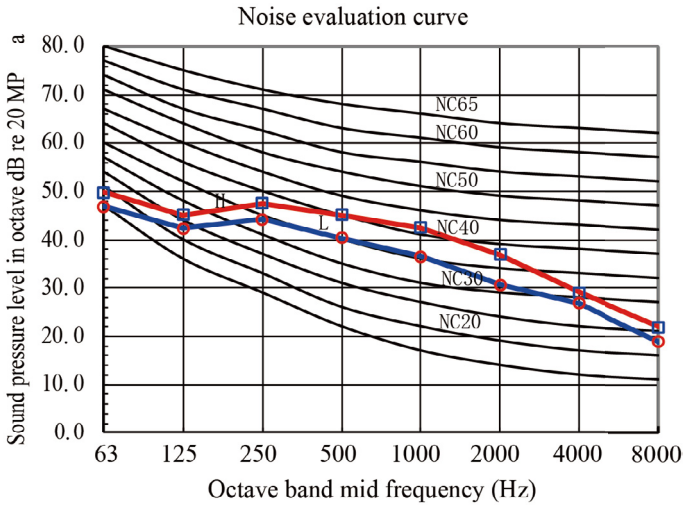
Model 112



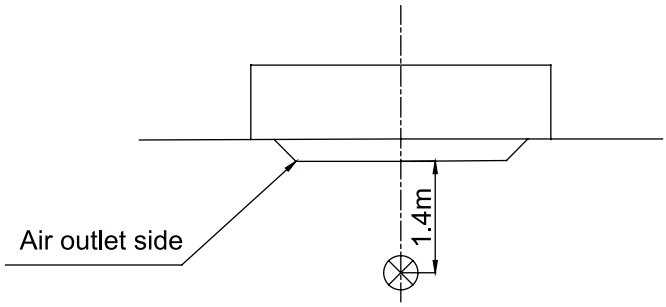
Model 125-140



Model 160



5.3 One-way Cassette Type GMV-ND**TD/A-T



Transandient meter of sound level meter

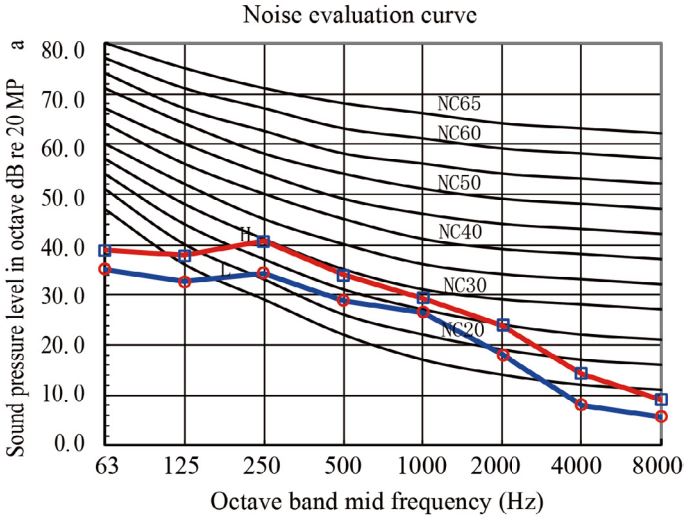
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

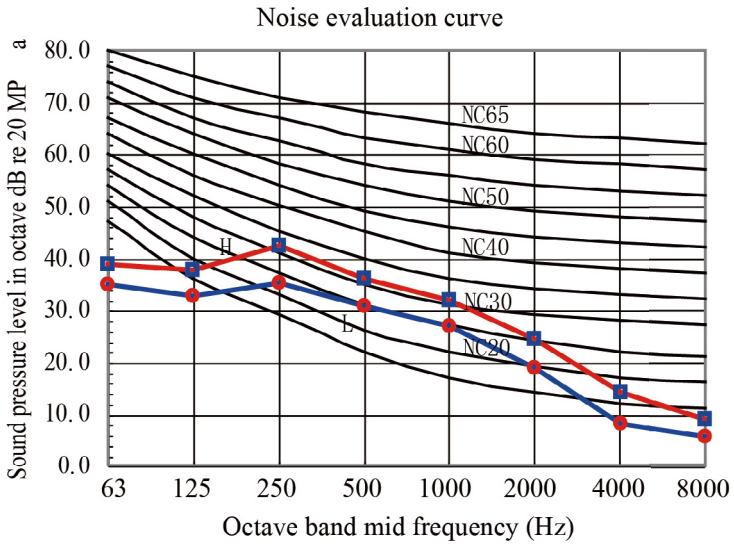
② The noise level is measured under the standard test condition.

5.3.1 GMV-ND**TD/A-T

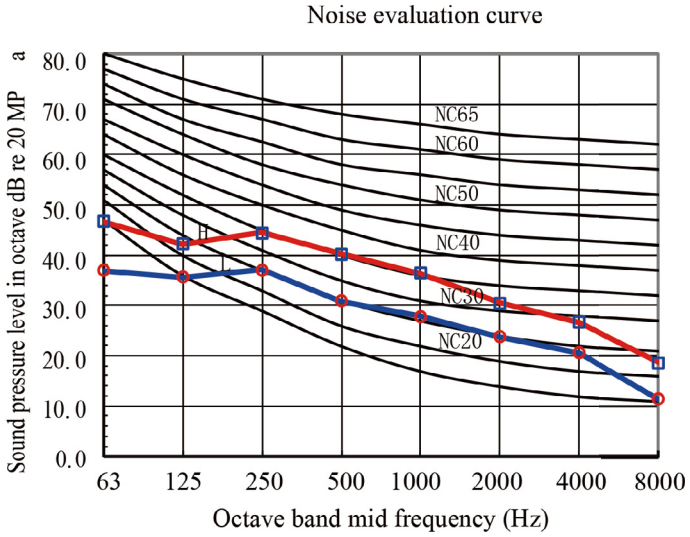
Model 22, 28



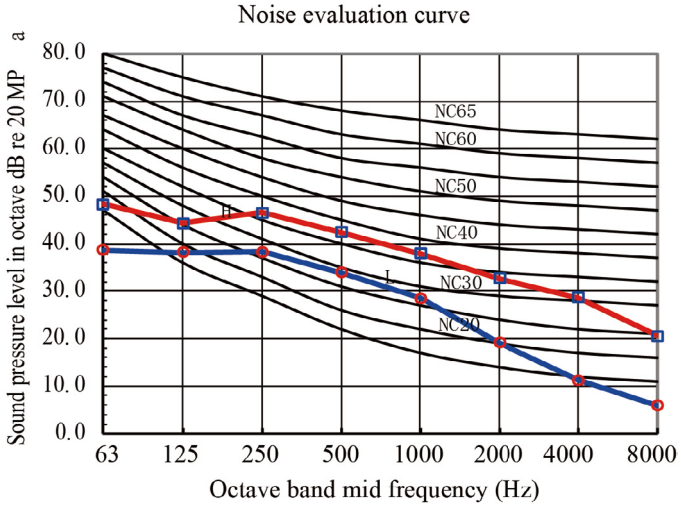
Model 36



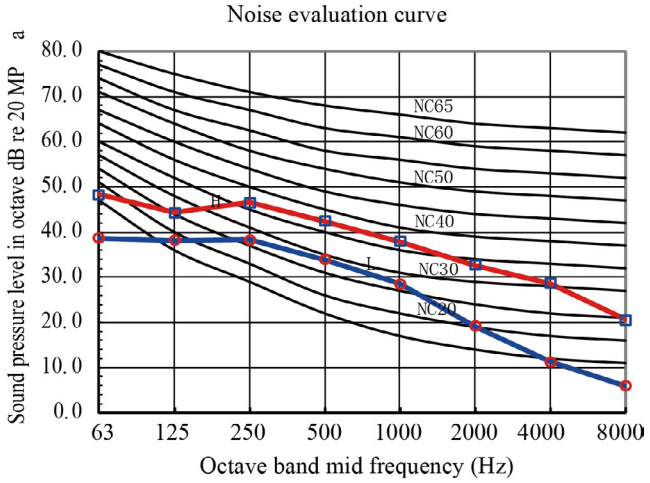
Model 45



Model 50

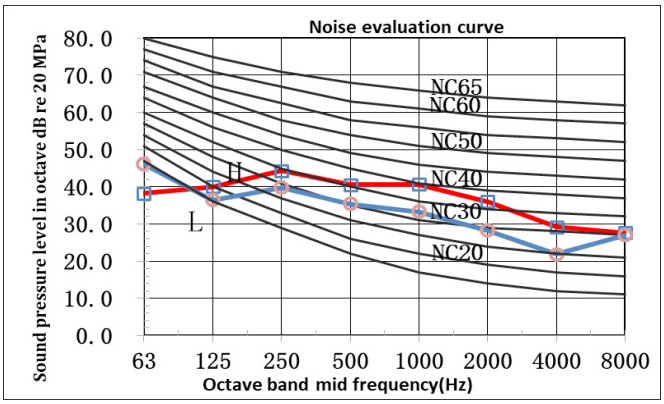


Model 56

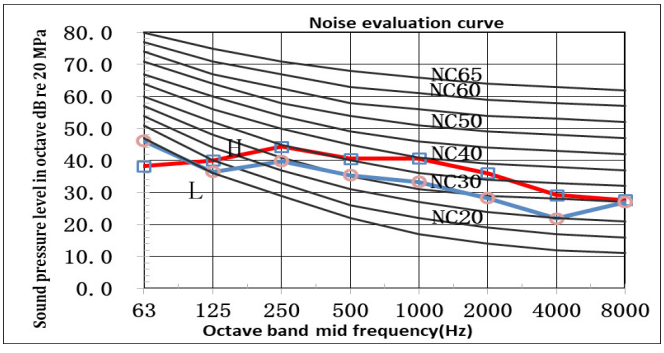


5.3.2 GMV-ND**TD/B-T

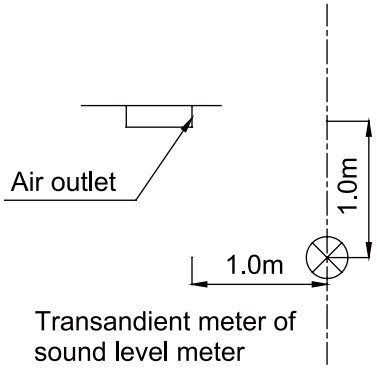
Model 63



Model 71、80



5.4 Floor Ceiling Type



Notes:

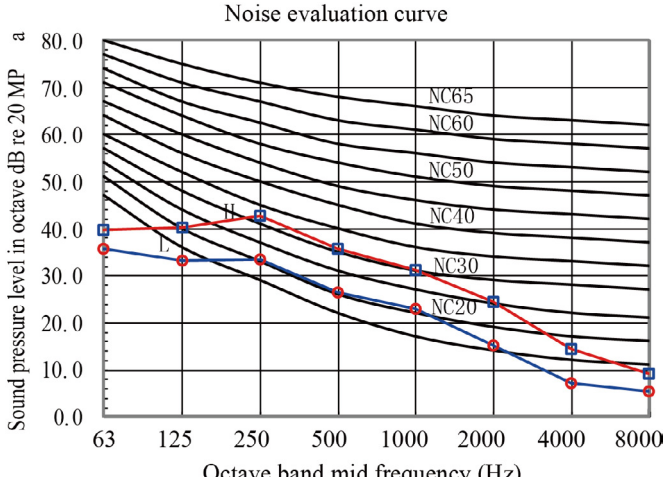
① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

② The noise level is measured under the standard test condition.

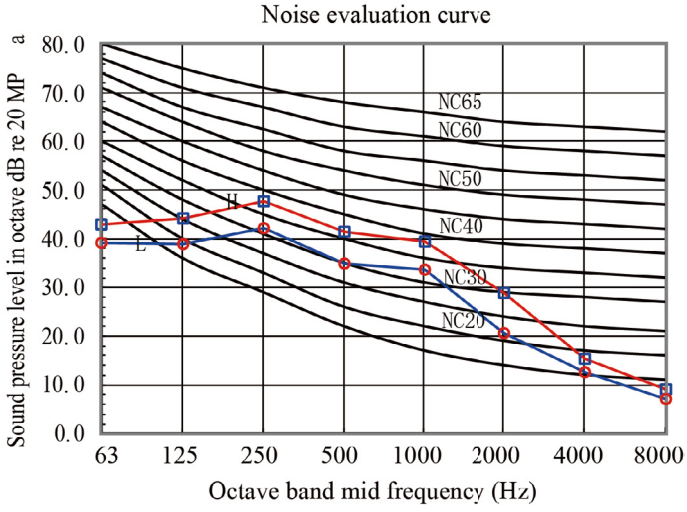
③ The noise level is measured under the condition of ceiling installation.

5.4.1 GMV-ND**ZD/A-T

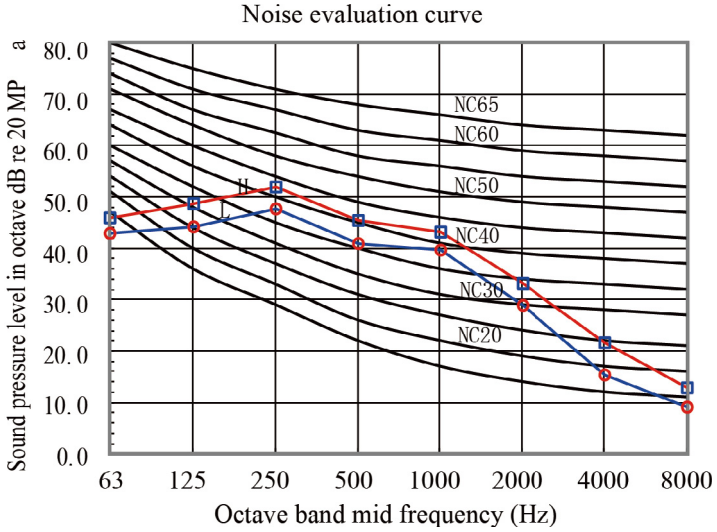
Model 28-36



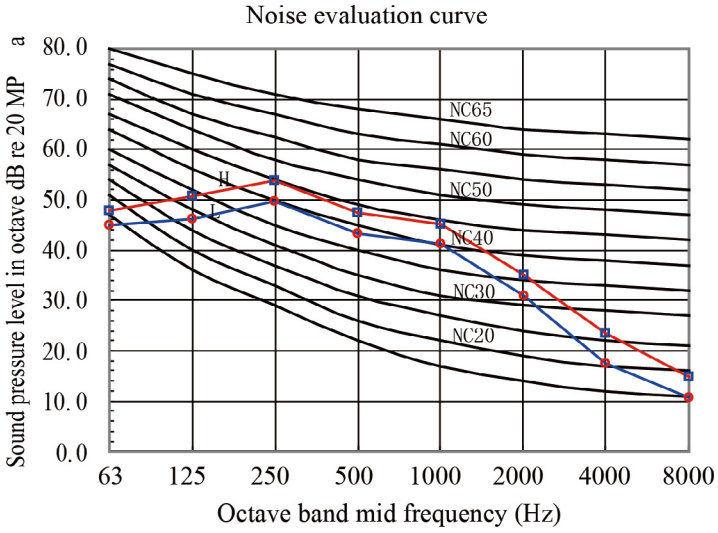
Model 50-56



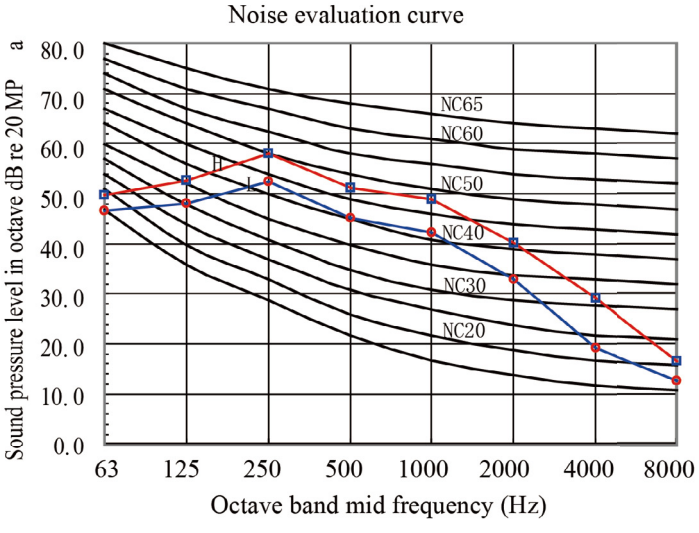
Model 63-71



Model 90

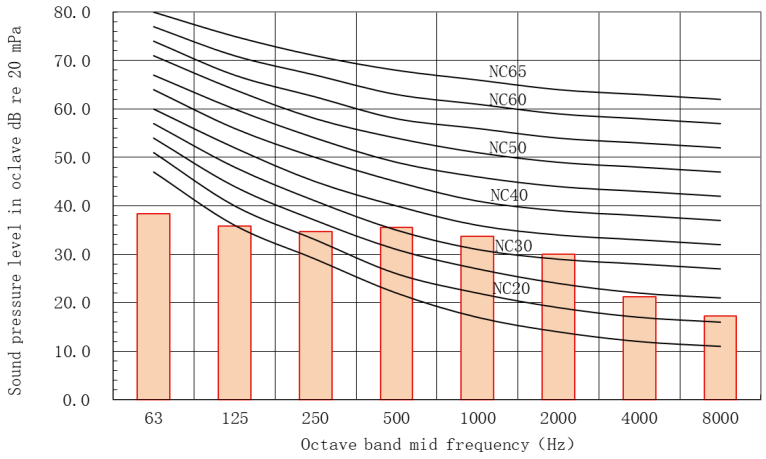


Model 112-160

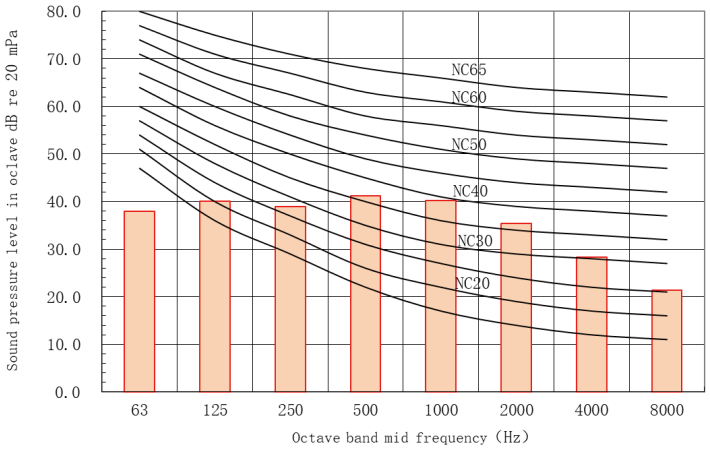


5.4.2 GMV-ND**ZD/B-T

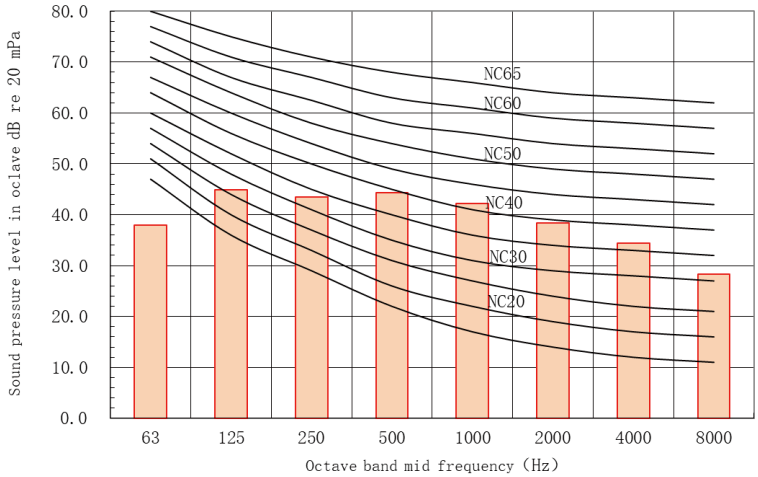
Model 28-36



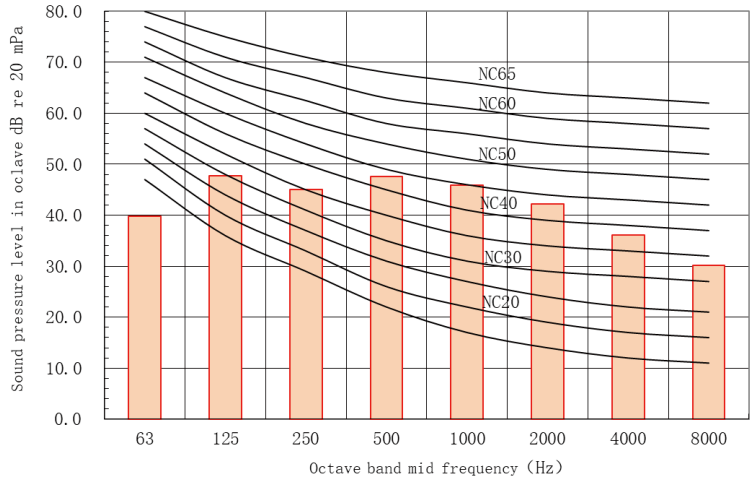
Model 50-56



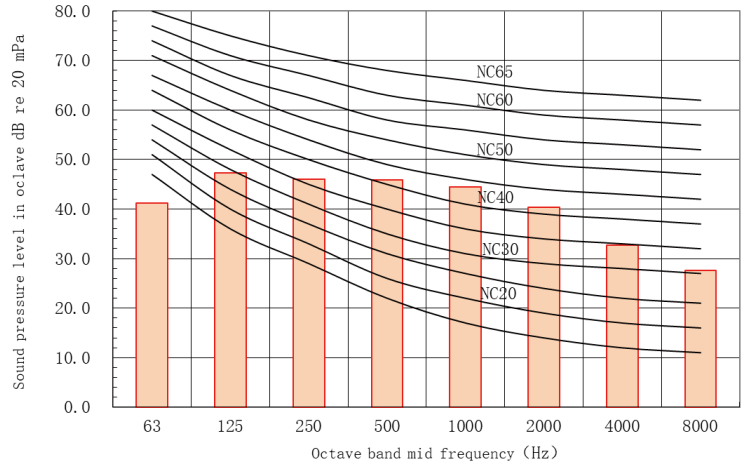
Model 63-71



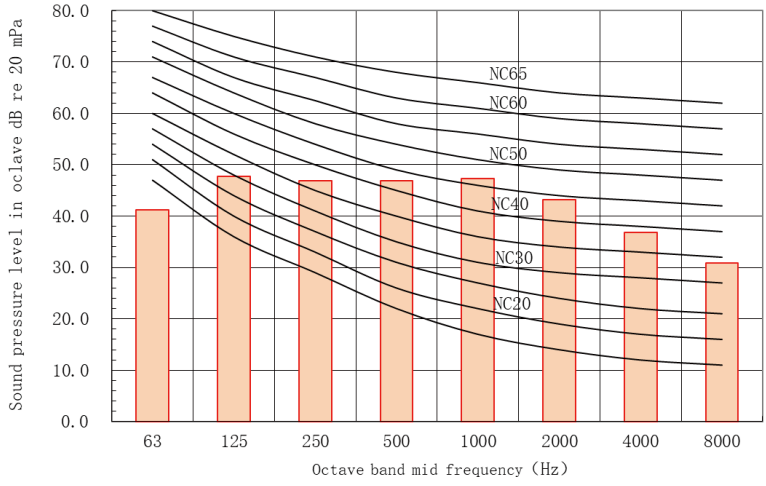
Model 90



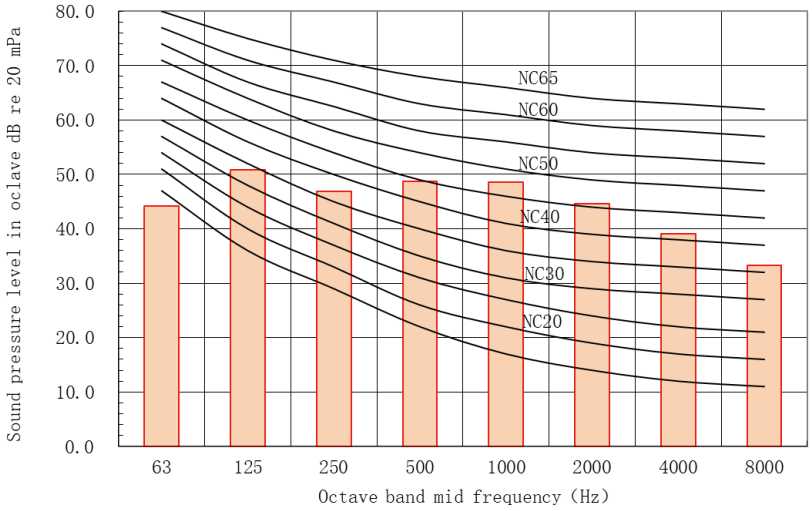
Model 112-125



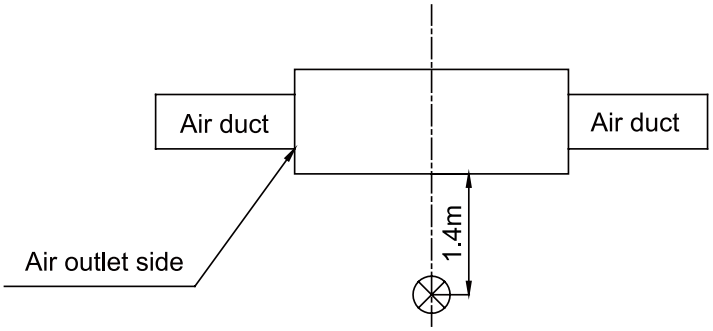
Model 140



Model 160



5.5 Slim Duct Type GMV-ND**PL/B-T



Transandient meter of sound level meter

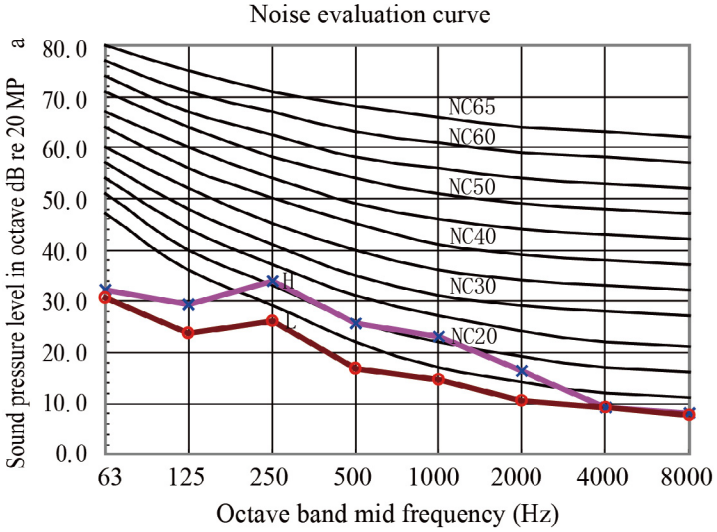
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

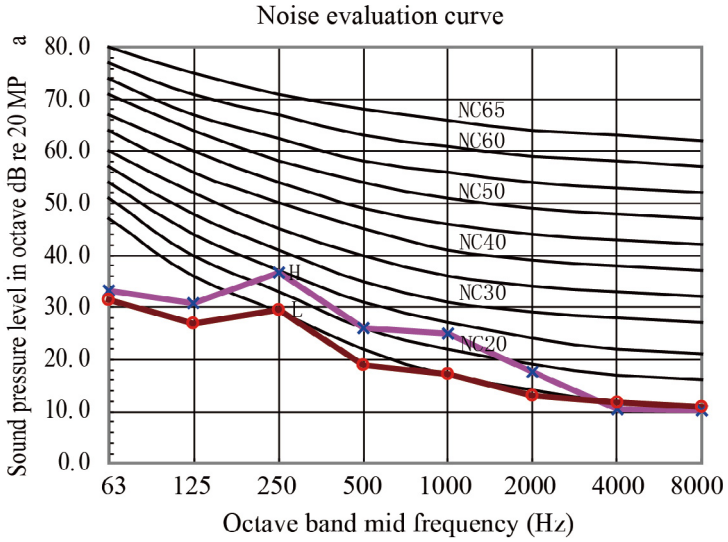
② The noise level is measured under the standard test condition.

③ The noise level is measured under the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

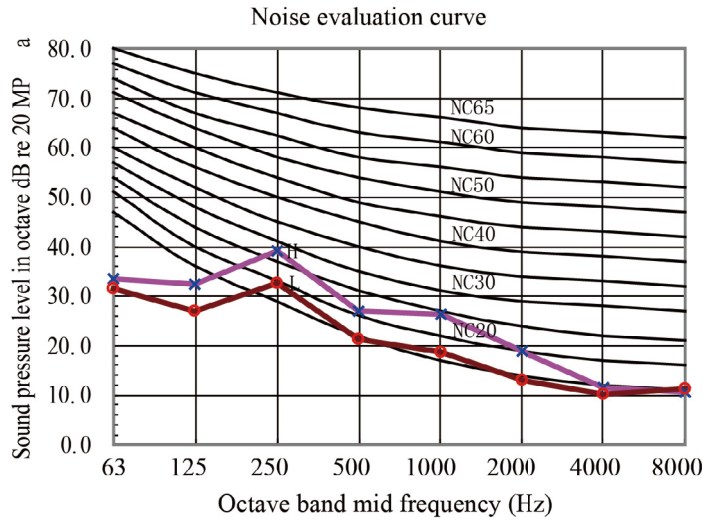
Model GMV-ND22~28PL/B-T



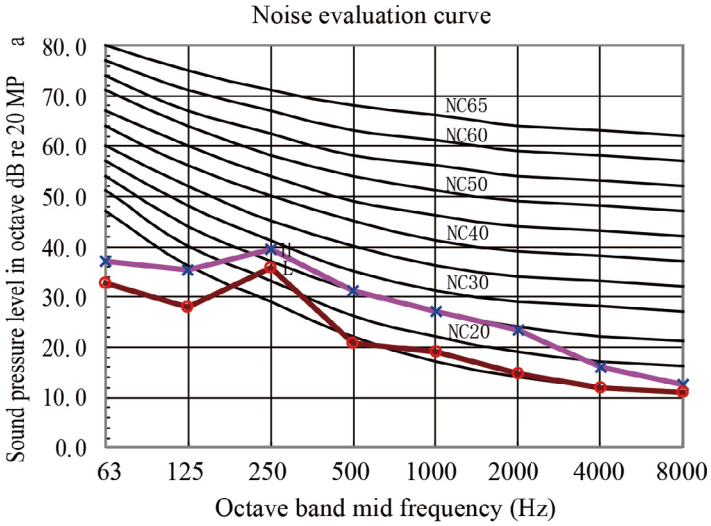
Model GMV-ND32~36PL/B-T



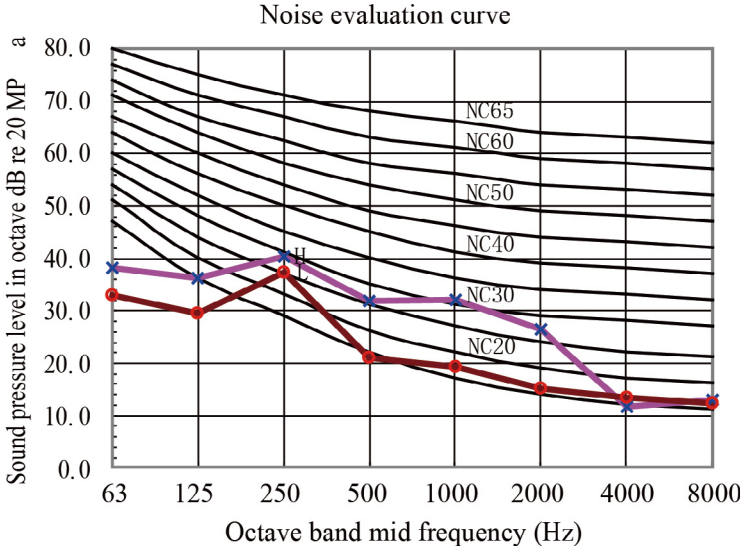
Model GMV-ND40~50PL/B-T



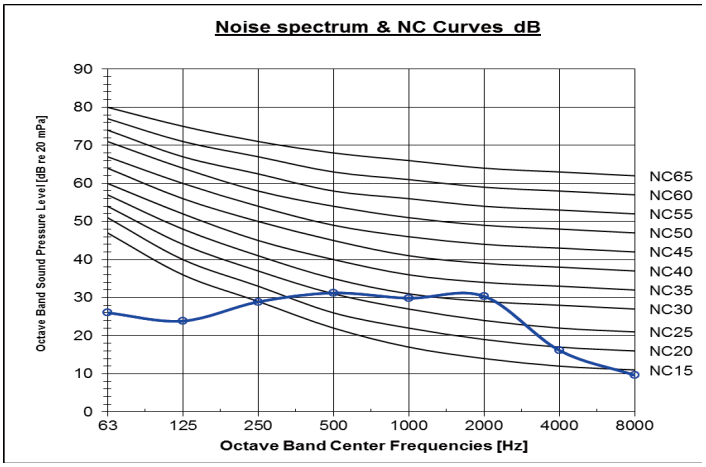
Model GMV-ND56~63PL/B-T



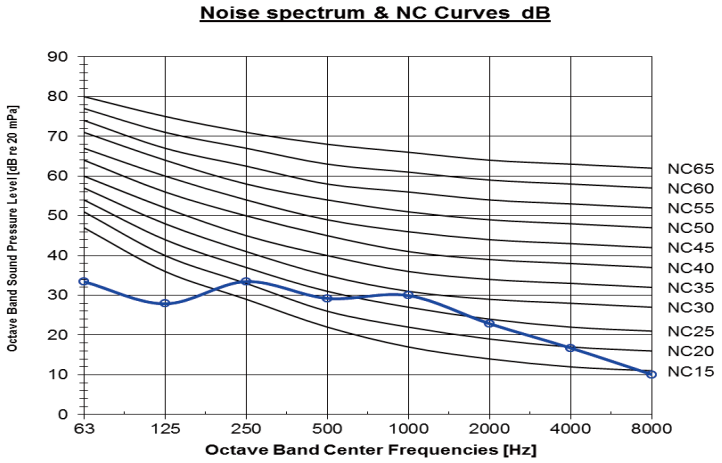
Model GMV-ND72PL/B-T



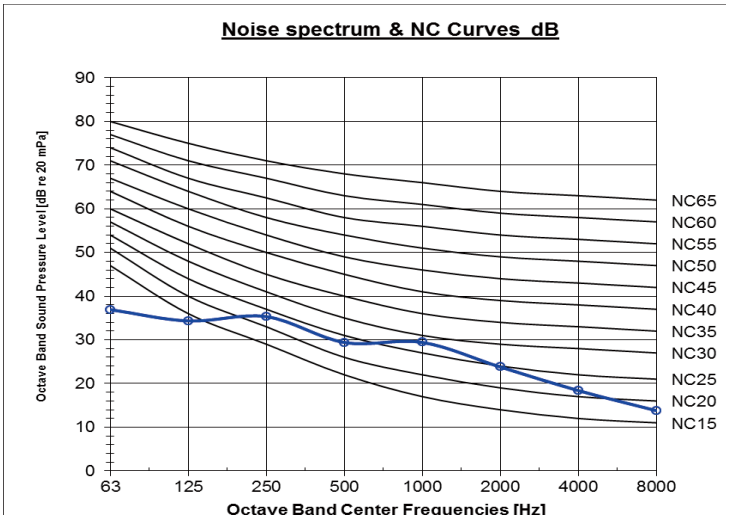
Model GMV-ND22~28PLS/B1-T



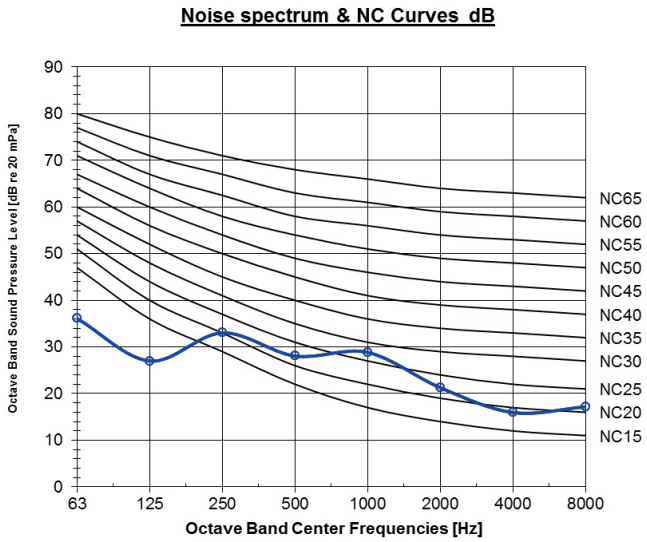
Model GMV-ND32~36PLS/B1-T



Model GMV-ND50~63PLS/B1-T

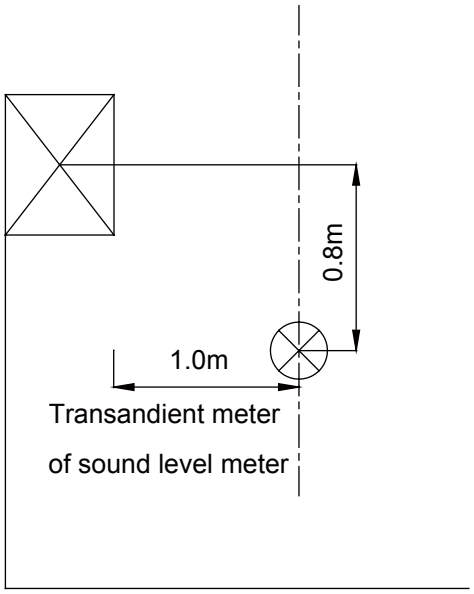


Model GMV-ND71PLS/B1-T



5.6 Wall Mounted Type

GMV-N**G/A3A-K, GMV-N**G/A2A-K, GMV-N**G/A4A-K, GMV-N**G/A8A-K, GMV-N**G/C9A-K, GMV-N**G/E3A-K, GMV-N**G/B3A-K, GMV-N**G/A3A-D, GMV-N**G/A2A-D, GMV-N**G/A4A-D, GMV-N**G/A8A-D, GMV-N**G/C9A-D, GMV-N**G/E3A-D, GMV-N**G/B3A-D, GMV-ND**G/A3A-T, GMV-ND**G/A8A-T, GMV-ND**G/B4B-T, GMV-ND**G/B6B-T,GMV-ND**G/C2B-T,GMV-ND**G/C4B-T, GMV-ND**G/D2B-T

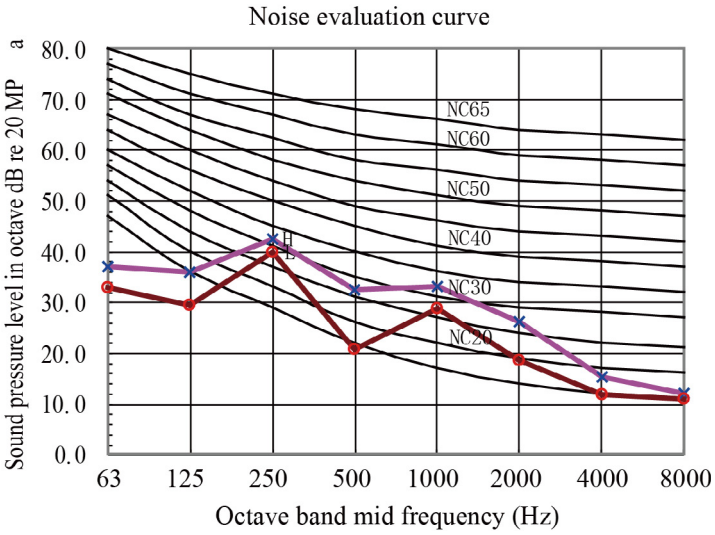


Notes:

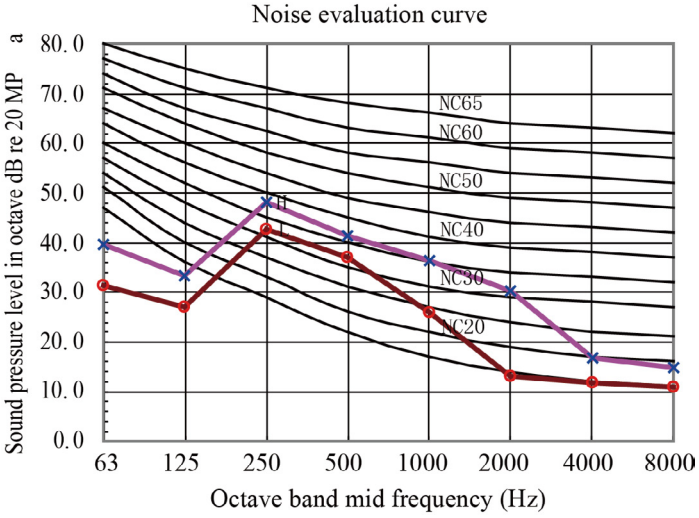
① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

② The noise level is measured under the standard tet condition.

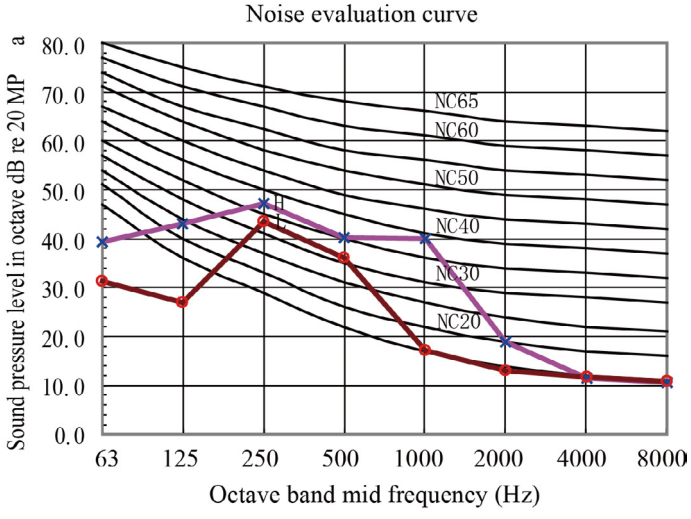
Model 15-28



Model 36-50

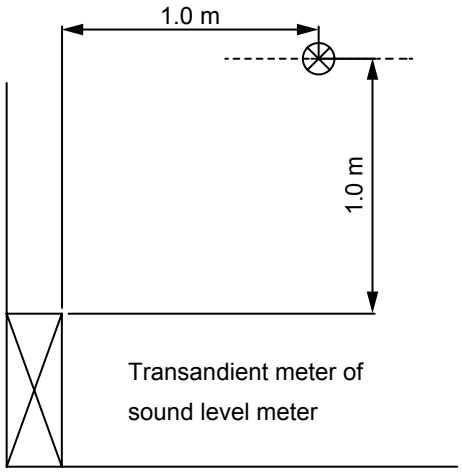


Model 56-71

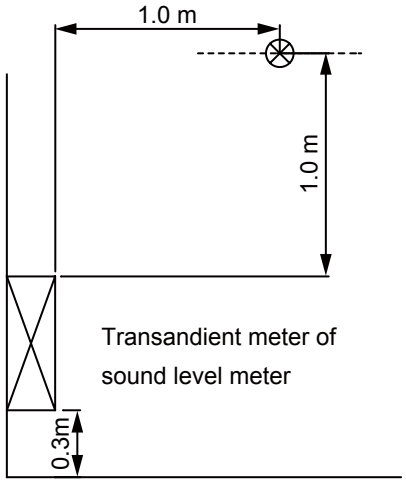


5.7 Console Type(Floor and Wall Mounted Type) GMV-ND**C/A-T

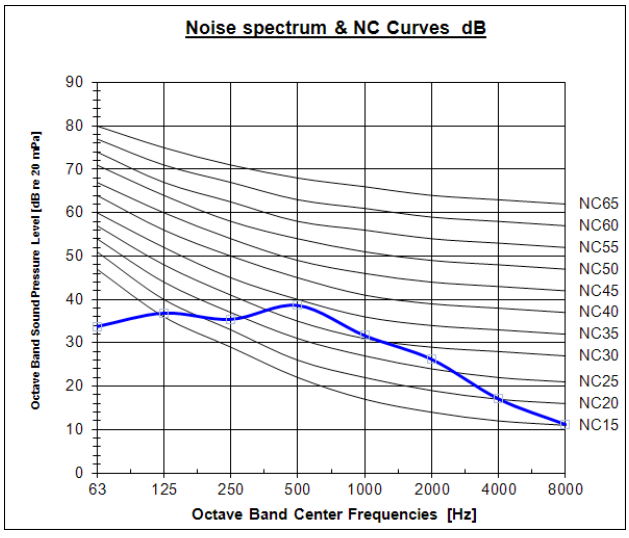
Floor type



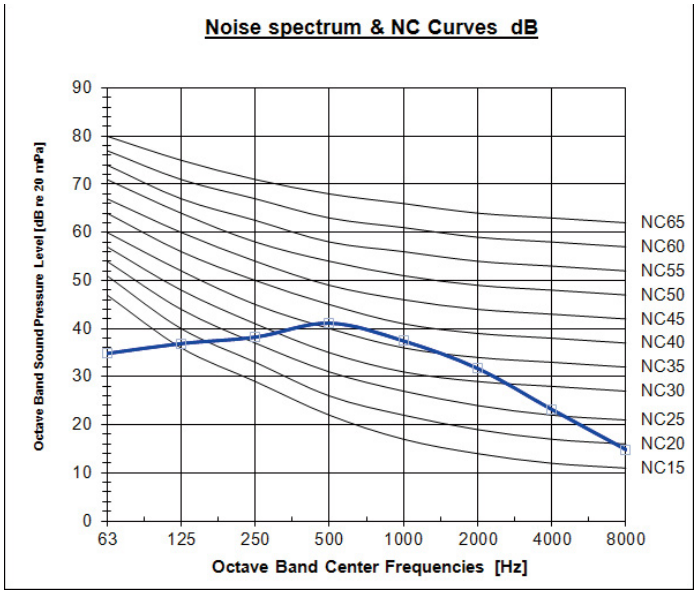
Wall Mounted type



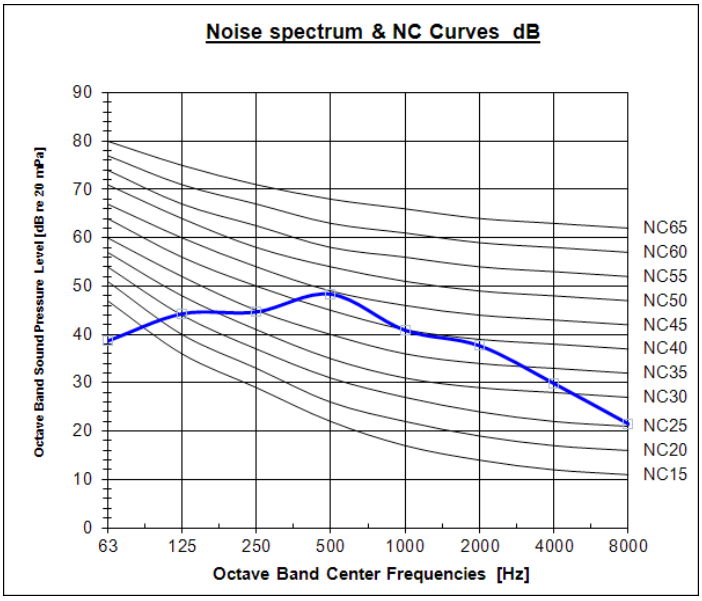
Model 22/28



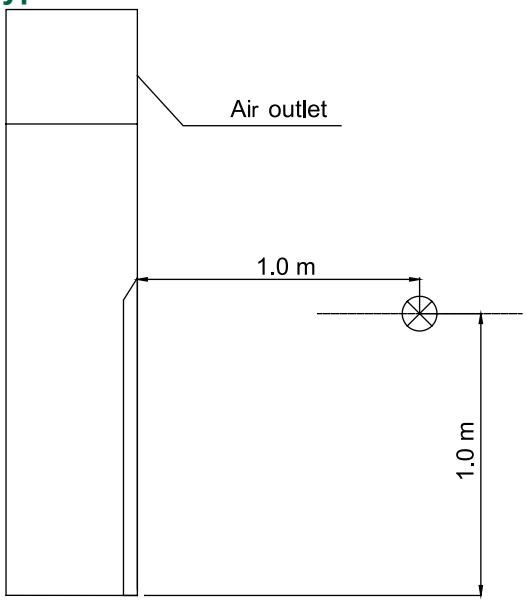
Model 36



Model45/50

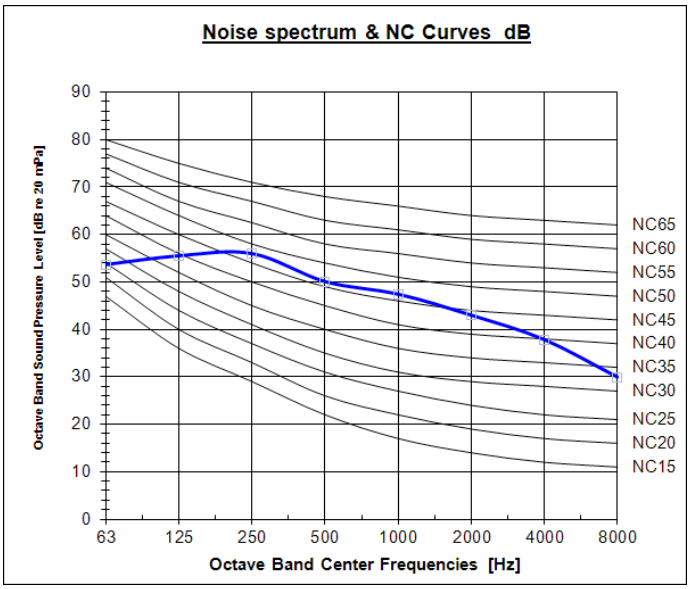


5.8 Floor Standing Type GMV-ND**L/A-T

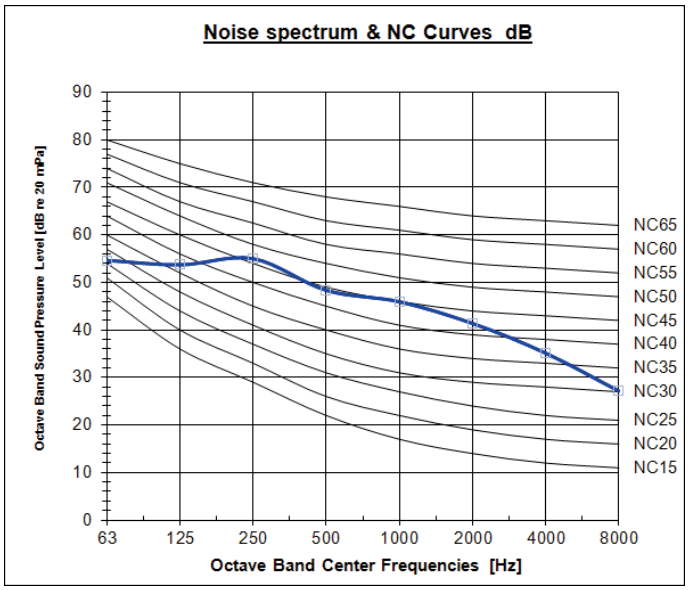


Transandient meter of sound level meter

GMV-ND100L/A-T

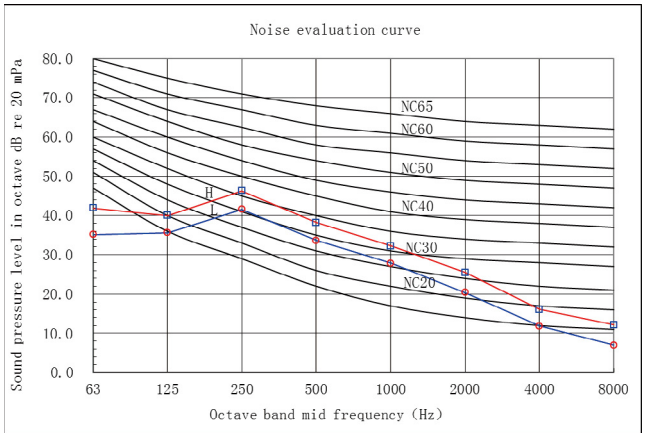


GMV-ND140L/A-T

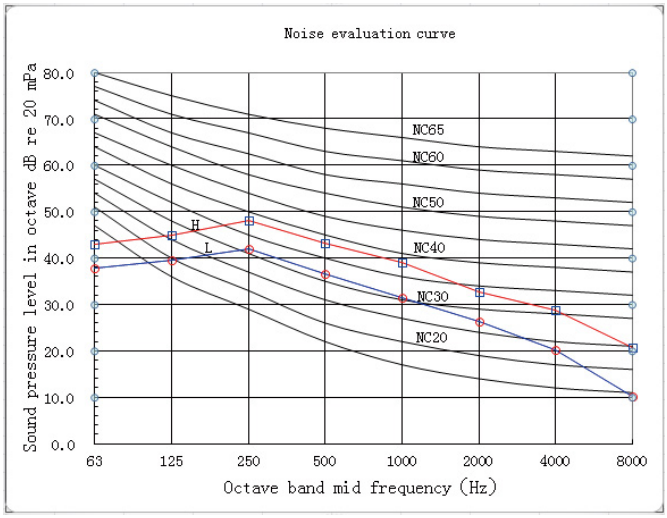


5.9 Compact Four-way Cassette Type GMV-ND**T/B-T

Model 22-36

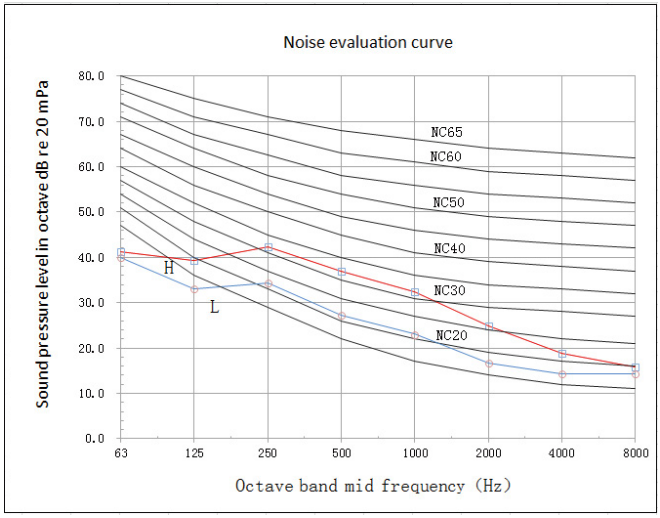


Model 45-56

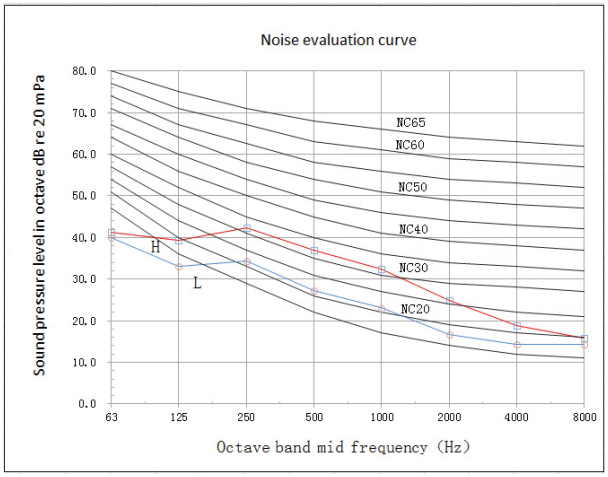


5.10 360°Air Discharge Compact Casssette Type GMV-ND**T/E-T

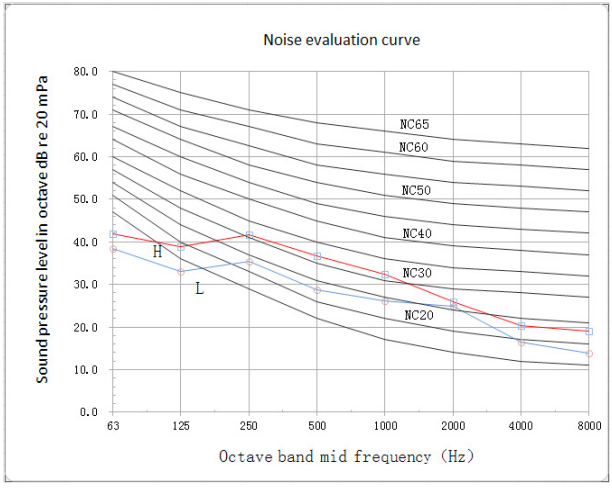
Model 15–18



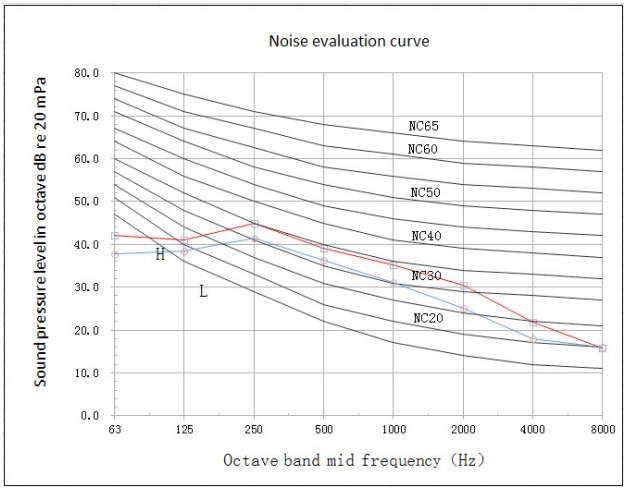
Model 22



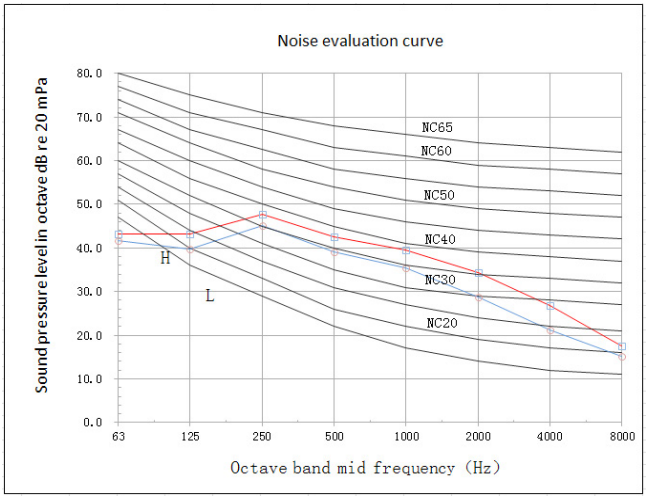
Model 28



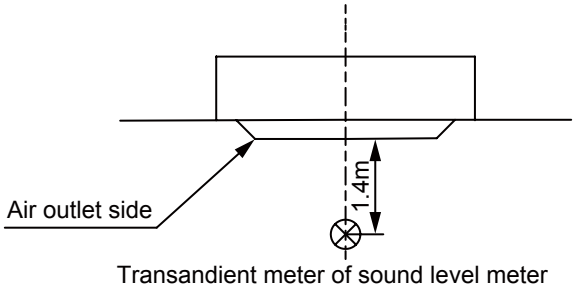
Model 36



Model 45-56



5.11 Two-way Cassette Type GMV-ND**TS/A-T



Transandient meter of sound level meter

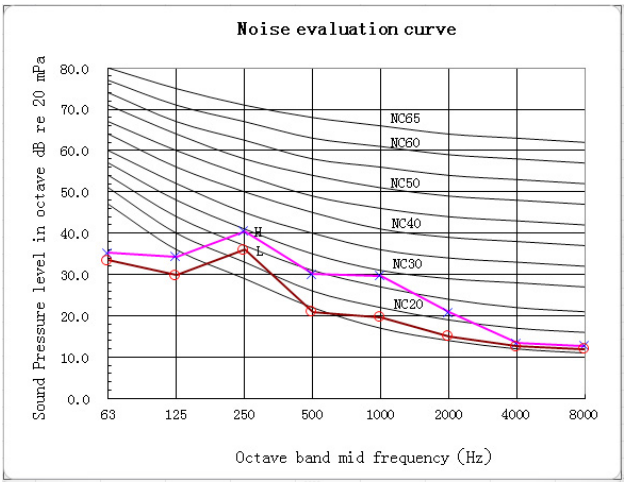
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

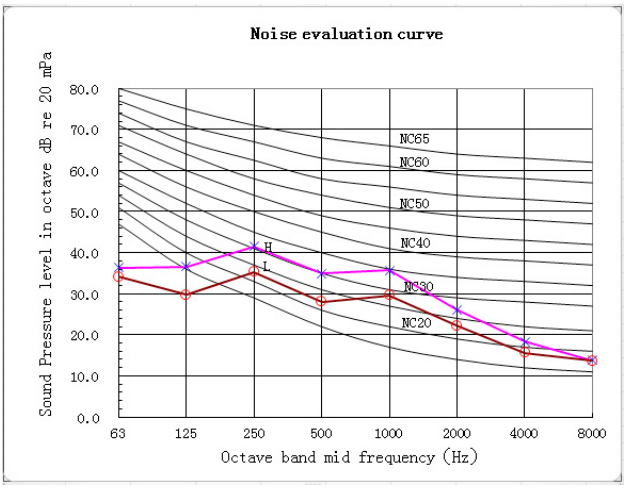
② The noise level is measured under the standard test condition.

5.11.1 GMV-ND**TS/A-T

Model 28-50

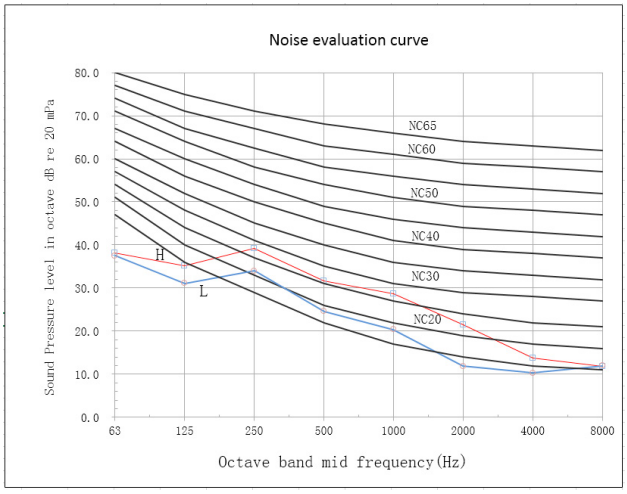


Model 56-71

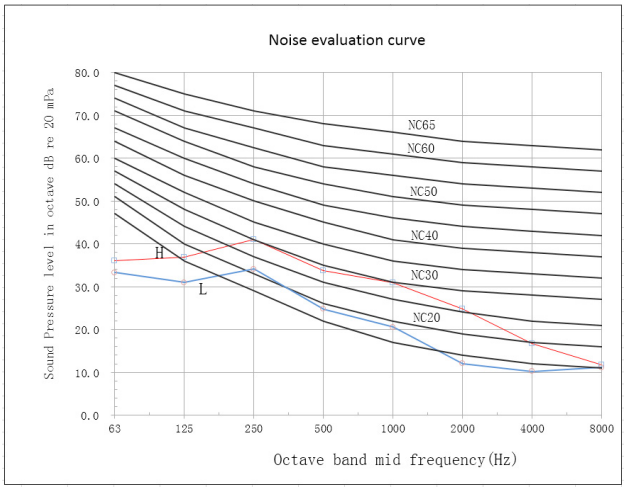


5.11.2 GMV-ND**TS/B-T

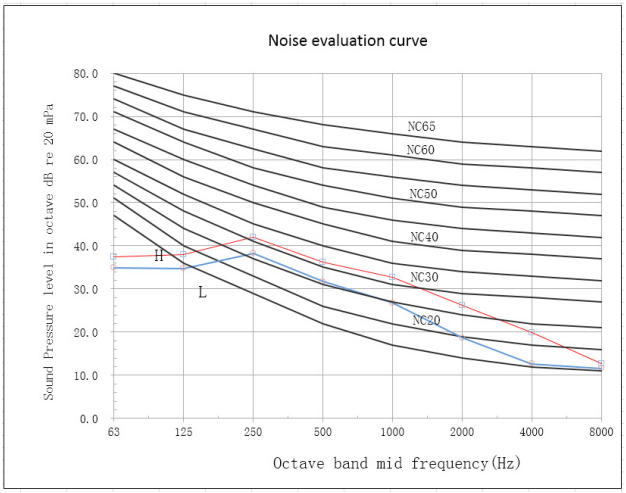
Model 28-36



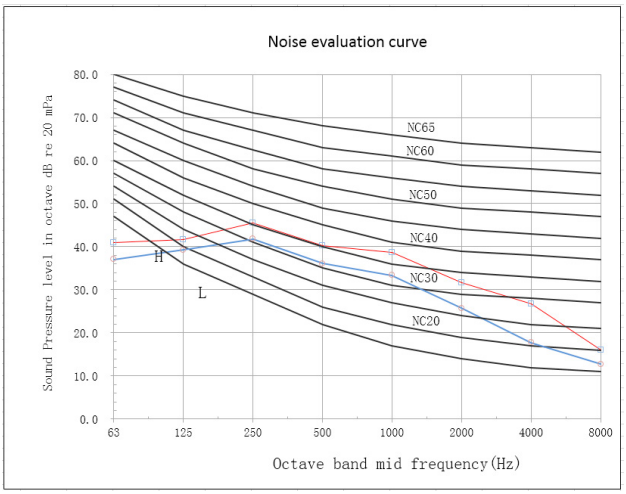
Model 45-50



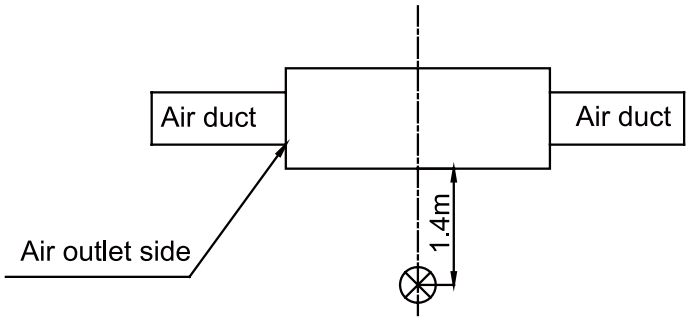
Model 56-63



Model 71-80



5.12 Fresh Air Processing Indoor Unit GMV-NDX**P/A-T



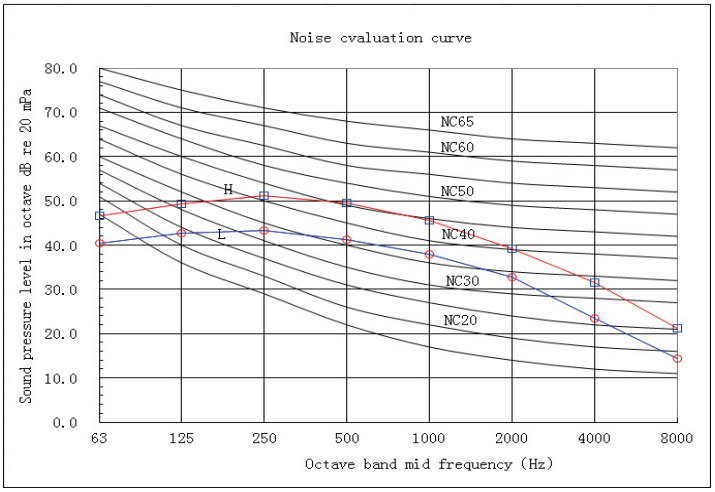
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

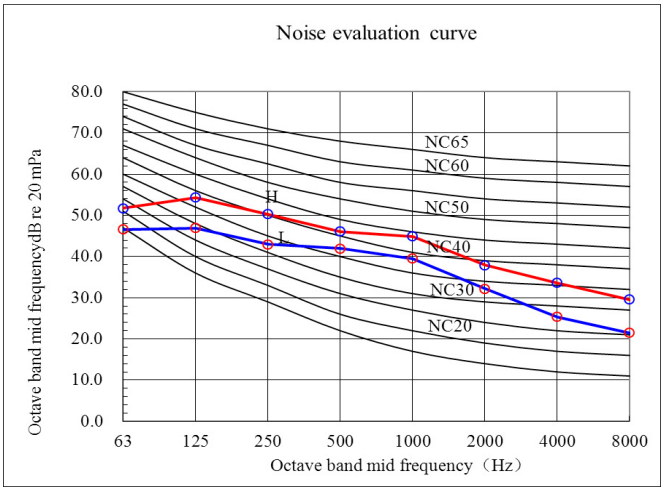
② The noise level is measured under the standard test condition.

③ The noise level is measured under the condition of rear air return.

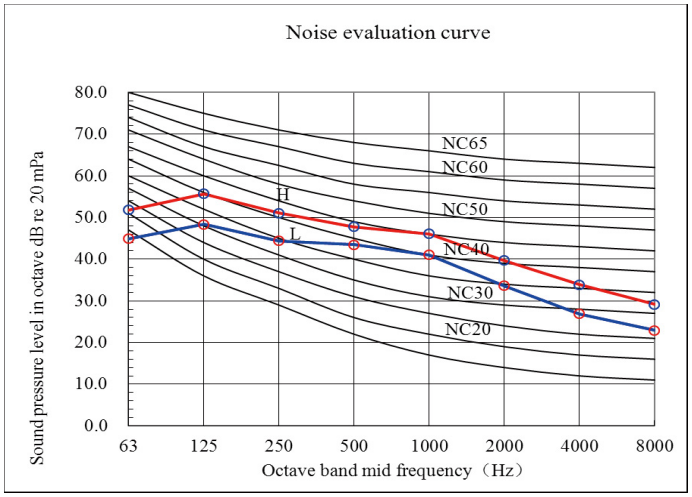
Model GMV-NDX125P/A-T, GMV-NDX140P/A-T



Model GMV-NDX224P/A-T

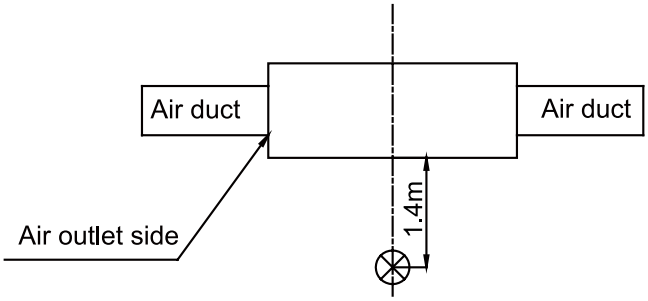


Model GMV-NDX250P/A-T, GMV-NDX280P/A-T



5.13 Air Handler type Indoor Unit

GMV-NR**A/A-D



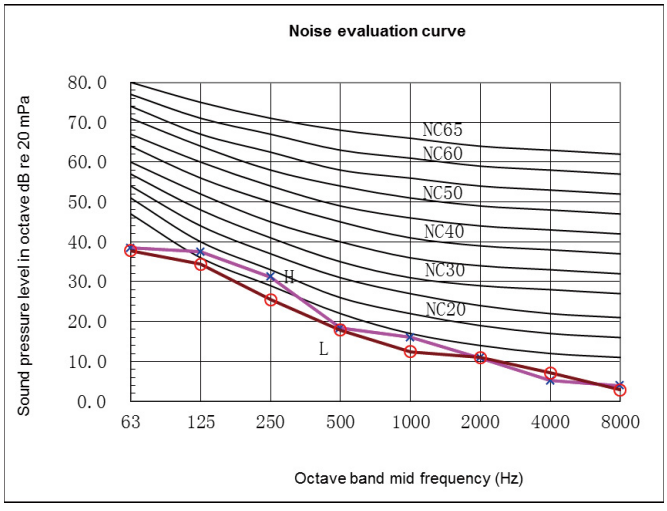
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

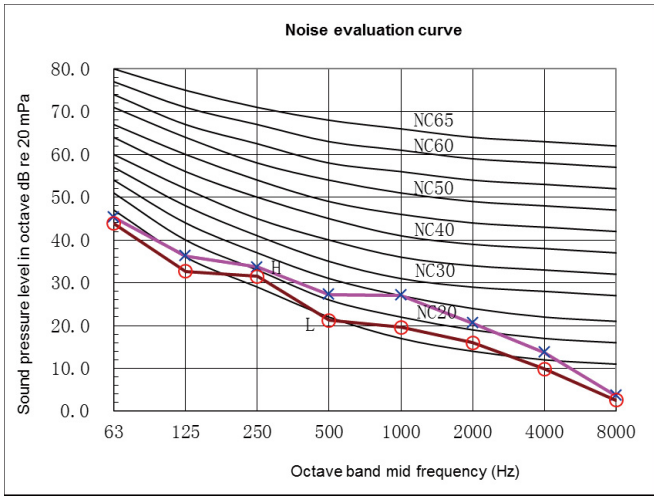
② The noise level is measured under the standard test condition.

③ The noise level is mer the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

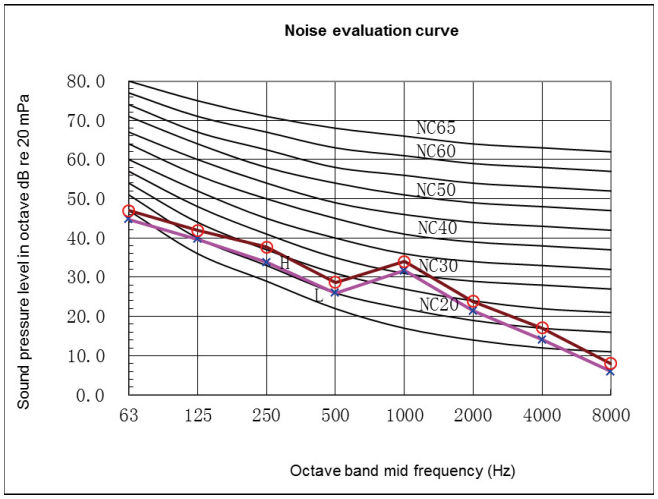
Model 71-90



Model 100-112

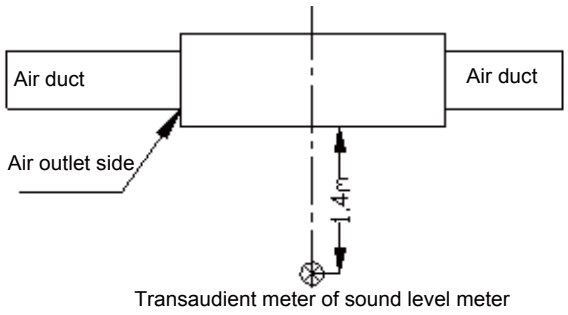


Model 140



5.14 Super High Static Pressure Duct Type Indoor Unit GMV-ND**PHS/B-T and GMV-ND**PH/A-T

GMV-ND**PHS/B-T

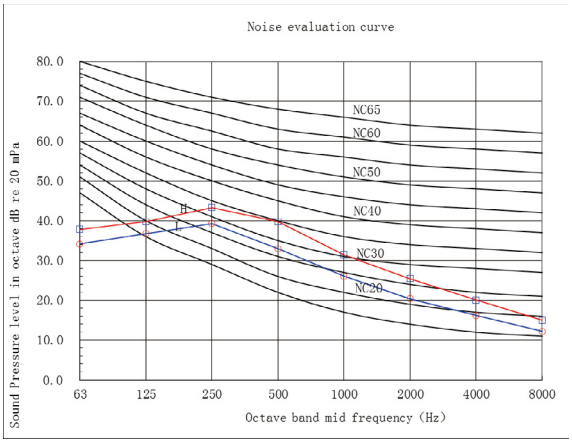


Notes:

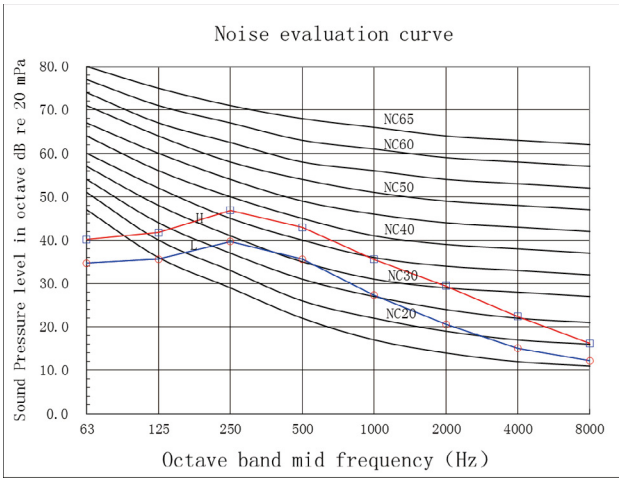
① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

② The noise level is measured under the standard test condition.
③ The noise level is measured under the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

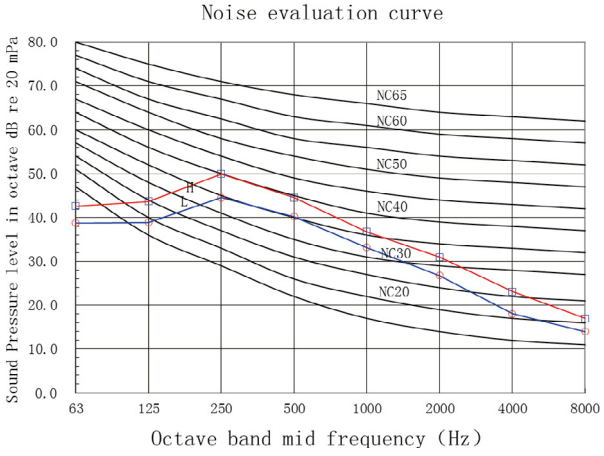
Model 22-36



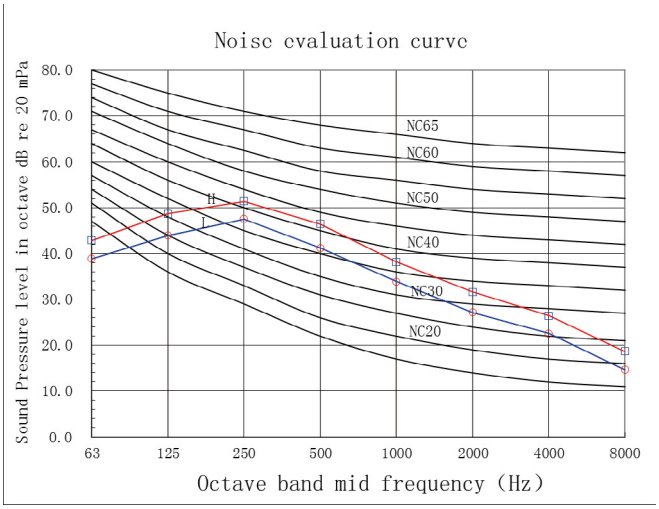
Model 40-80



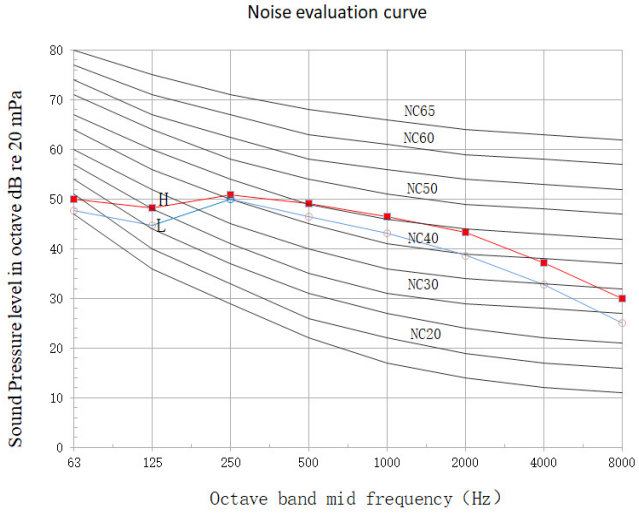
Model 90-125



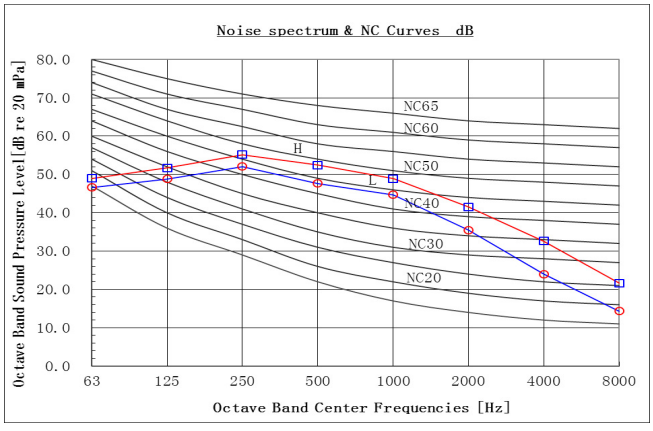
Model 140-160



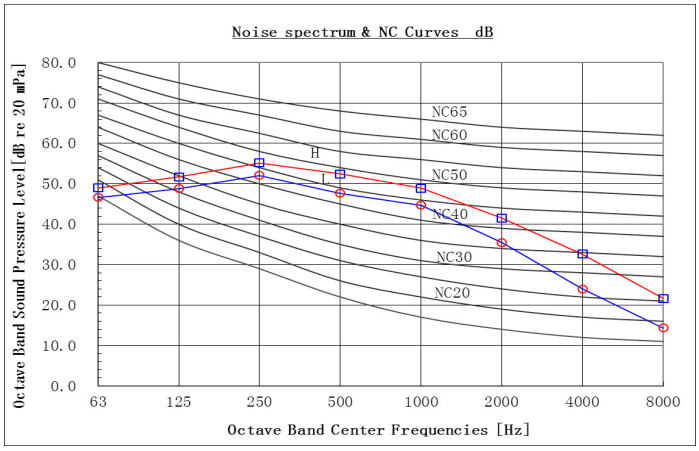
Model 180



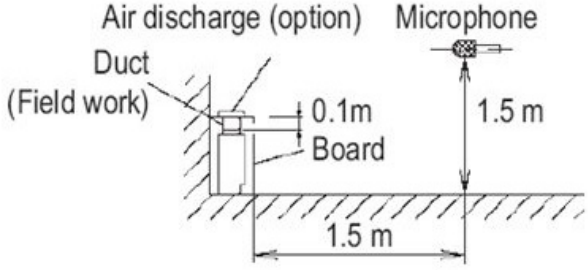
GMV-ND**PH/A-T
Model 224



Model 280



5.15 Concealed Floor Standing Type GMV-ND**ZA/A-T



Transandient meter of sound level meter

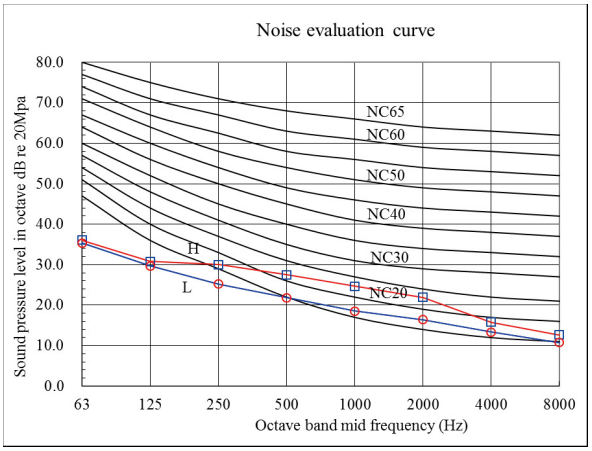
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

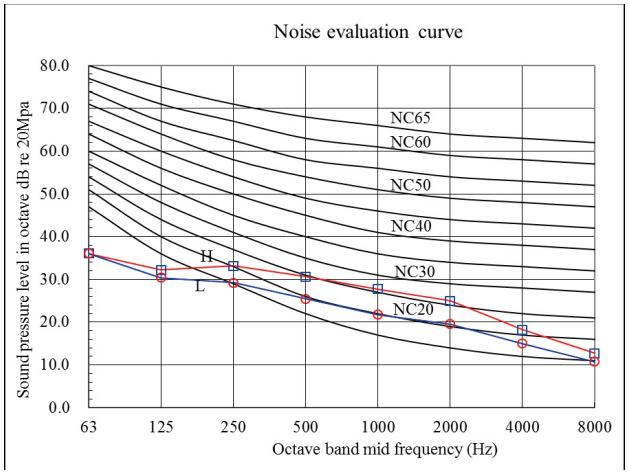
② The noise level is measured under the standard test condition.

③ The noise level is measured under the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

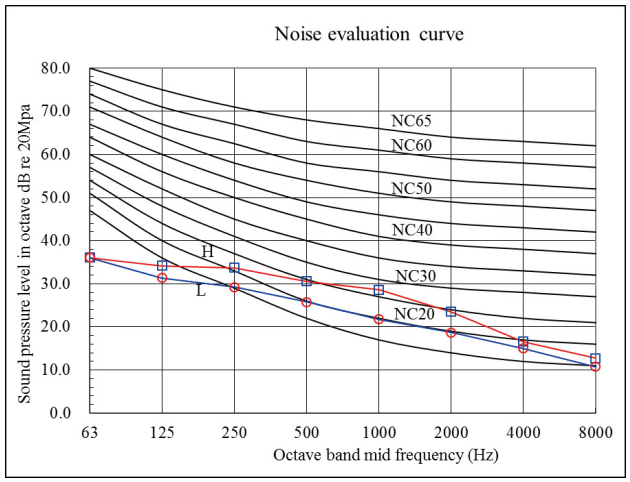
Model 22-28



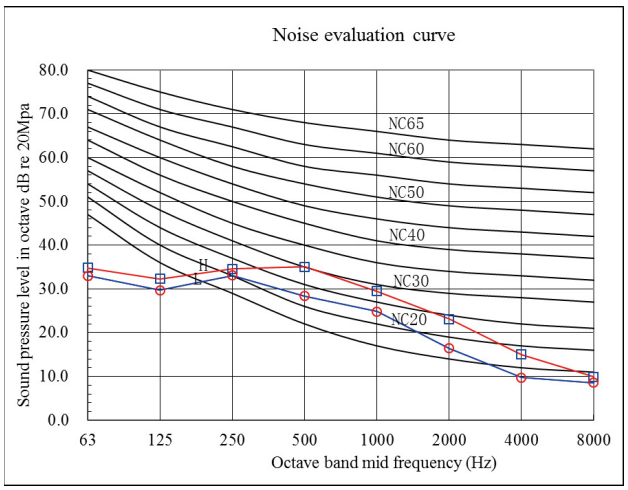
Model 36



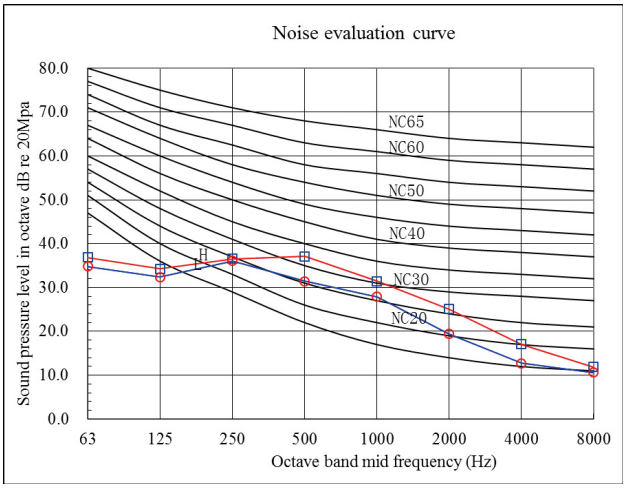
Model 45



Model 56-63



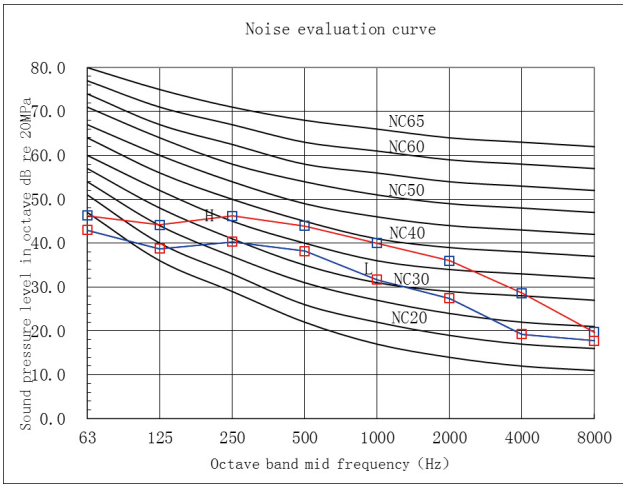
Model 71



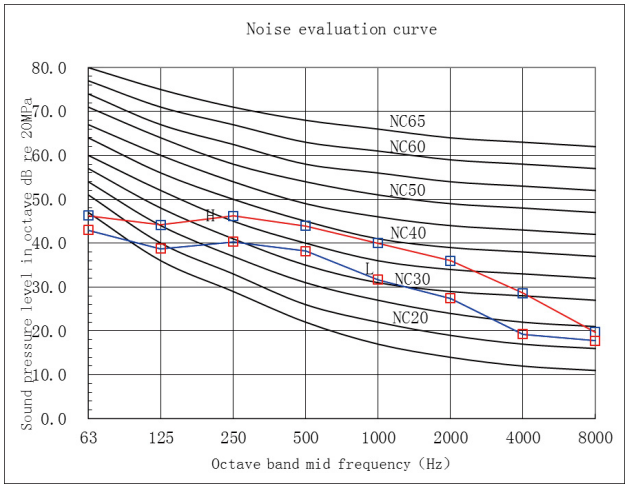
5.16 360°Air Discharge Cassette Type GMV-ND**T/C-T

5.16.1 GMV-ND**T/C-T

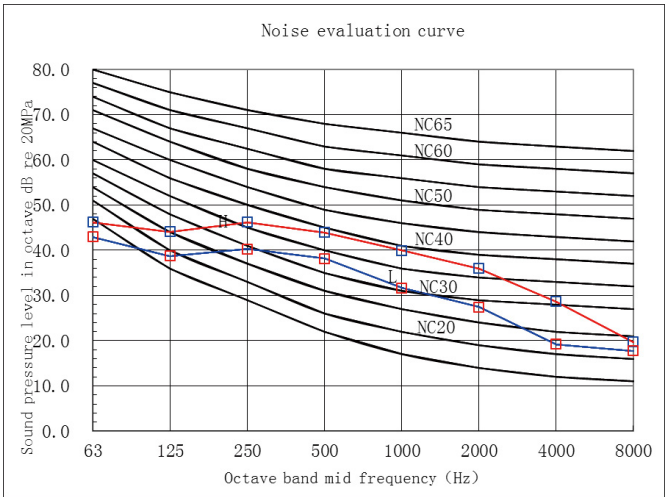
Model 22-45



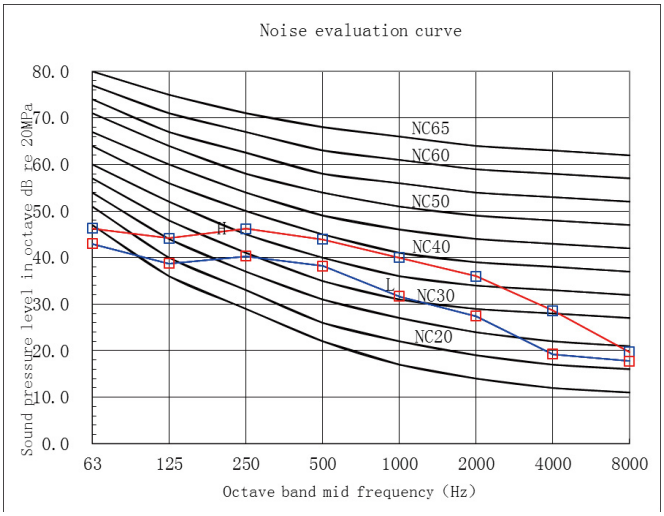
Model 50-71



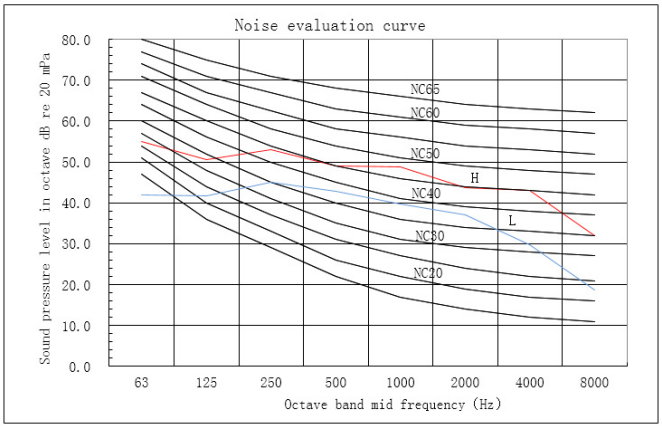
Model 80-100



Model 112-140

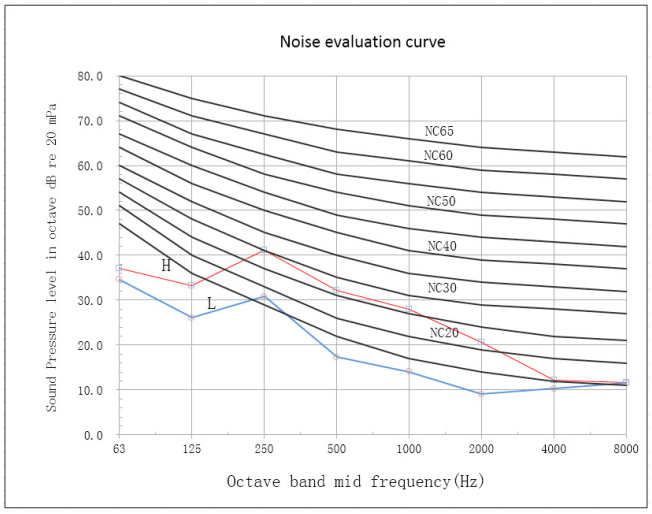


Model 160

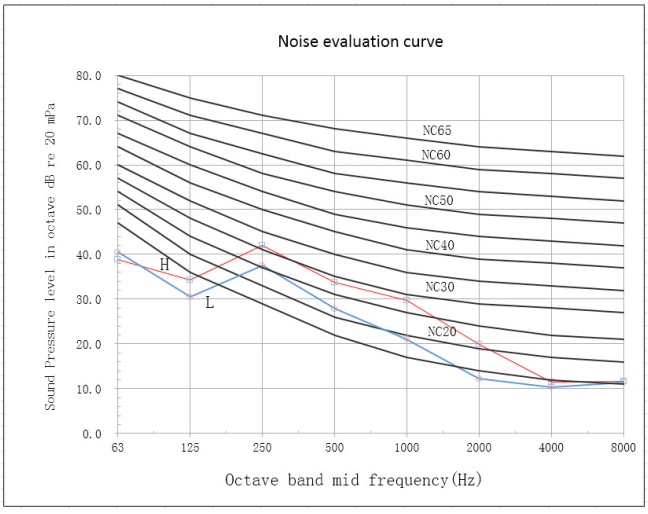


5.16.2 GMV-ND**T/C1-T

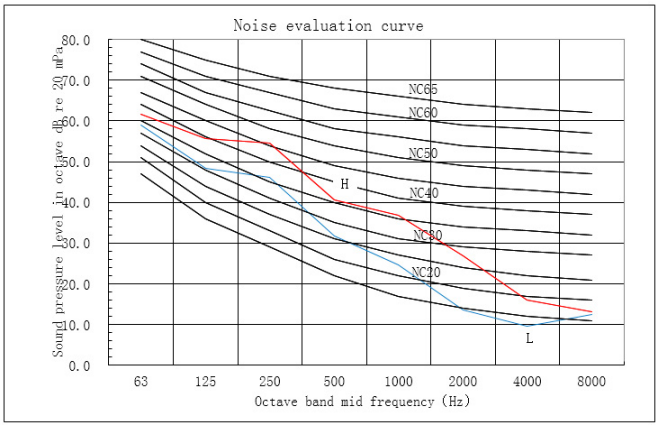
Model 22



Model 28/36/45

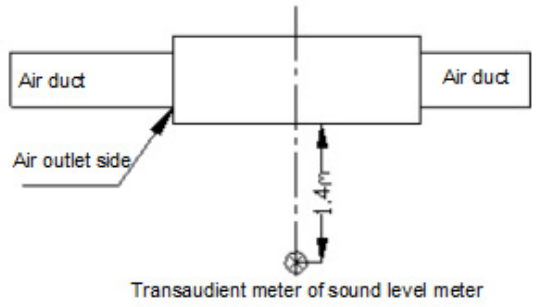


Model 50



5.17 High Static Pressure Duct Type Indoor Unit GMV-ND**PHS/D-T

GMV-ND**PHS/D-T



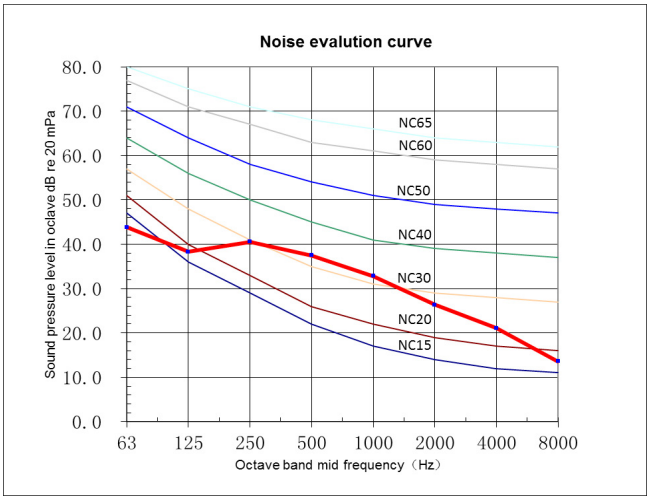
Notes:

① The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

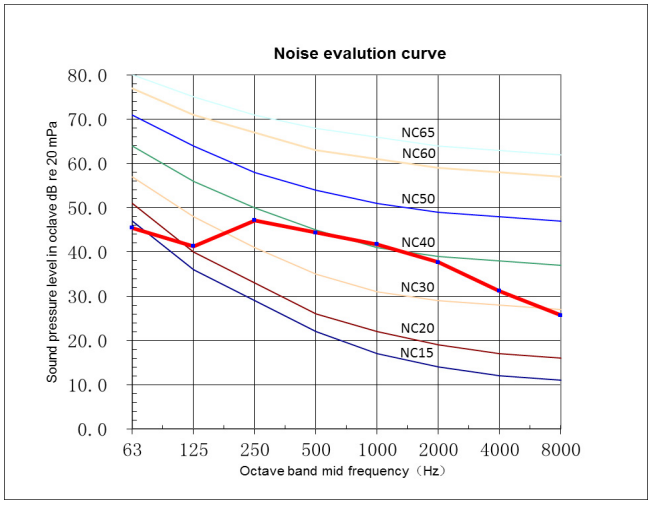
② The noise level is measured under the standard test condition.

③ The noise level is measured under the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

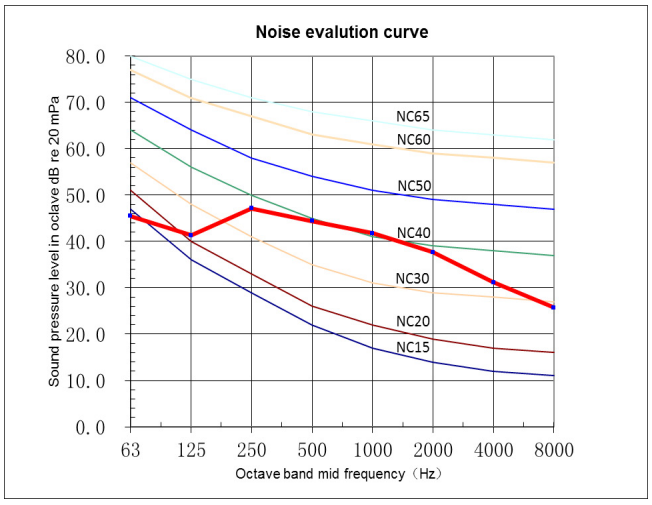
Model 22-36



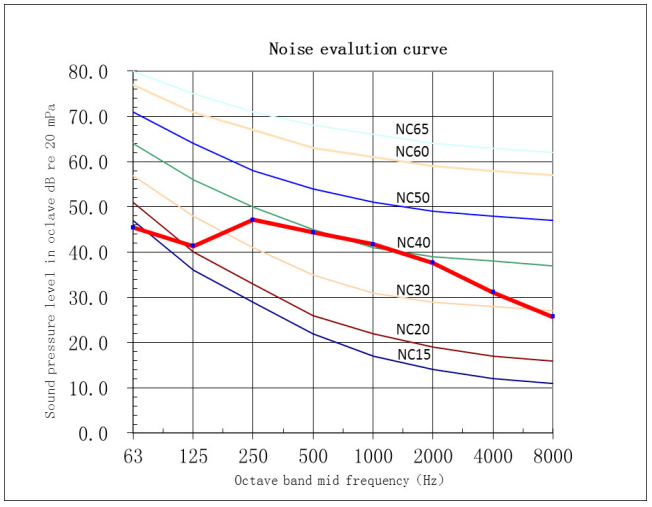
Model 40-50



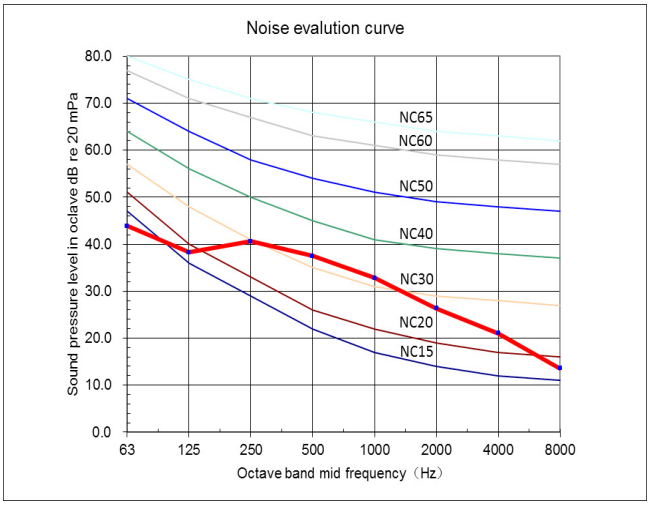
Model 56-63



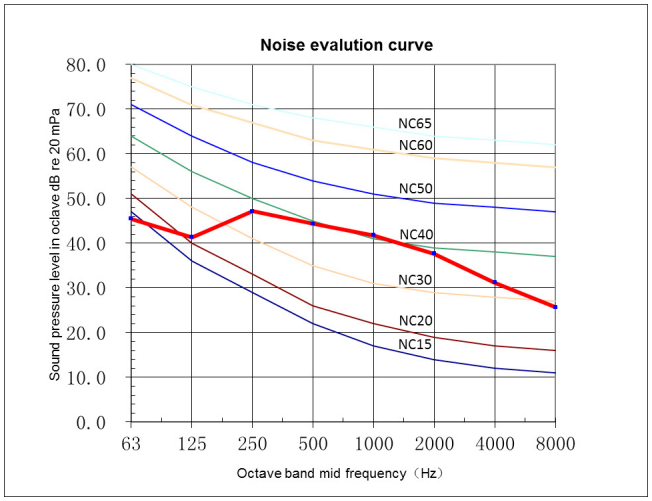
Model 71-80



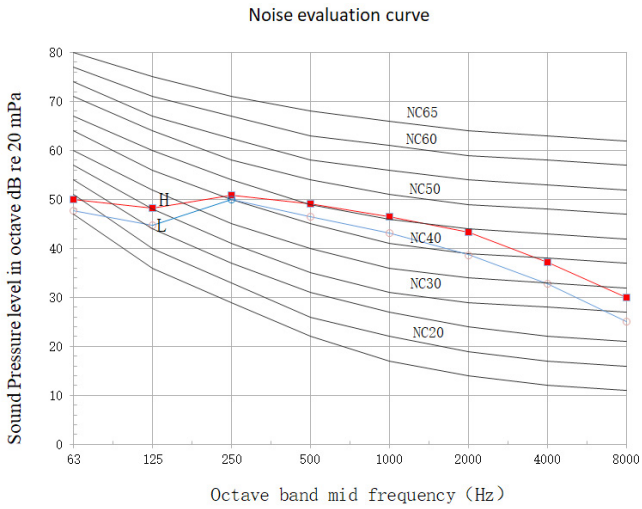
Model 90-125



Model 140-160

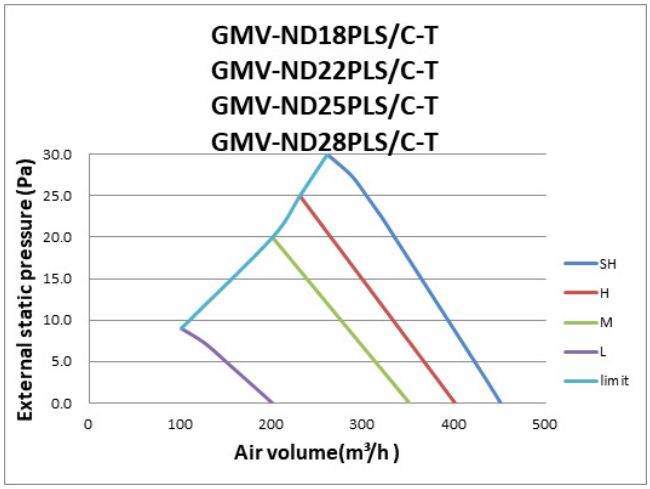


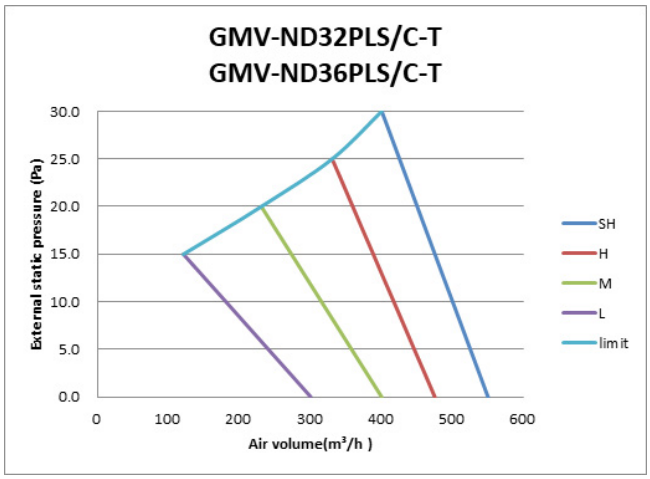
Model 180

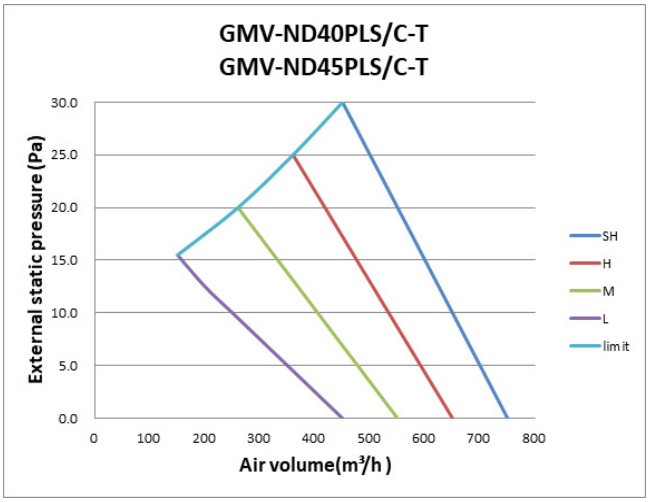


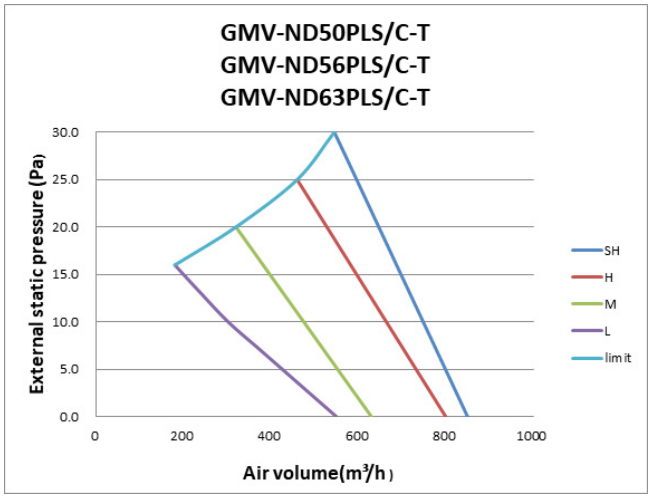
6 FAN CHARACTERISTICS

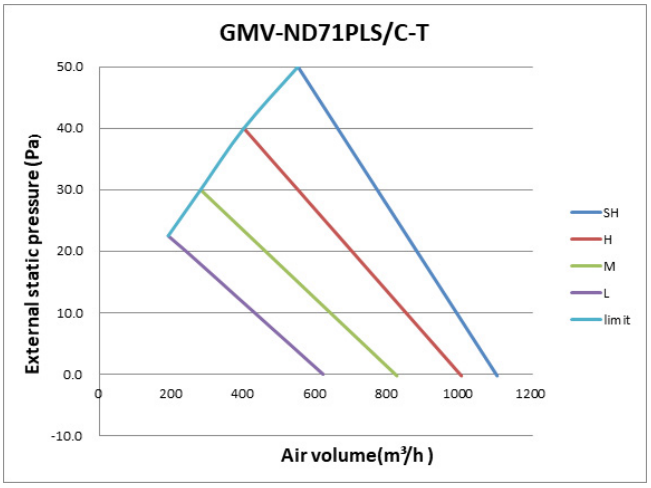
6.1 General static pressure Duct Type



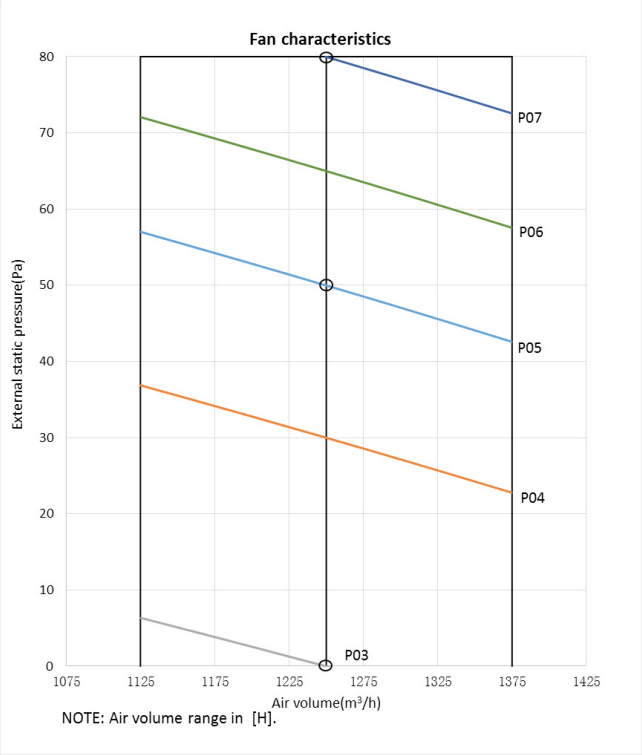




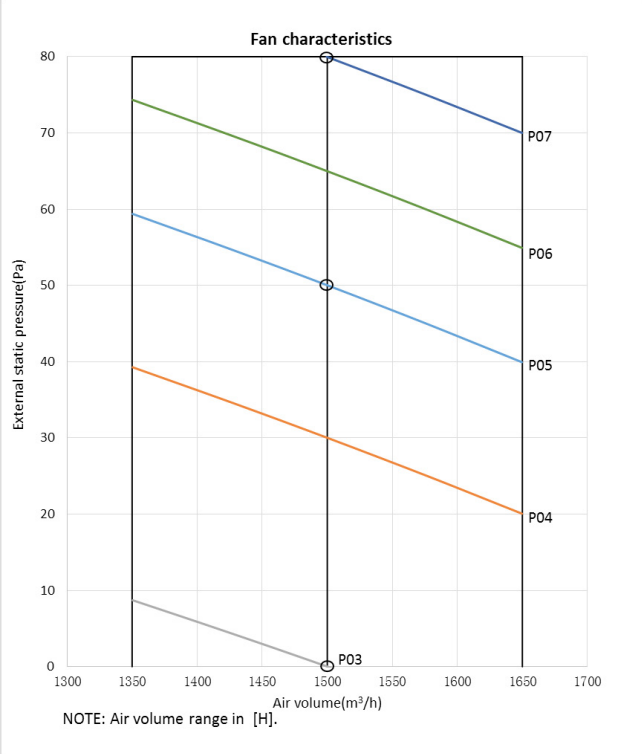

GMV-ND50PLS/C-T
GMV-ND56PLS/C-T
GMV-ND63PLS/C-T
External static pressure (Pa)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0
200
400
600
800
1000
Air volume(m³/h)
SH
H
M
L
limit


GMV-ND71PLS/C-T
External static pressure (Pa)
50.0
40.0
30.0
20.0
10.0
0.0
-10.0
0
200
400
600
800
1000
1200
Air volume(m³/h)
SH
H
M
L
limit

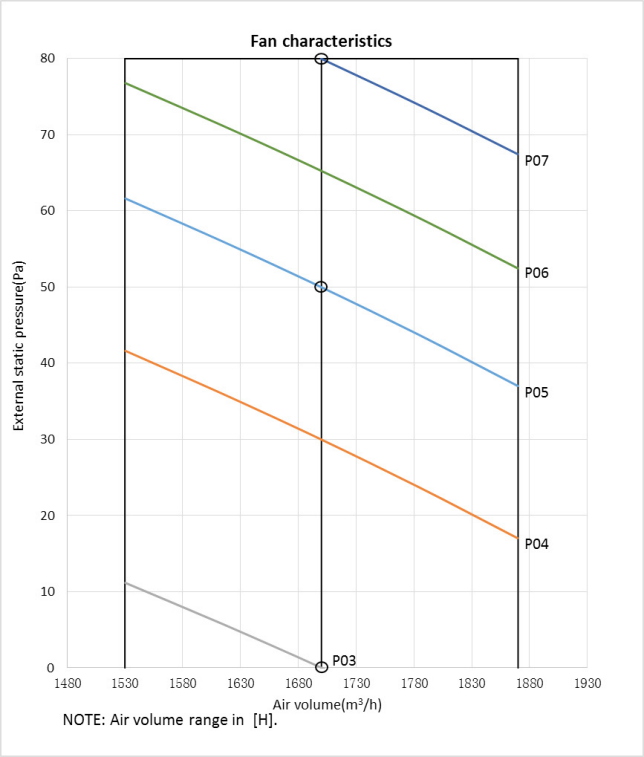
GMV-ND80PLS/C-T



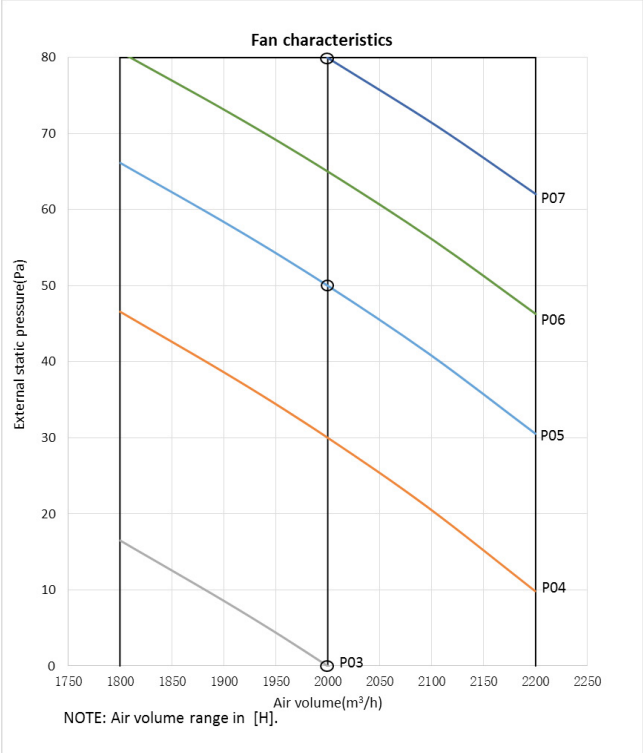
GMV-ND90PLS/C-T、GMV-ND100PLS/C-T



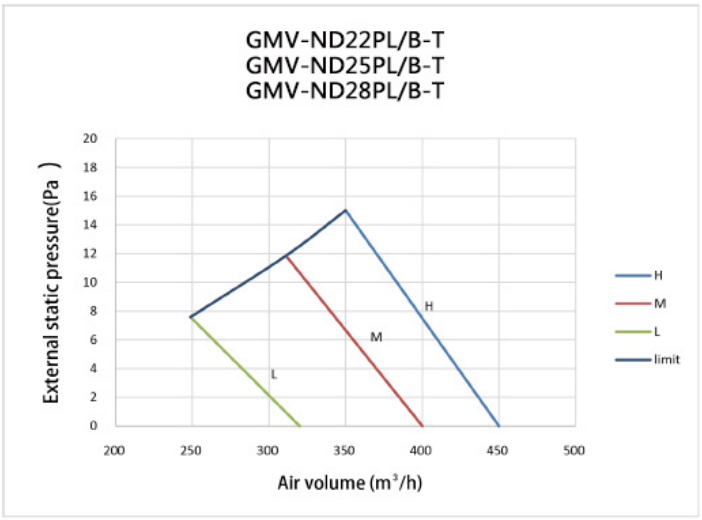
GMV-ND112PLS/C-T

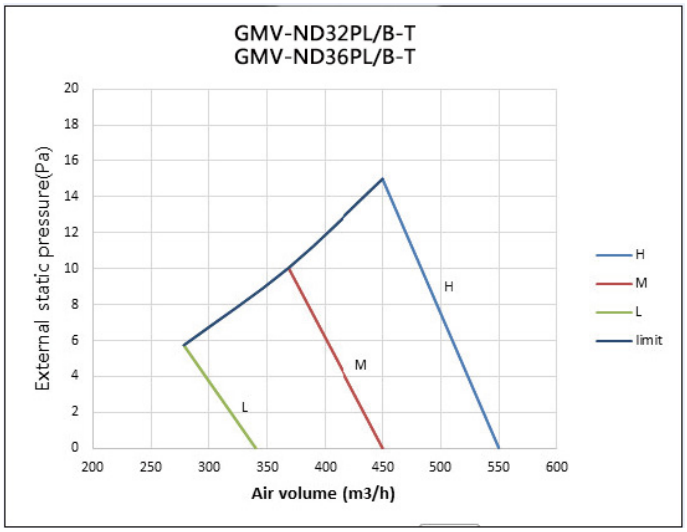


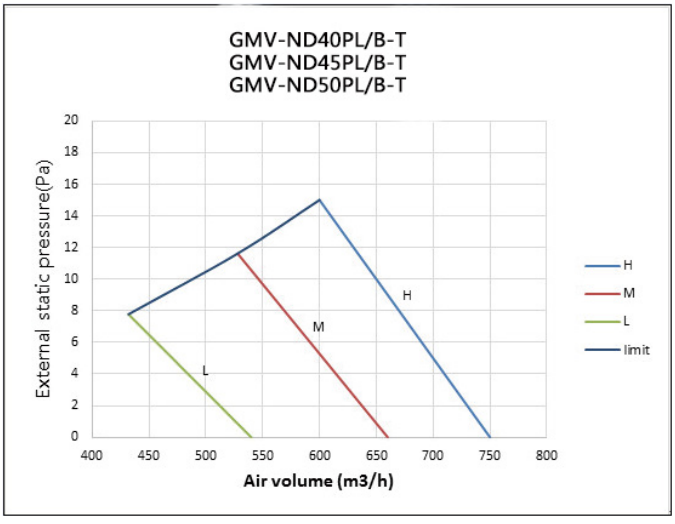
GMV-ND125PLS/C-T、GMV-ND140PLS/C-T

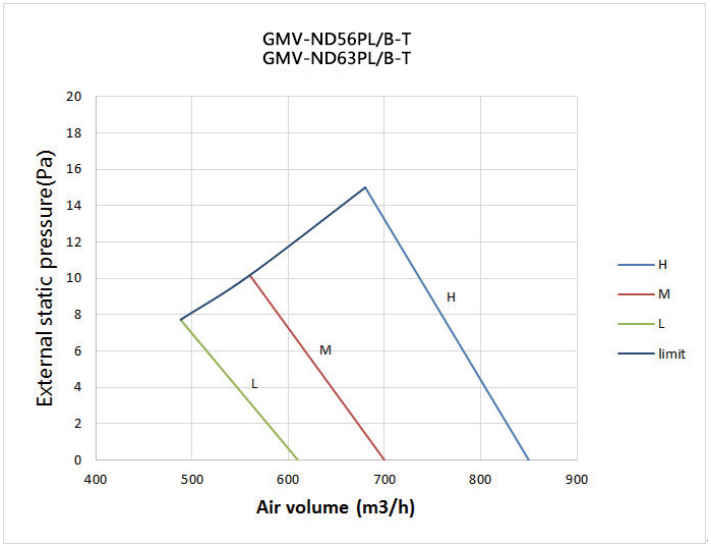


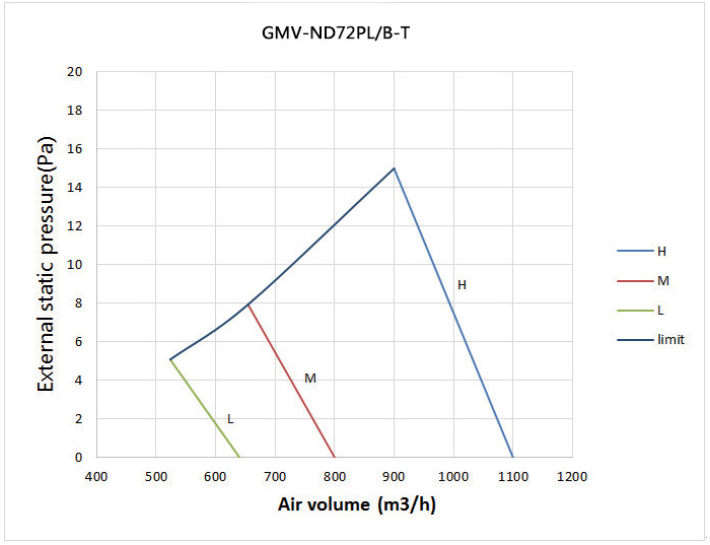
6.2 Slim Duct Type







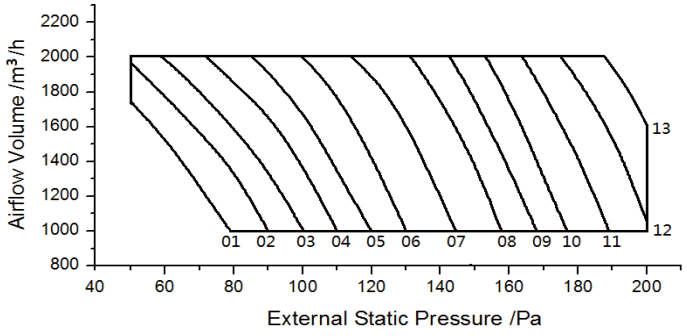




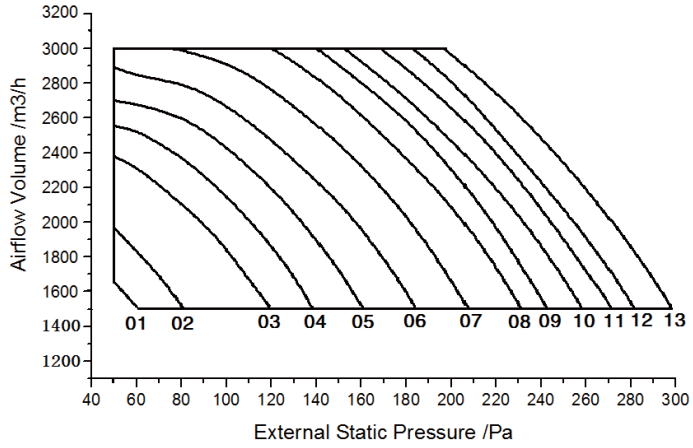
6.3 Fresh Air Processing Indoor Unit

When this unit is installed, select the static pressure according to the actual air volume from 1000~3500m³/h . There're 13 static pressure step for selection. Please refer to the Installation, Debugging and Maintenance Manual for the adjustment method for the static pressure. The curve diagram between air volume and static pressure is as below. The corresponding static pressure is from step 1 to step13 for the curve from lower to upper side.

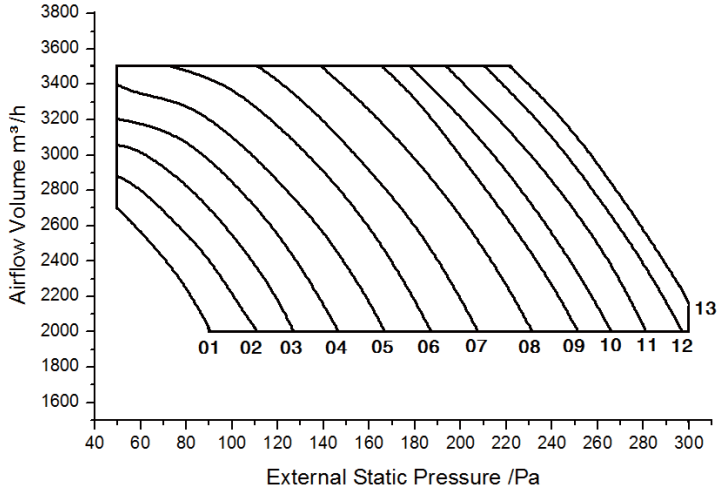
GMV-NDX125P/A-T / GMV-NDX140P/A-T



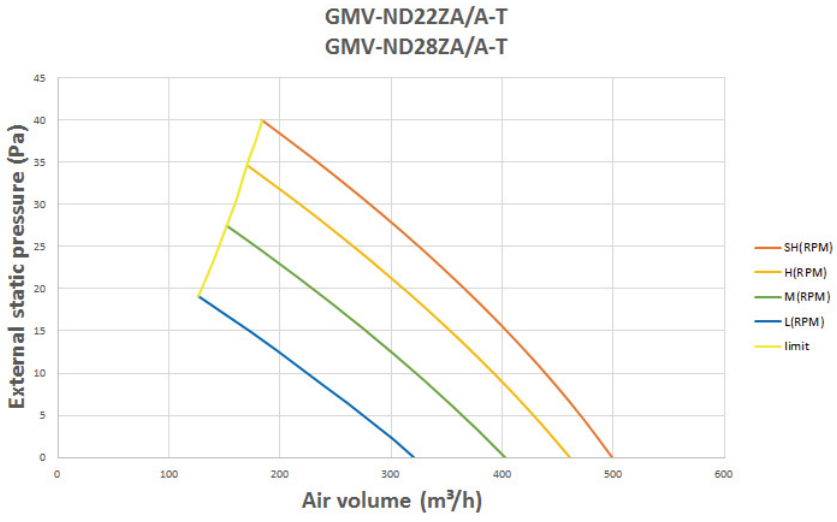
GMV-NDX224P/A-T

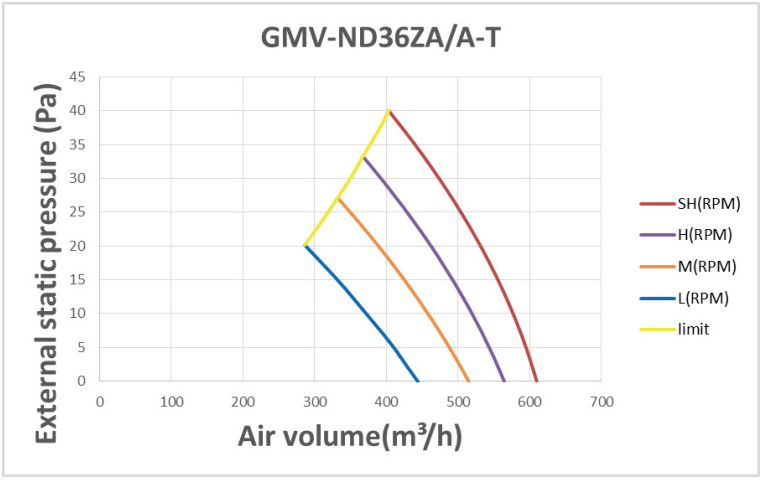


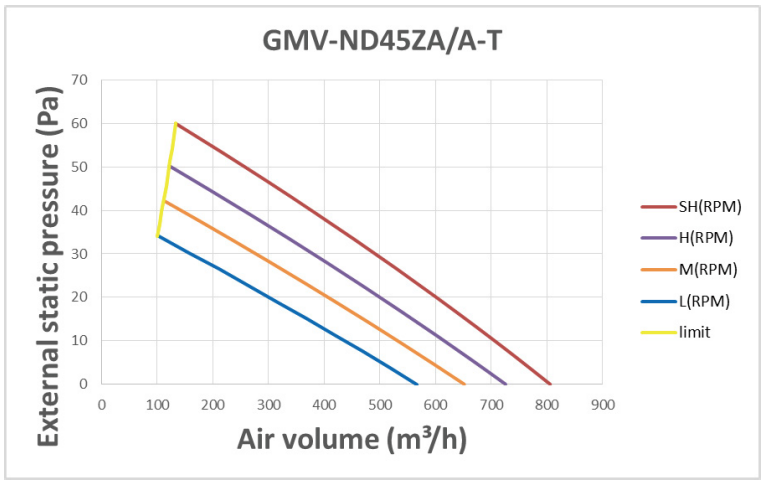
GMV-NDX250P/A-T / GMV-NDX280P/A-T

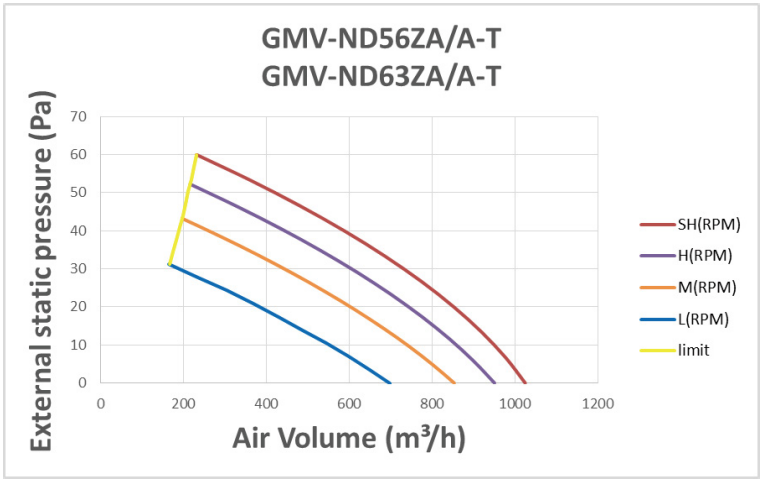


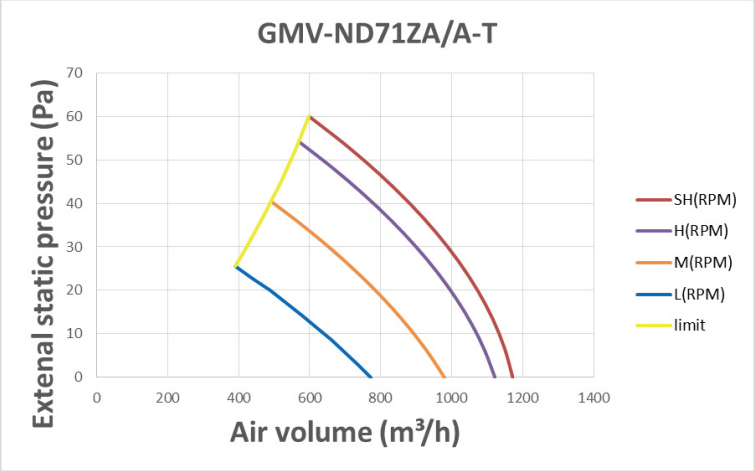
6.4 Concealed Floor Standing Type




GMV-ND36ZA/A-T
External static pressure (Pa)
45
40
35
30
25
20
15
10
5
0
0
100
200
300
400
500
600
700
Air volume(m³/h)
SH(RPM)
H(RPM)
M(RPM)
L(RPM)
limit

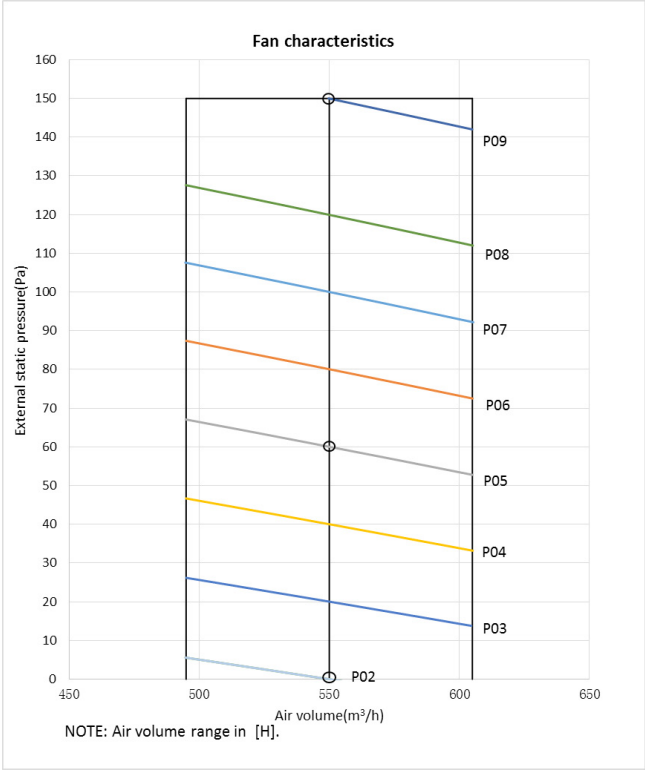

GMV-ND45ZA/A-T
External static pressure (Pa)
70
60
50
40
30
20
10
0
0
100
200
300
400
500
600
700
800
900
Air volume (m³/h)
SH(RPM)
H(RPM)
M(RPM)
L(RPM)
limit


GMV-ND56ZA/A-T
GMV-ND63ZA/A-T
External static pressure (Pa)
70
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
Air Volume (m³/h)
SH(RPM)
H(RPM)
M(RPM)
L(RPM)
limit

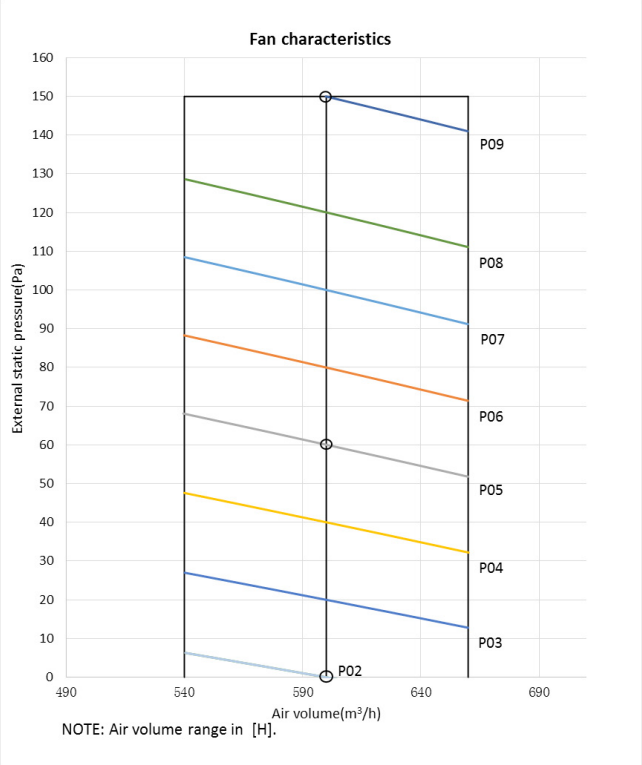


6.5 Super High Static Pressure Duct Type Indoor Unit

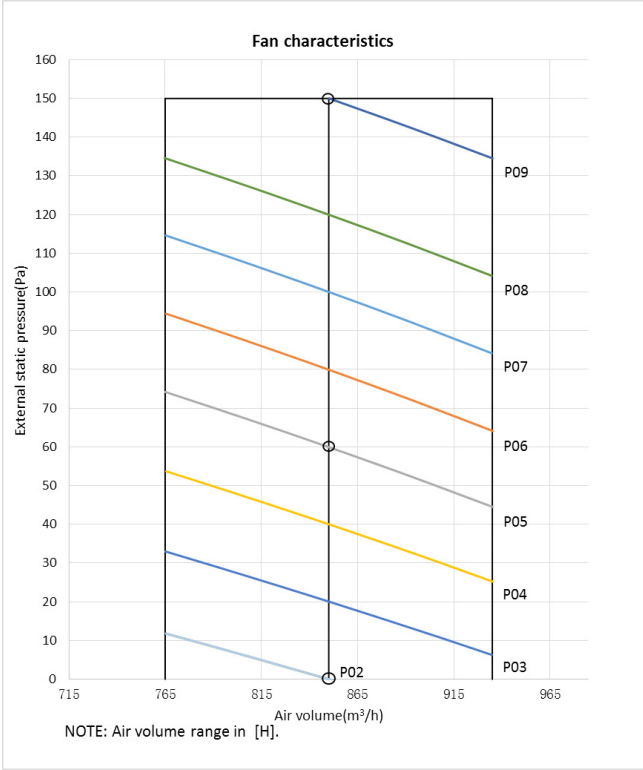
GMV-ND22PHS/B-T、GMV-ND25PHS/B-T、GMV-ND28PHS/B-T



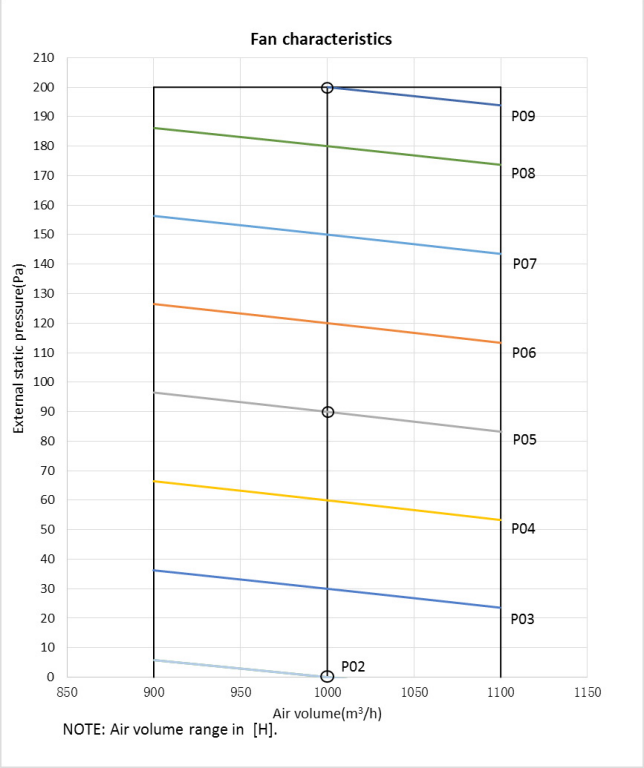
GMV-ND32PHS/B-T、GMV-ND36PHS/B-T



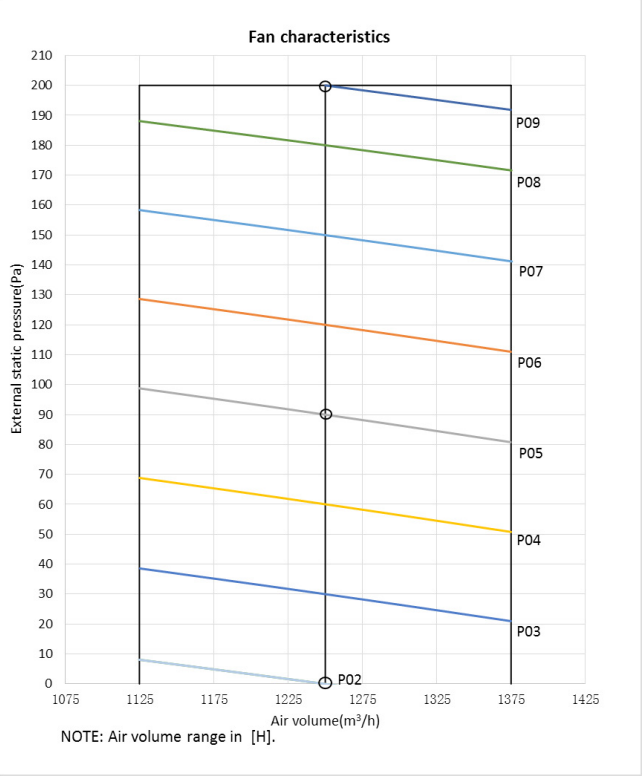
GMV-ND40PHS/B-T、GMV-ND45PHS/B-T、GMV-ND50PHS/B-T



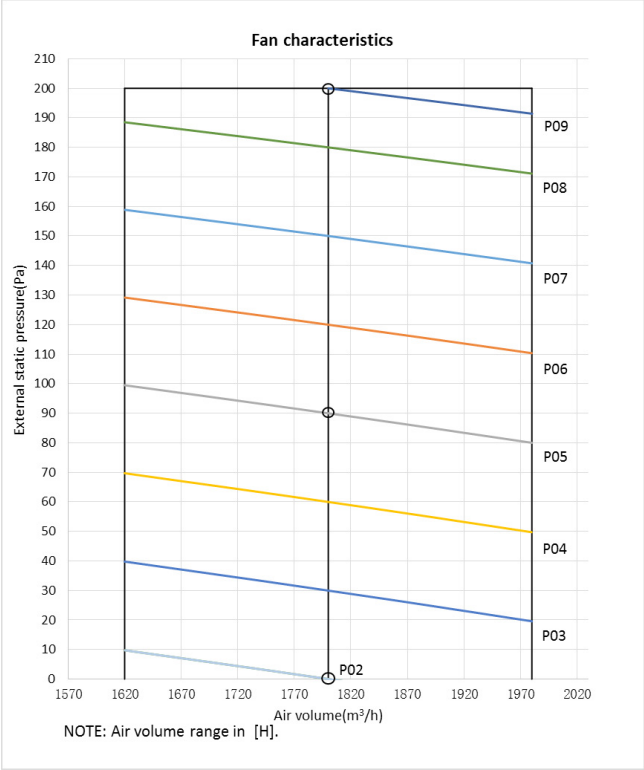
GMV-ND56PHS/B-T、GMV-ND63PHS/B-T



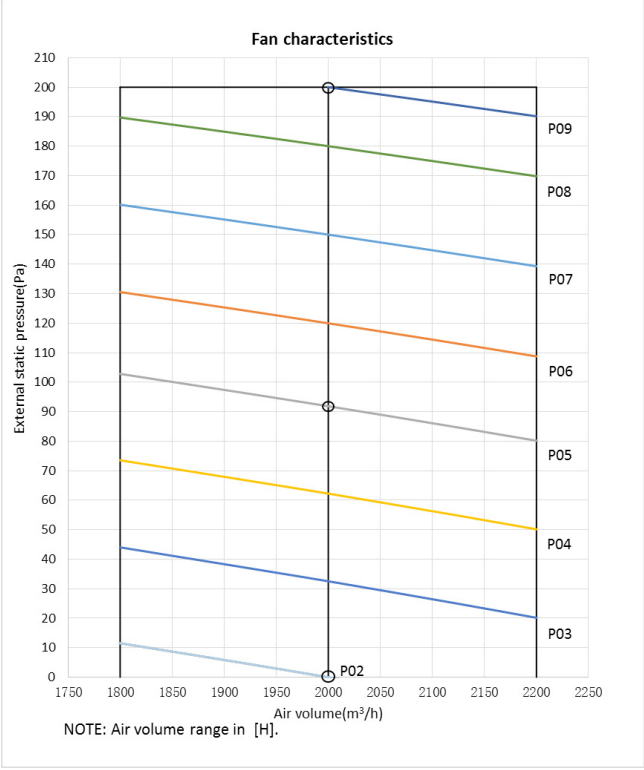
GMV-ND71PHS/B-T、GMV-ND80PHS/B-T



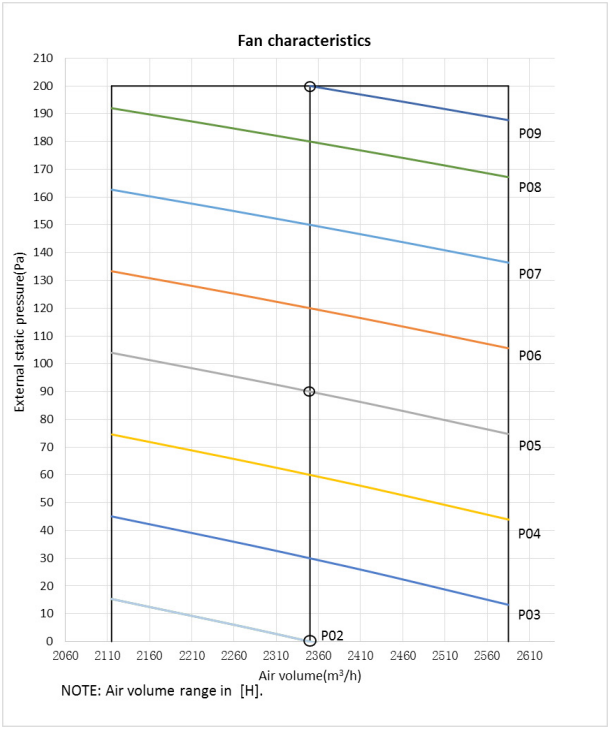
GMV-ND90PHS/B-T、GMV-ND100PHS/B-T



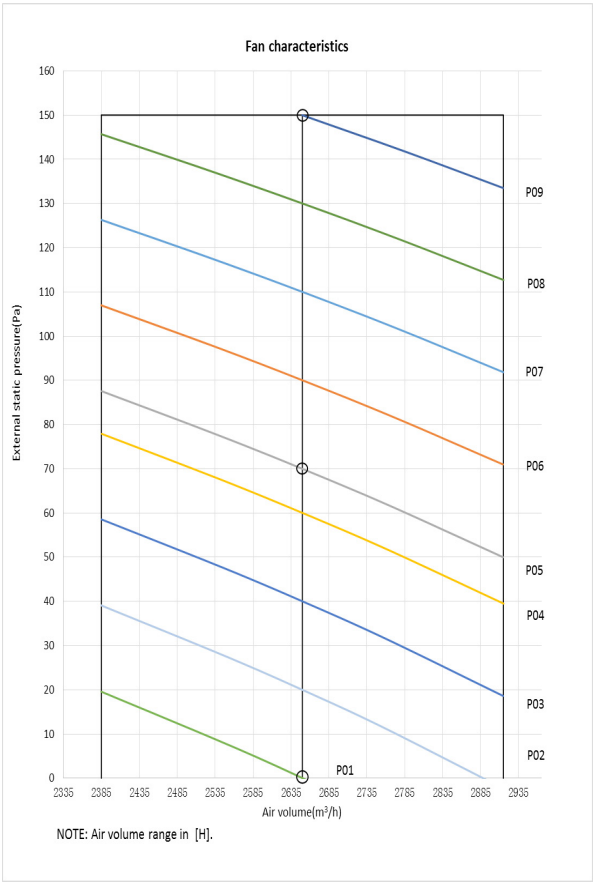
GMV-ND112PHS/B-T、GMV-ND125PHS/B-T



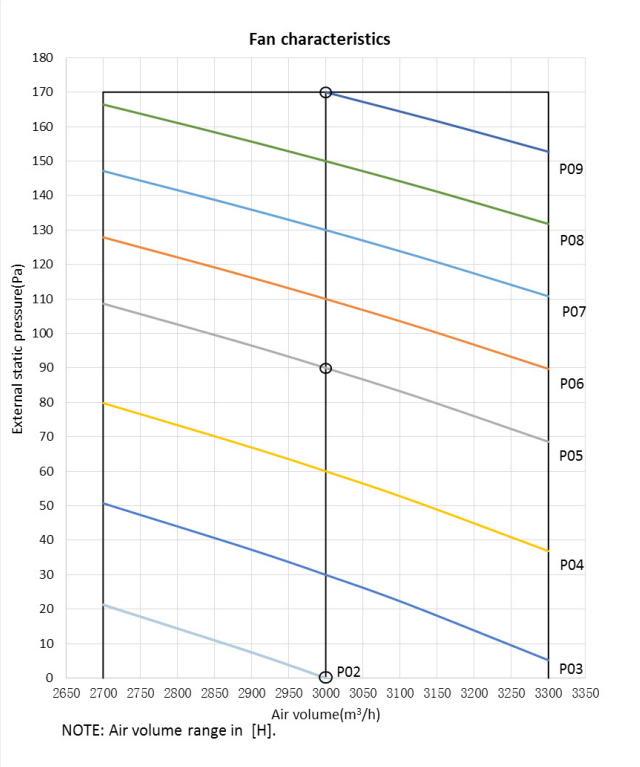
GMV-ND140PHS/B-T



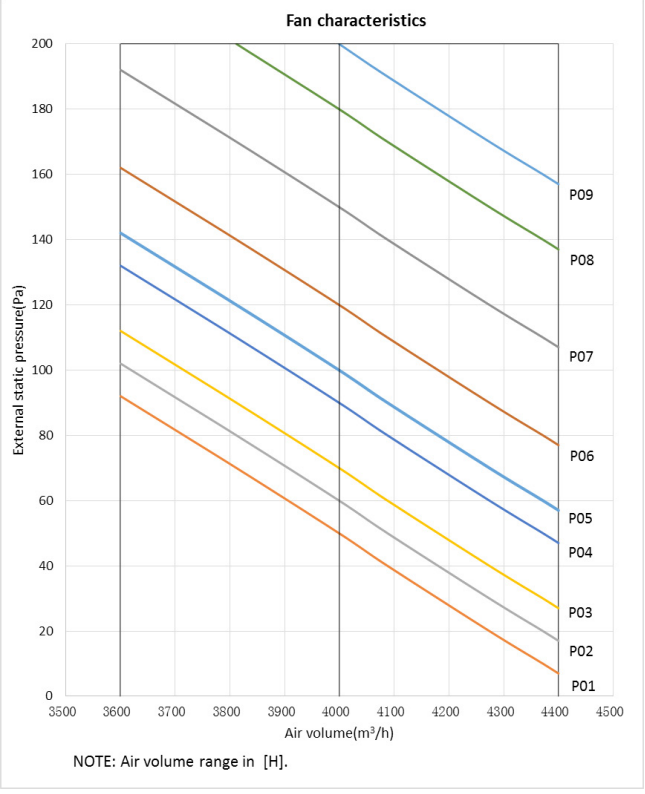
GMV-ND160PHS/B-T



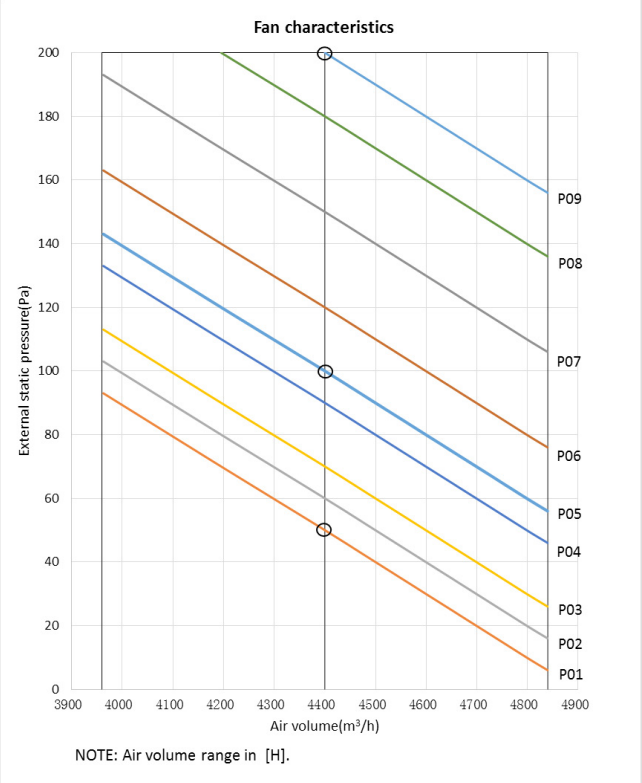
GMV-ND180PHS/B-T



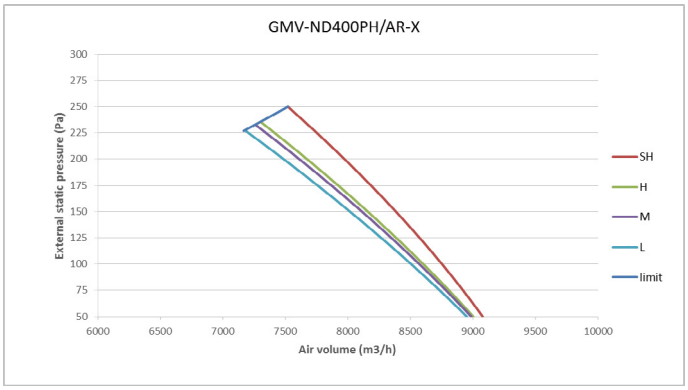
GMV-ND224PH/A-T



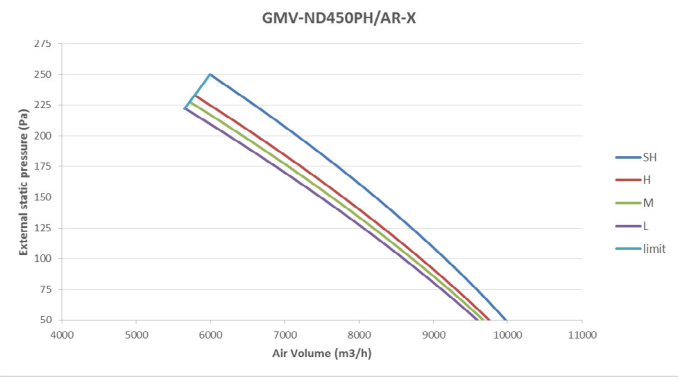
GMV-ND280PH/A-T



GMV-ND400PH/AR-X

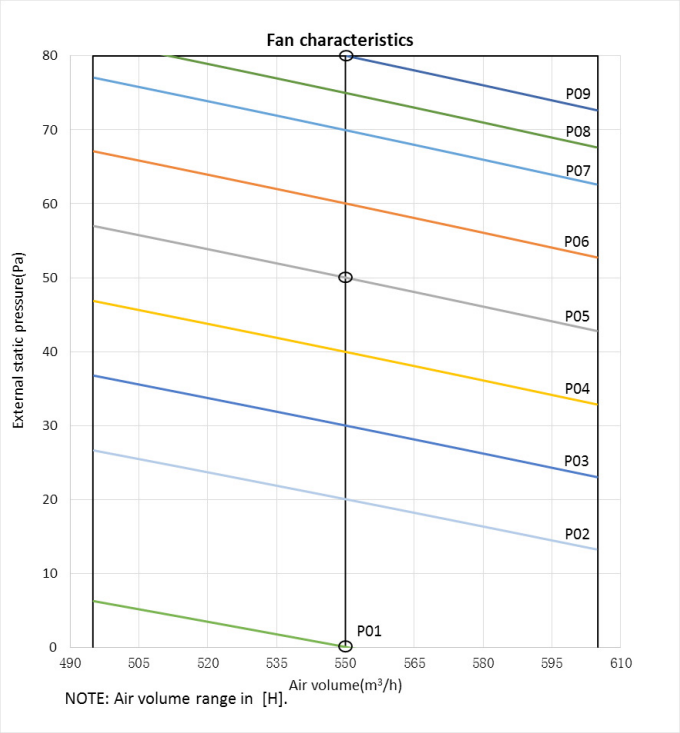


GMV-ND450PH/AR-X

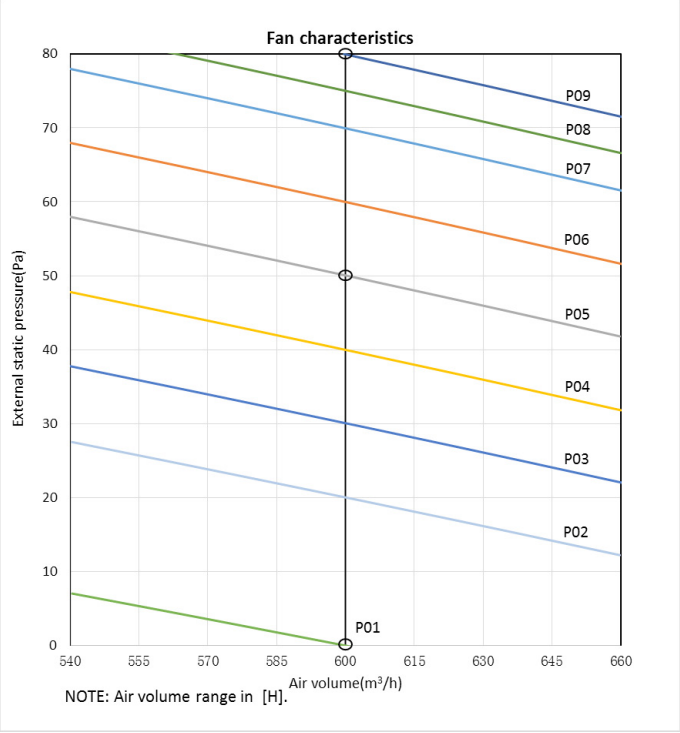


6.6 High Static Pressure Duct Type Indoor Unit

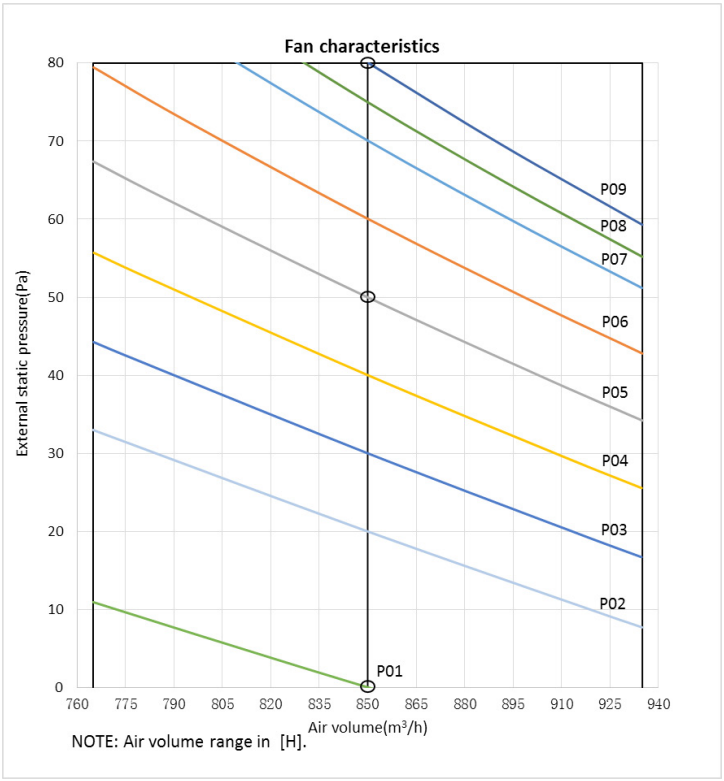
GMV-ND22PHS/D-T、GMV-ND25PHS/D-T、GMV-ND28PHS/D-T



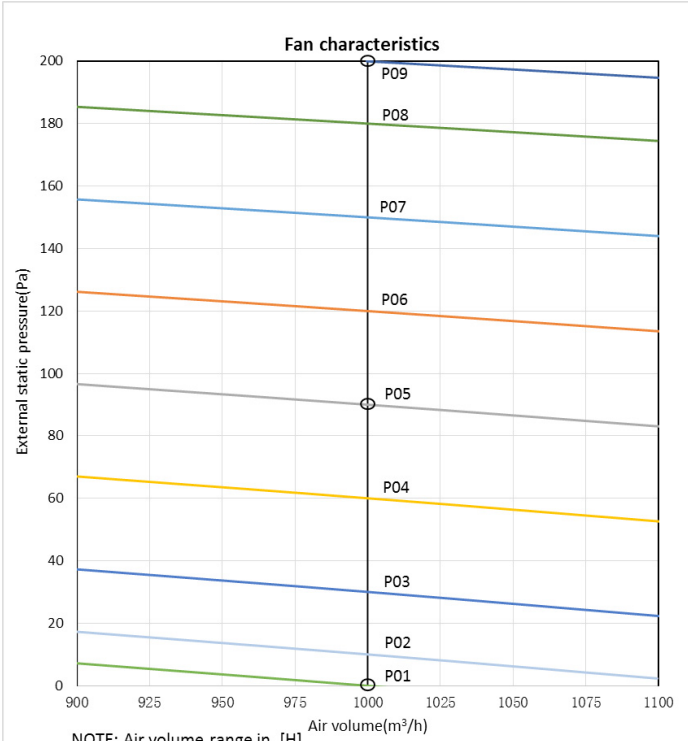
GMV-ND32PHS/D-T、GMV-ND36PHS/D-T



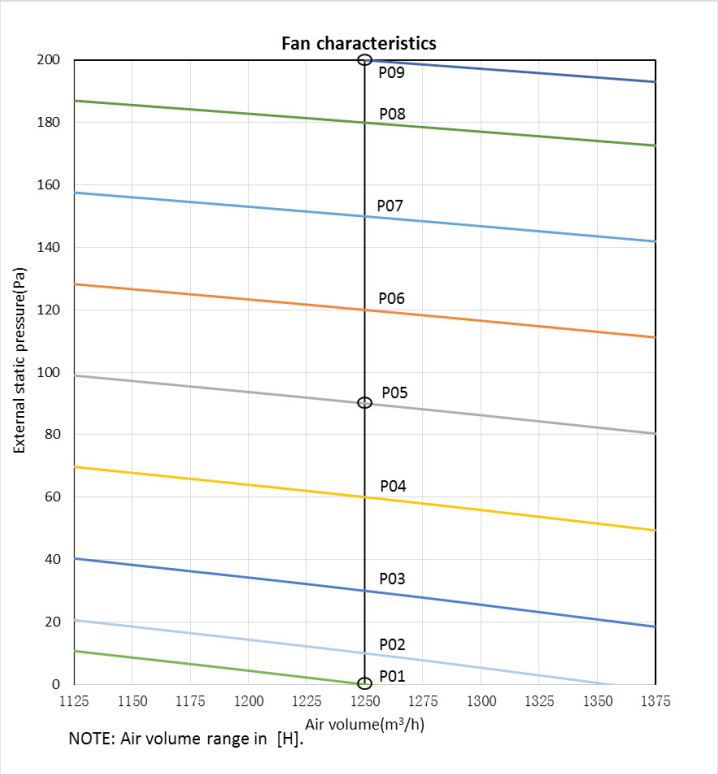
GMV-ND40PHS/D-T、GMV-ND45PHS/D-T、GMV-ND50PHS/D-T



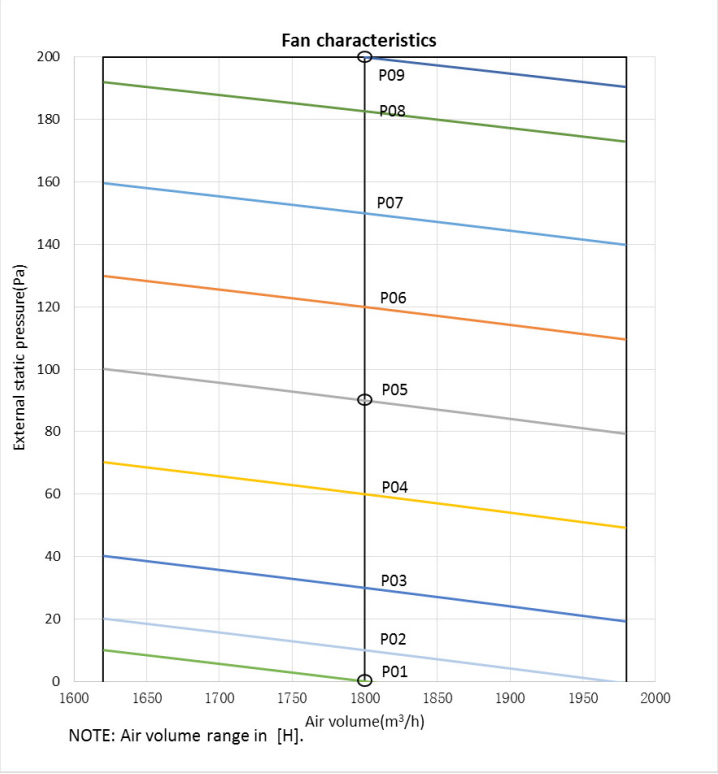
GMV-ND56PHS/D-T、GMV-ND63PHS/D-T



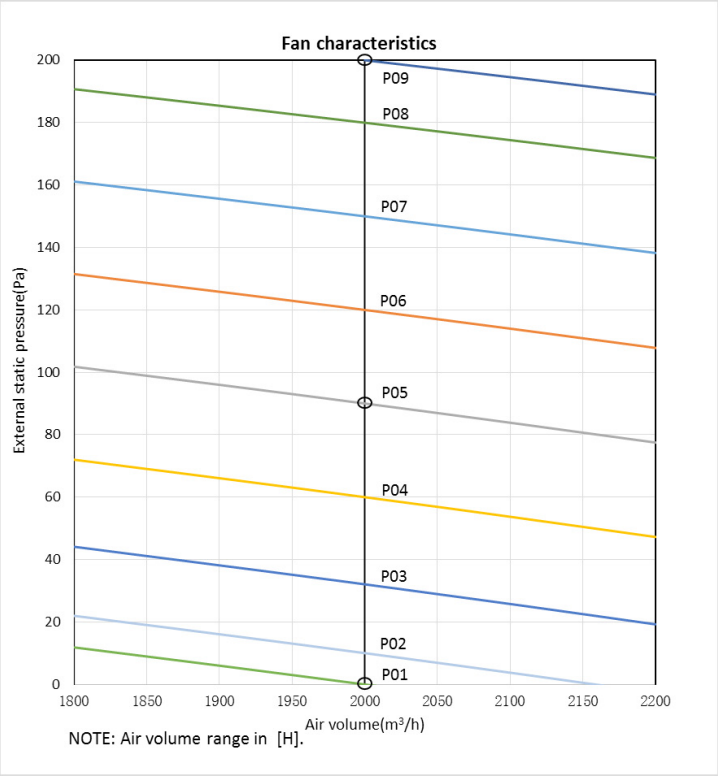
GMV-ND71PHS/D-T、GMV-ND80PHS/D-T



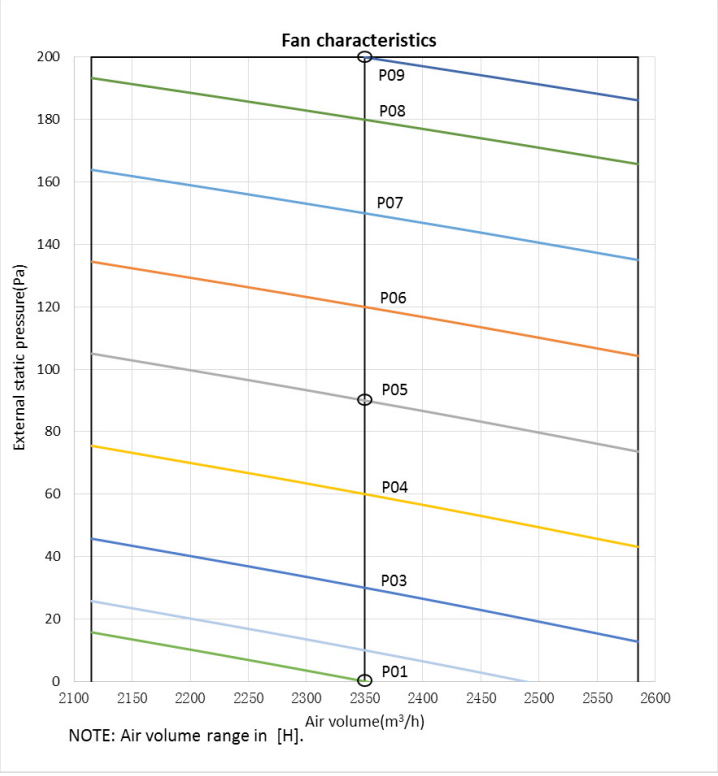
GMV-ND90PHS/D-T、GMV-ND100PHS/D-T



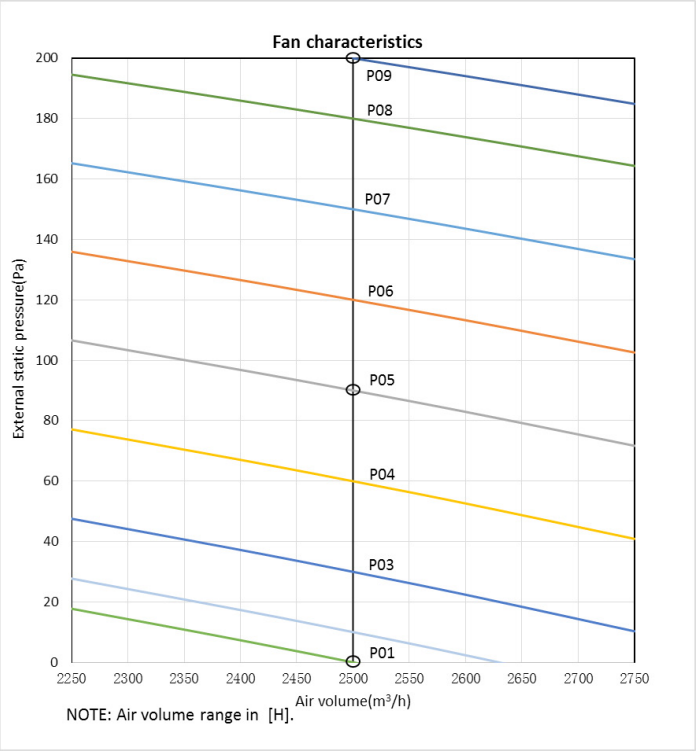
GMV-ND112PHS/D-T、GMV-ND125PHS/D-T



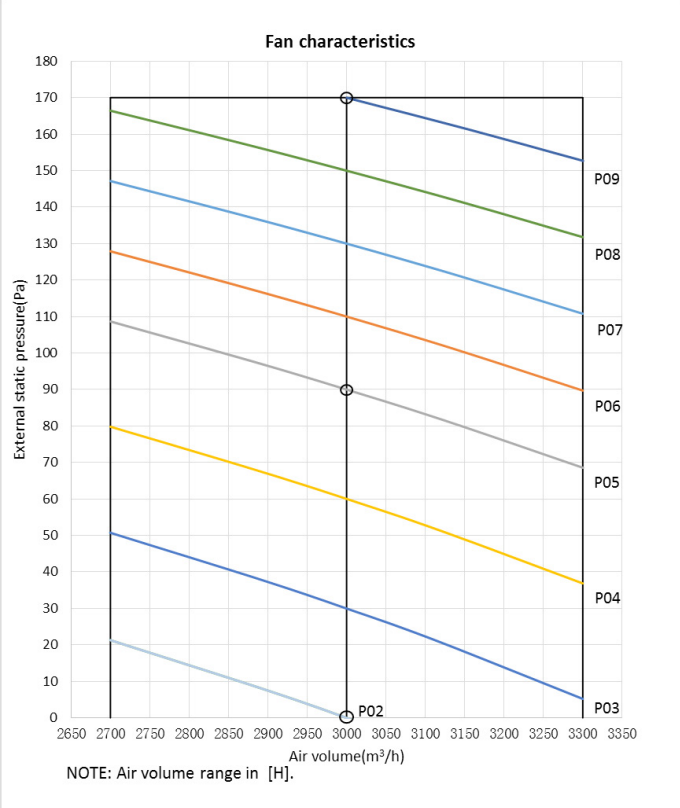
GMV-ND140PHS/D-T



GMV-ND160PHS/D-T



GMV-ND180PHS/D-T



7 UNIT INSTALLATION SPACE REQUIREMENTS

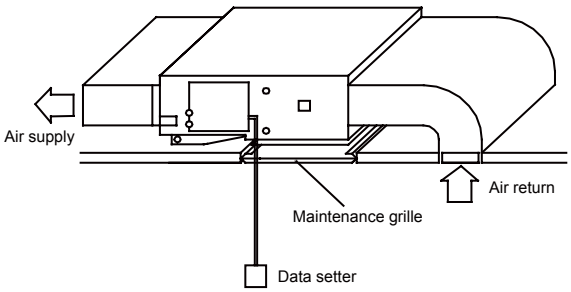
7.1 Precautions on the indoor unit design

The following aspects must be specially noted in consideration of the indoor unit location:

(1) The location should satisfy the optimal airflow organization for air conditioner in the actual project, and implement the most uniform distribution of temperature.

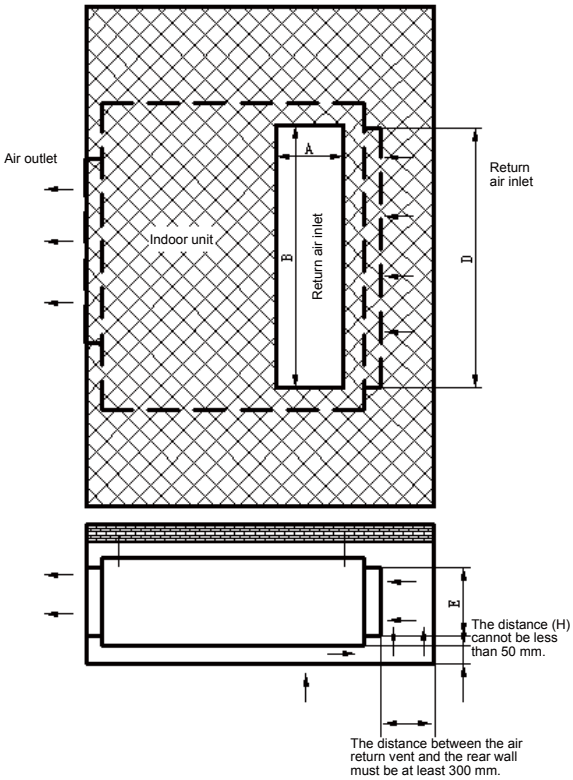
(2) Avoid mixed use of air ducts for air supply and air return in different air conditioning areas.

(3) When the indoor unit in the air supply mode of air duct is selected, it is preferred to adopt the rear air return mode for the unit to further efficiently reduce the air return noise of the unit.



(4) In locating, consider whether air return of the unit will be affected. For the indoor unit in the air supply mode of air duct, the air return frame must be more than 300 mm away from the back wall (rear air return mode) or other barriers.

(5) If the unit uses the rear air return mode and the ceiling uses the air return mode directly below the unit, the distance between the unit bottom and the ceiling must be over 50 mm. Meanwhile, the effective circulation area between the unit bottom and the ceiling cannot be smaller than the air return vent area of the unit. For example:



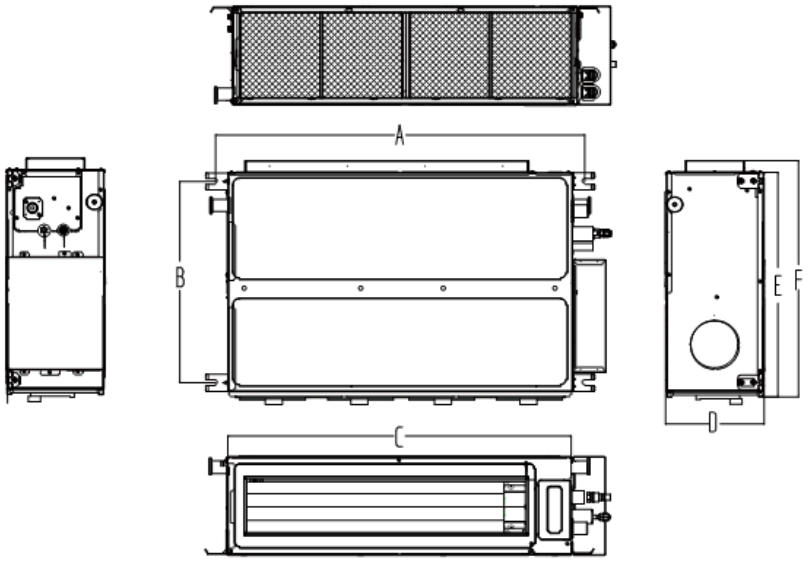
Air return area of the unit: S1 = D×E
Air return vent circumference of the ceiling: L = 2×(A+B)
Effective air return area of the ceiling: S2 = L×H
S2 cannot be smaller than S1. The distance H between the ceiling and the unit cannot be smaller than 50 mm.
(6) No barrier blocking air flow should exist at the air inlet or outlet of the indoor unit. The indoor unit should be installed at a position 2.3 m higher than the floor.
(7) For the indoor unit with the rated Cooling capacity greater than 5.6 Kw, an air supply duct should be additionally added, and the air duct and air outlet should be set properly to reduce noises.
(8) A sufficient maintenance space should be reserved in locating the unit.

7.2 Different installation space requirements for various of indoor units

7.2.1 Duct Unit Series

7.2.1.1 Dimensions

(1) General static pressure Duct Type
The figure below is applicable to the model whose Cooling capacity range is 1.8 kW to 7.1 kW.

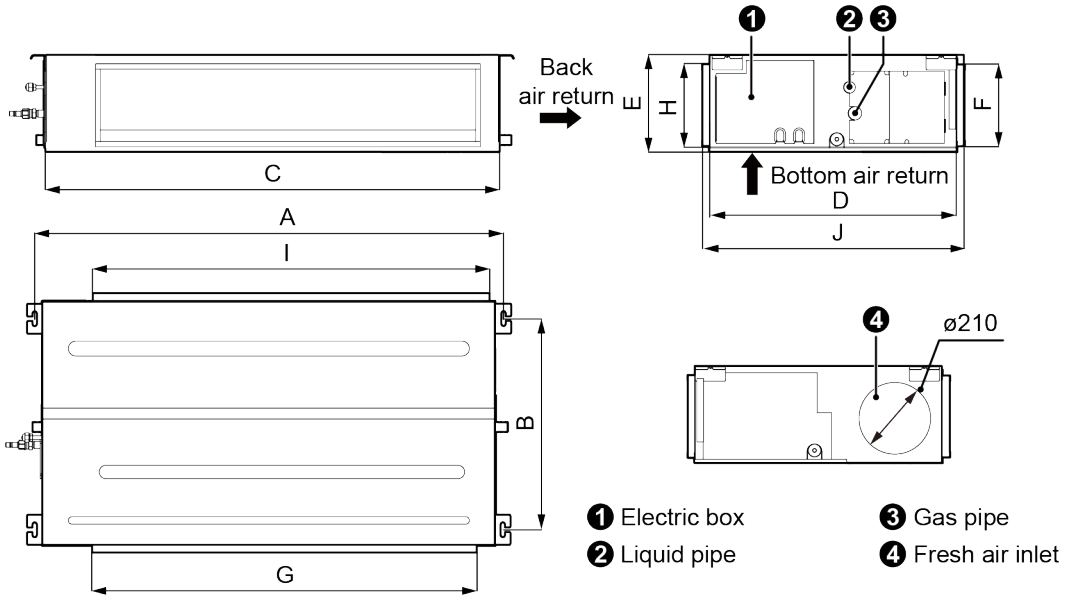


Unit: mm

Item / Model	A	B	C	D	E	F
GMV-ND18~36PLS/C-T	760	415	710	200	462	486
GMV-ND40~63PLS/C-T	1060	415	1010	200	462	486
GMV-ND71PLS/C-T	1360	415	1310	200	462	486

The figure below is applicable to the model whose Cooling capacity range is 8.0 kW to 14.0 kW.

Unit: mm

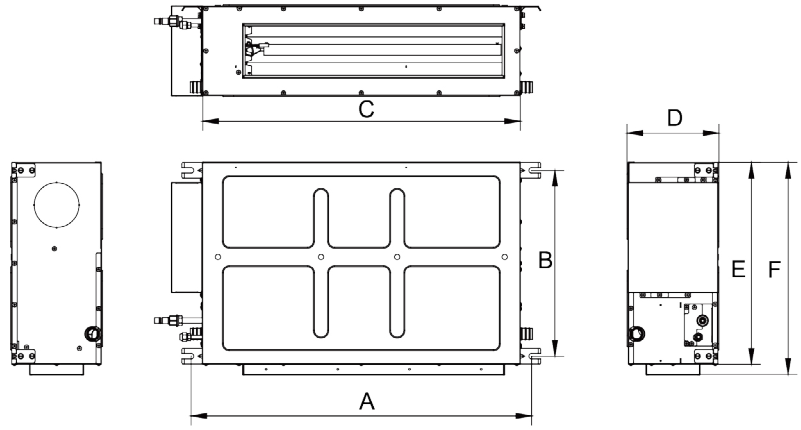


The table below lists the detailed dimensions.

Unit: mm

Item / Model	A	B	C	D	E	F	G	H	I	J
GMV-ND80PLS/C-T	1236	565	1200	655	260	222	1016	220	1050	695
GMV-ND90PLS/C-T GMV-ND100PLS/C-T GMV-ND112PLS/C-T GMV-ND125PLS/C-T GMV-ND140PLS/C-T	1379	565	1340	655	260	207	1153	220	1188	716

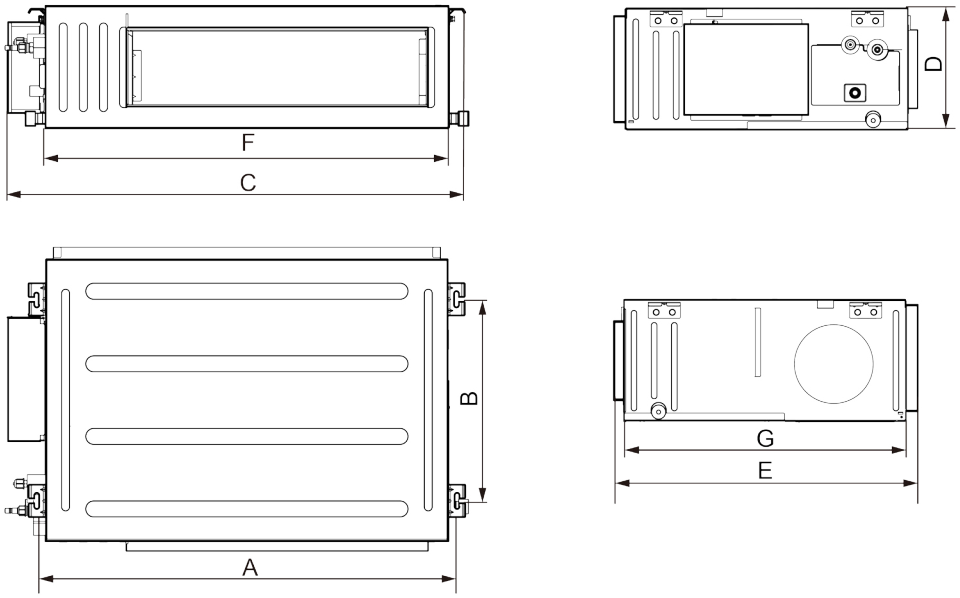
(2) Slim Duct Type series



Unit: mm

Item / Model	A	B	C	D	E	F
GMV-ND22~36PL/B-T	760	415	710	200	450	475
GMV-ND40~63PL/B-T	1060	415	1010	200	450	475
GMV-ND72PL/B-T	1360	415	1310	200	450	475

(3) Super High Static Pressure Duct Type Indoor Unit

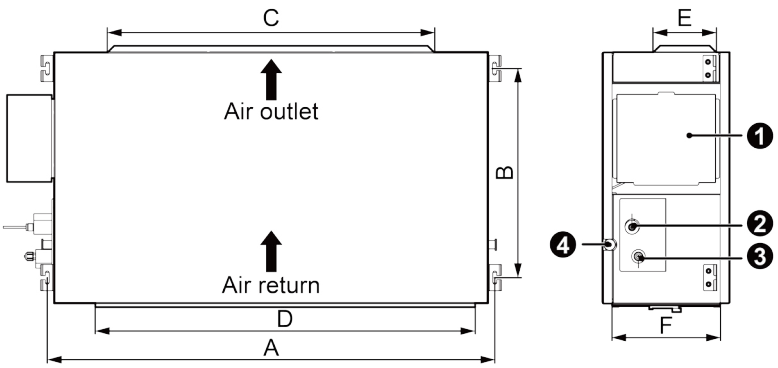


Unit: mm

Item / Model	A	B	C	D	E	F	G
GMV-ND22~50PHS/B-T	740	500	830	300	754	700	700
GMV-ND56~80PHS/B-T	1040	500	1130	300	754	1000	700
GMV-ND90~125PHS/B-T	1440	500	1530	300	754	1400	700
GMV-ND140~180PHS/B-T	1440	500	1580	300	754	1400	700

The figure below is applicable to the model whose Cooling capacity range is 22.4 kW to 28.0 kW.

❶ Electric box
❷ Gas pipe
❸ Liquid pipe
❹ Drainage pipe joint

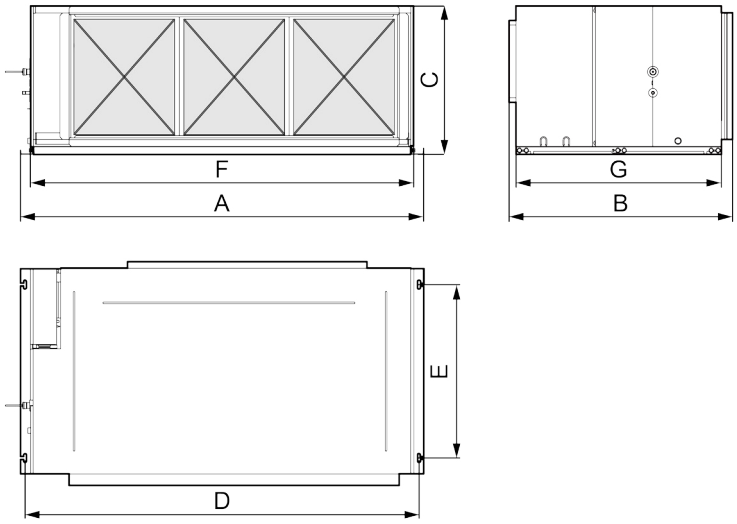


The table below lists the detailed dimensions.

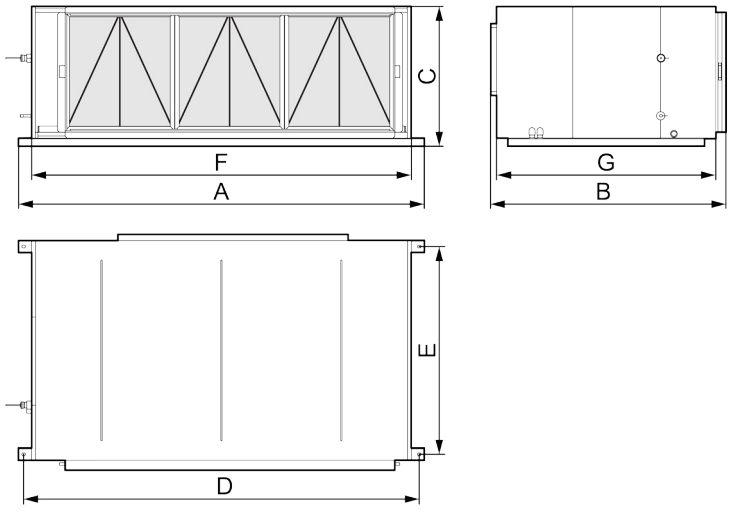
Unit: mm

Model	A	B	C	D	E	F
GMV-ND224PH/A-T	1353	632	992	1150	192	327
GMV-ND280PH/A-T	1563	707	992	1350	192	402

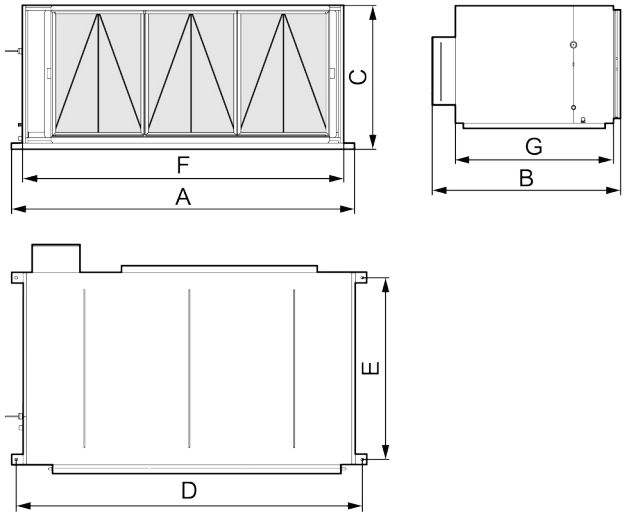
GMV-ND400PH/AR-X:



GMV-ND450PH/AR-X:



GMV-N560PH/AR-M:

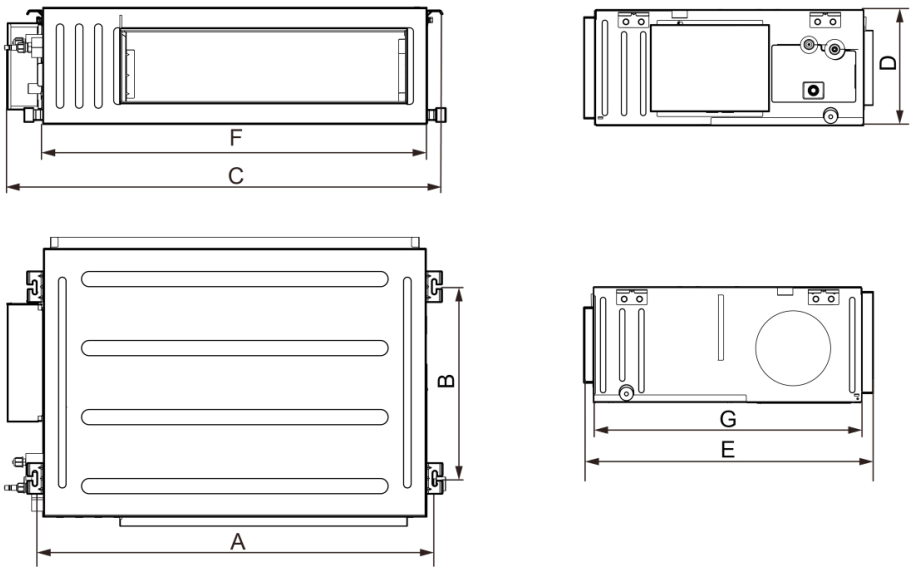


The table below lists the detailed dimensions.

Unit: mm

Model	A	B	C	D	E	F	G
GMV-ND400PH/AR-X	1770	982	650	1730	760	1680	900
GMV-ND450PH/AR-X	2030	1179	700	1980	1040	1900	1100
GMV-N560PH/AR-M	2030	1309	850	1980	1040	1900	1100

(4) High Static Pressure Duct Type Indoor Unit



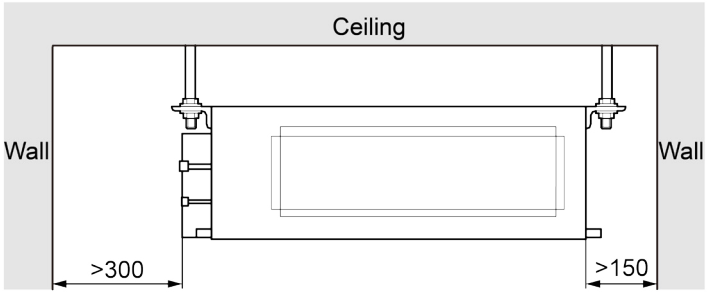
Unit: mm

Model	A	B	C	D	E	F	G
GMV-ND22~50PHS/D-T	740	500	830	300	754	700	700
GMV-ND56~80PHS/D-T	1040	500	1130	300	754	1000	700
GMV-ND90~160PHS/D-T	1440	500	1540	300	754	1400	700
GMV-ND180PHS/D-T	1440	500	1580	300	754	1400	700

7.2.1.2 Installation and Maintenance Spaces of Air Duct Type Units

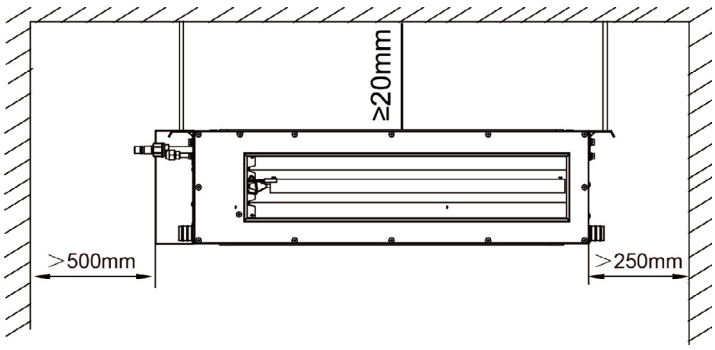
(1) General static pressure Duct Type GMV-ND**PLS/C-T Series

Unit: mm



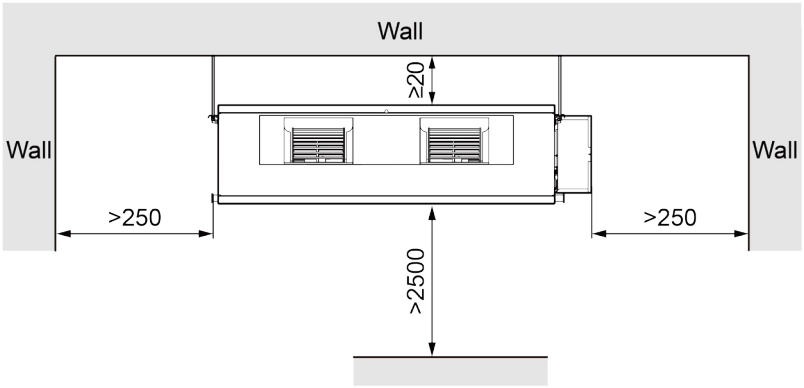
(2) Slim Duct Type GMV-ND**PL/B-T Series

Unit: mm



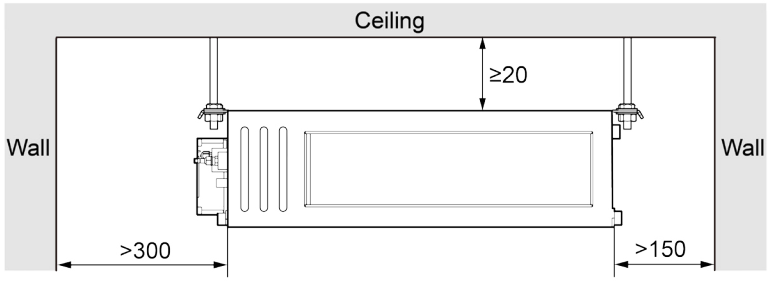
(3) Super High Static Pressure Duct Type Indoor Unit GMV-ND**PHS/B-T Series

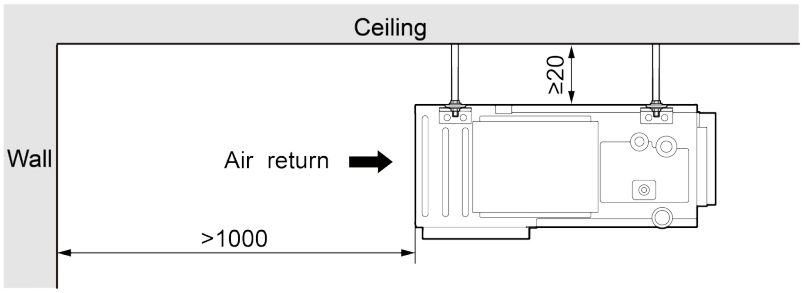
Unit: mm



(4) Super High Static Pressure Duct Type Indoor Unit GMV-ND**PH/AR-X and GMV-N**PH/AR-M Series

Unit: mm

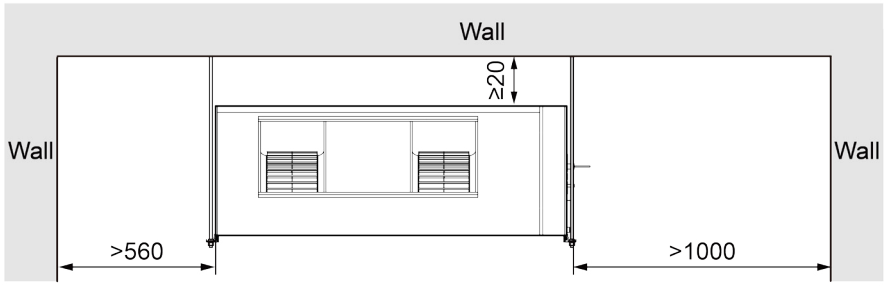


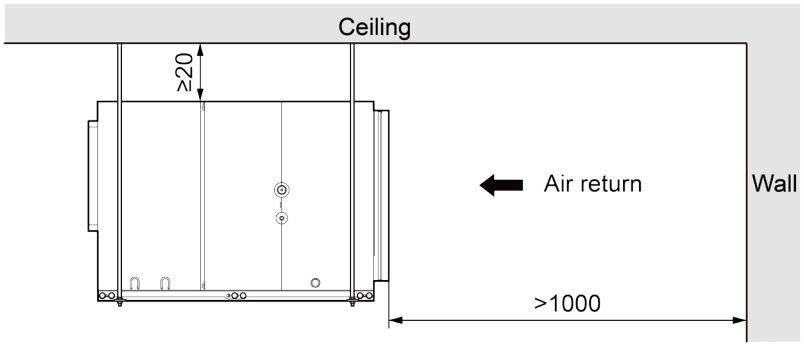


(5) Super High Static Pressure Duct Type Indoor Unit GMV-ND**PH/AR-X and GMV-N**PH/AR-M Series

GMV-ND400PH/AR-X

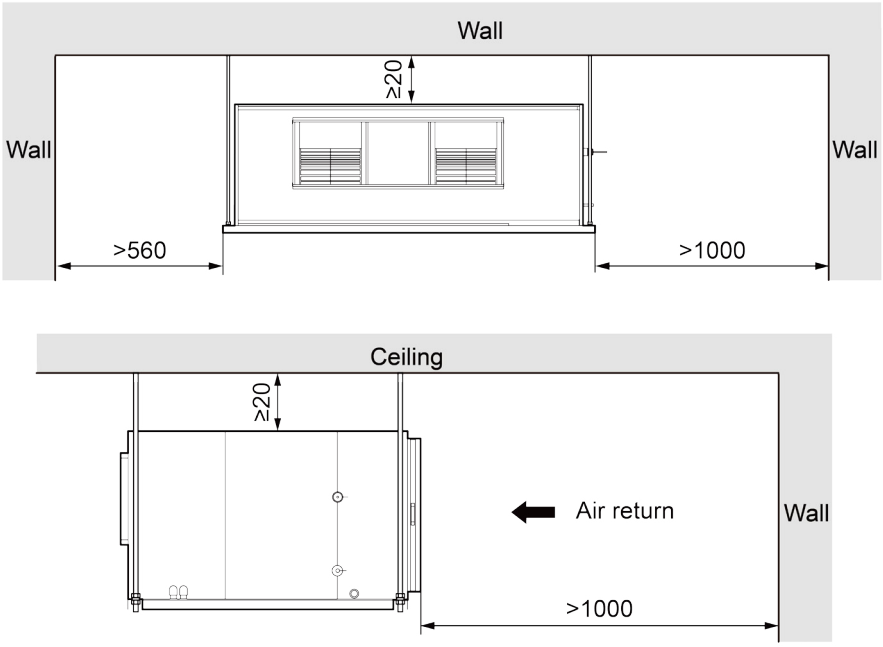
Unit: mm





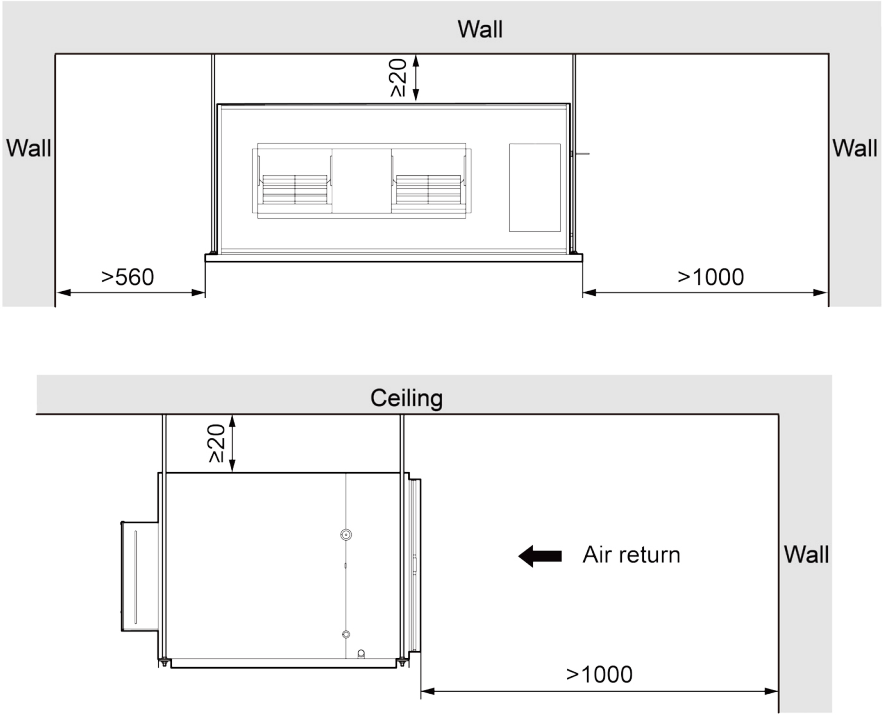
GMV-ND450PH/AR-X

Unit: mm



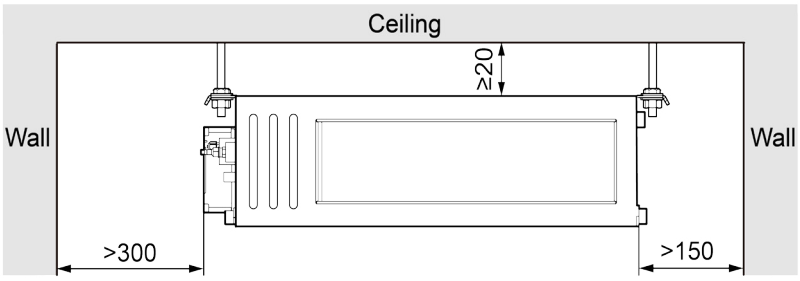
GMV-N560PH/AR-M

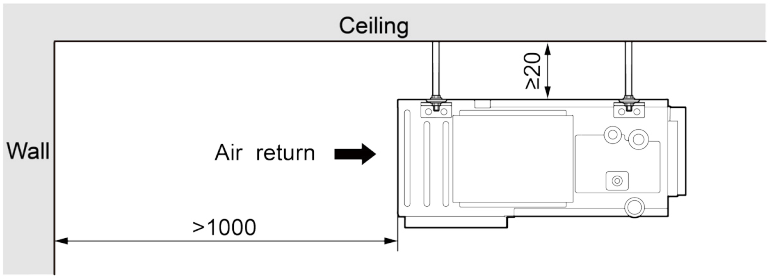
Unit: mm



(6) High Static Pressure Duct Type Indoor Unit GMV-ND**PHS/D-T Series

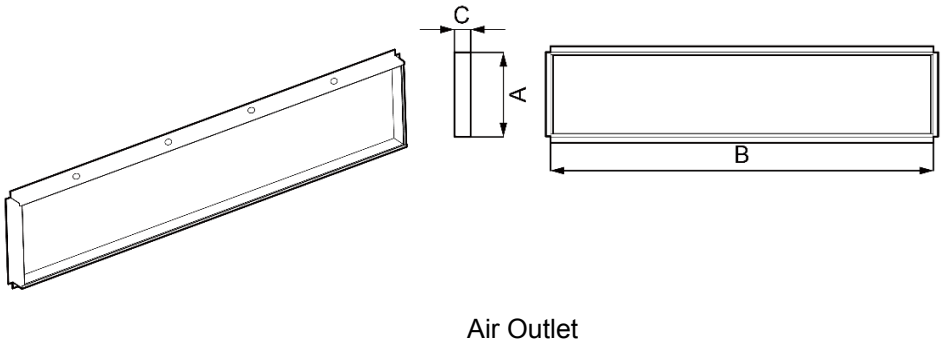
Unit: mm



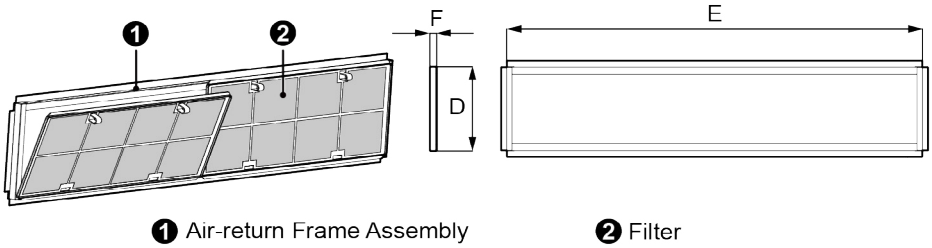


7.2.1.3 Shape and Size of Air Outlet and Air-return Opening

(1) General static pressure Duct Type Series



Air Outlet



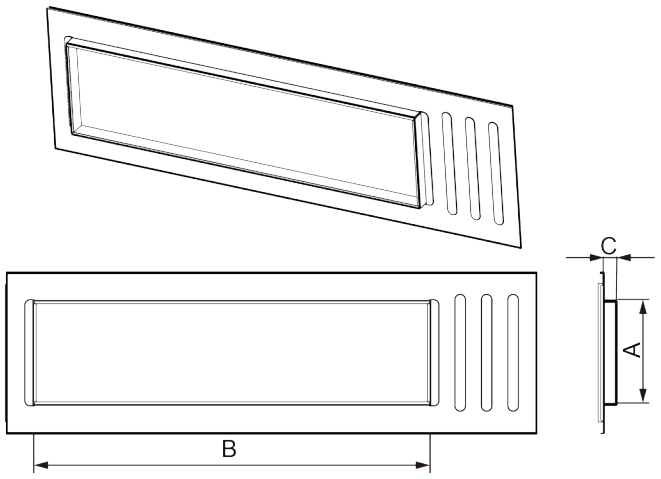
❶ Air-return Frame Assembly ❷ Filter

Air-return Opening

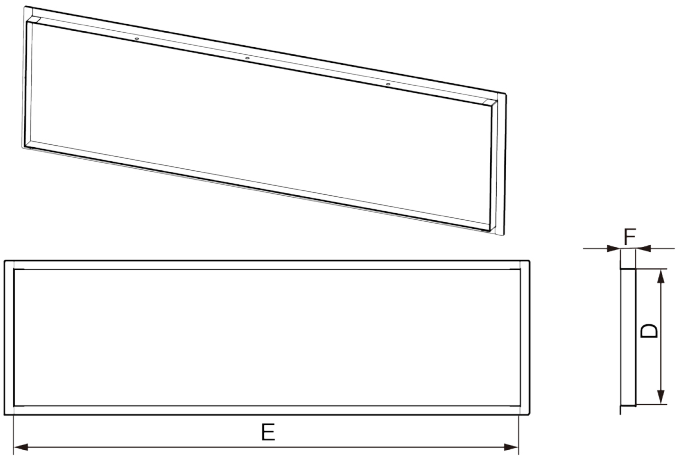
Unit: mm

Model	Size of Air Outlet			Size of Air-return Opening		
	A	B	C	D	E	F
GMV-ND80PLS/C-T	222	1016	21	1050	220	21
GMV-ND90PLS/C-T	207	1153	40	1188	220	22
GMV-ND100PLS/C-T						
GMV-ND112PLS/C-T						
GMV-ND125PLS/C-T						
GMV-ND140PLS/C-T						

(2) Super High Static Pressure Duct Type Indoor Unit



Air Outlet

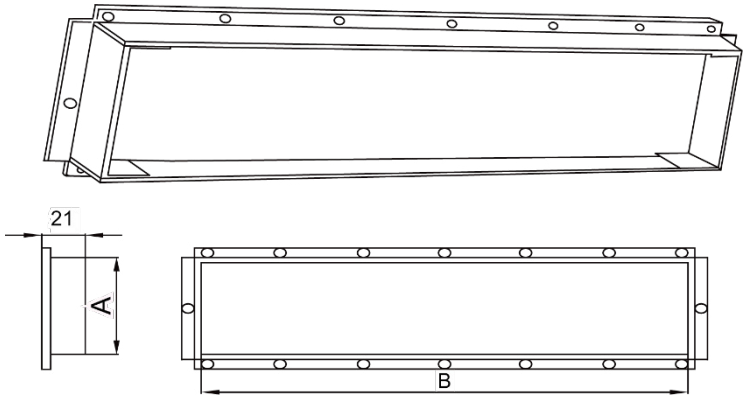


Air-return Opening

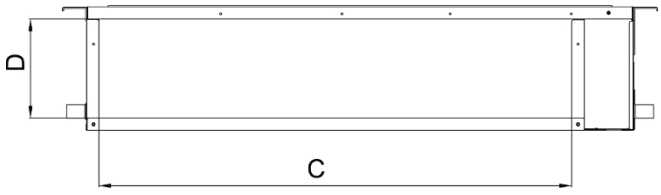
Unit: mm

Model	Size of Air Outlet			Size of Air-return Opening		
	A	B	C	D	E	F
GMV-ND22~50PHS/B-T	195	451	25	264	660	29
GMV-ND56~80PHS/B-T	195	751	25	264	960	29
GMV-ND90~180PHS/B-T	195	1151	25	264	1360	29

Unit: mm



Air Outlet

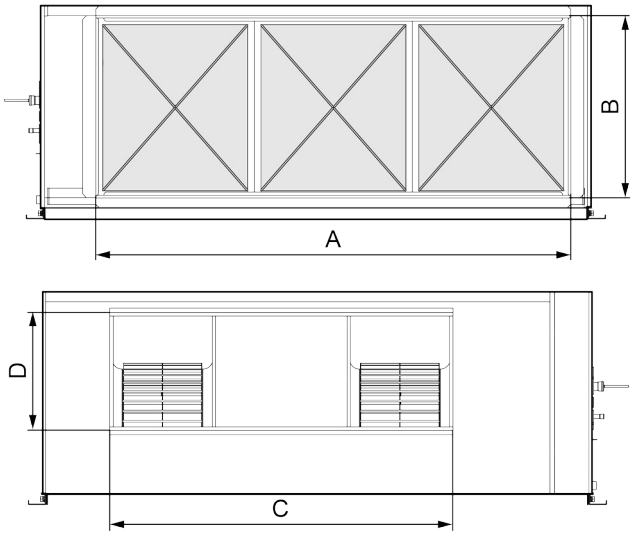


Air-return Opening

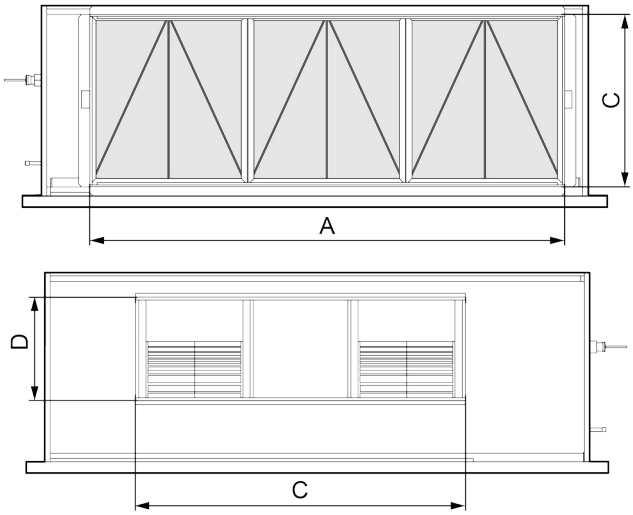
Unit: mm

Model	Size of Air Outlet		Size of Air-return Opening	
	A	B	C	D
GMV-ND224PH/A-T	192	992	1150	327
GMV-ND280PH/A-T	192	992	1350	402

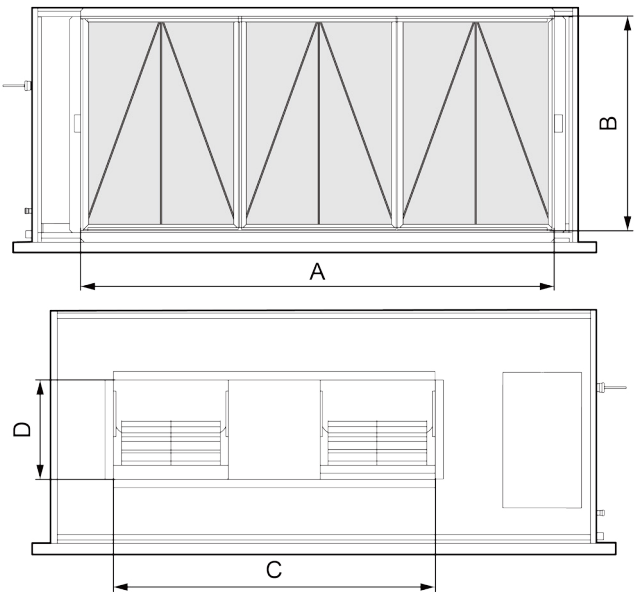
GMV-ND400PH/AR-X



GMV-ND450PH/AR-X



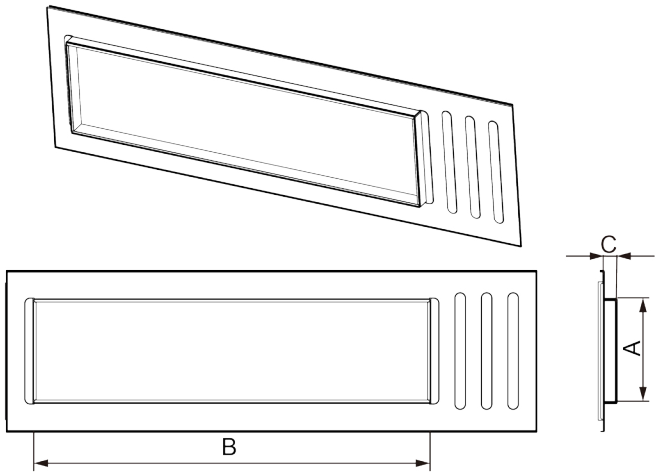
GMV-N560PH/AR-M



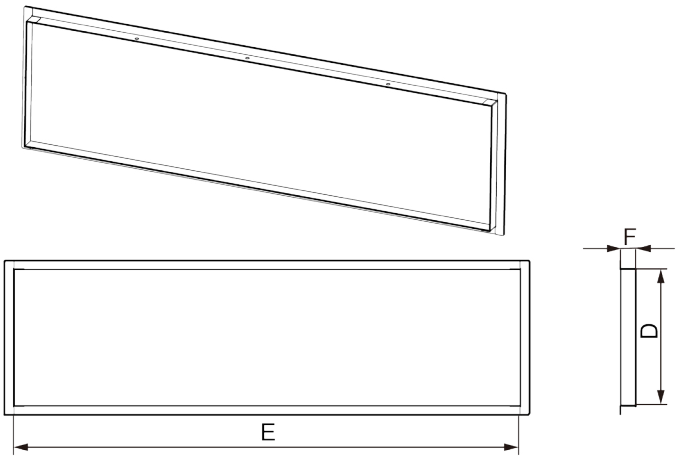
Unit: mm

Model	Size of Air-return Opening		Size of Air Outlet	
	A	B	C	D
GMV-ND400PH/AR-X	1450	557	1050	359
GMV-ND450PH/AR-X	1650	602	1155	359
GMV-N560PH/AR-M	1650	755	1120	347

(3) High Static Pressure Duct Type Indoor Unit



Air Outlet



Air-return Opening

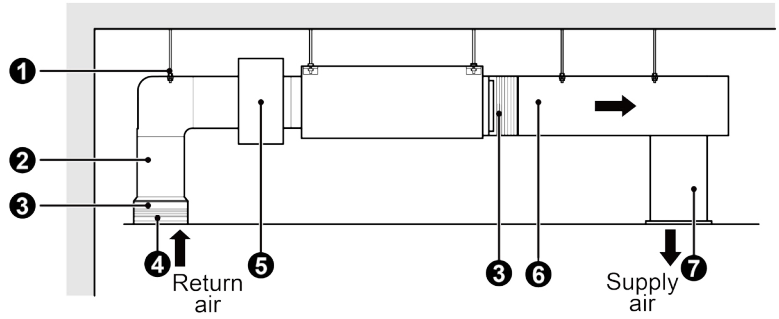
Unit: mm

Model	Size of Air Outlet			Size of Air-return Opening		
	A	B	C	D	E	F
GMV-ND22~50PHS/D-T	195	451	25	264	660	29
GMV-ND56~80PHS/D-T	195	751	25	264	960	29
GMV-ND90~180PHS/D-T	195	1151	25	264	1360	29

7.2.1.4 Installing Air Supply Ducts

(1) Installing the rectangular air duct

❶ Hanger rod
❷ Return air duct
❸ Canvas duct
❹ Return air inlet
❺ Static pressure box
❻ Main supply air duct
❼ Supply air outlet



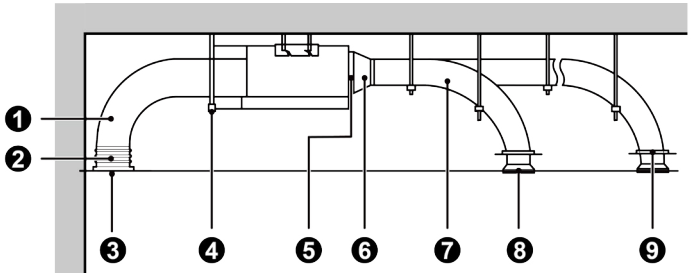
The above figure indicates only installation of the rear air return vent. The lower air return vent can also be used according to the actual installation requirement, and the installation method is similar to the method of installing the rear air return vent. The air supply duct is a rectangular air duct, which is connected to the air outlet of indoor unit. At least one of all the air supply outlets should be kept open.

The air supply outlet and air return vent joint, and the air return vent and air supply outlet joint are connected using canvas (select canvas with thermal insulation effect). When there are static pressure and low noise requirements, a plenum box is connected between the air supply outlet and the air supply duct. The air outlet dimension of the plenum box is consistent with the air supply outlet dimension. The plenum box is connected to the air supply outlet using canvas.

If the rear air return mode is used, a space for installing the return duct is reserved in the suspended air duct indoor unit. The air return vent dimension should be as large as possible, and the air speed should be as low as possible.

(2) Installing the circular air duct

❶ Return air duct
❷ Canvas duct
❸ Return air blinds
❹ Hanger rod
❺ Supply air outlet
❻ Transition pipe
❼ Supply air duct
❽ Diffuser
❾ Diffuser connector



Notes:

① The maximum air duct length refers to the total length of the air supply duct of the farthest air supply outlet plus the total length of the return duct of the corresponding farthest return air inlet.

② To connect the unit with auxiliary electric heating to a circular air duct, the straight length of the transition air duct should be at least 200 mm.

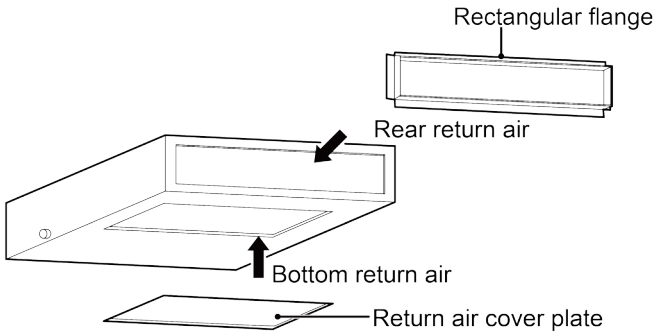
◆ Installation procedure of the circular air duct

1) Pre-install the circular air outlet at the transition air duct, and use self tapping screws to fasten it.
2) Cover the air outlet of the unit with the transition air duct, and use rivets to connect them.
3) Cover the circular air outlet with the duct outlet, and use a band to tie them tightly. Then, the circular air duct is connected to the unit. Other operations are omitted here.

7.2.1.5 Installing Air Return Pipe

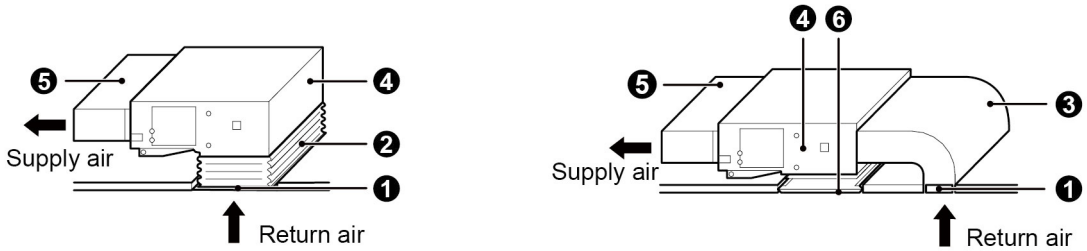
(1) The unit is the rear air return mode before delivery, and the air return cover is installed at the lower part, as shown below.

(2) If lower air return is required, exchange the position of the square flange with that of the air return cover.



(3) Use rivets to connect the return duct to the air return vent of the indoor unit, and connect the other end to the air return vent. To freely adjust the height, prepare a section of canvas air duct, use 8# iron wire to reinforce the duct, and fold it.

Select lower air return or rear air return mode according to the installation and maintenance spaces, and install the return duct as shown below.



❶ Return air inlet (with filter)
❷ Canvas duct
❸ Return air duct
❹ Indoor unit
❺ Supply air duct
❻ Grille

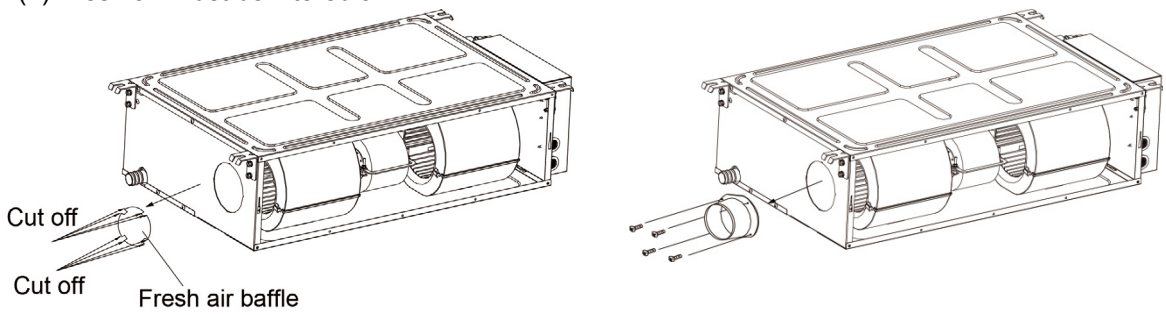
Notes:

① Since the lower air return mode generates more noises than the rear air return mode does, the lower air return mode is not recommended.

② Usually the lower air return mode is adopted for the site with a small installation space.

7.2.1.6 Installing Fresh Air Duct

(1) To connect a fresh air duct, first cut off the fresh air baffle, as shown in the left part of the following figure. If you do not want to use the fresh air duct, use sponge to block the fresh air baffle gap.
(2) Install the circular flange to connect to the fresh air duct, as shown in the right part of the following figure.
(3) Both the air duct and the circular flange should be well sealed and insulated.
(4) Fresh air must be filtered air.

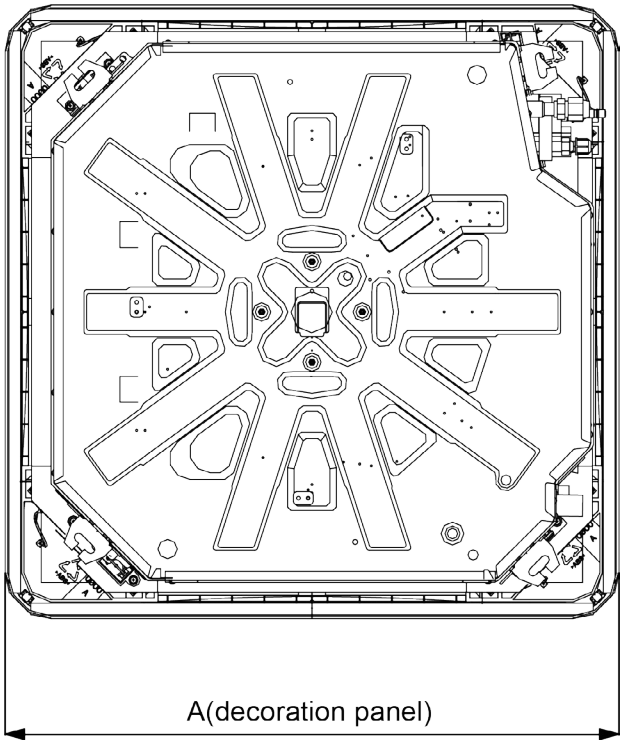


Notes:

① Both the air supply duct and return duct should be provided with an insulating layer to prevent heat loss and condensation.
② All the air supply ducts and return ducts should be fastened on the floor precast slab using iron supporters, and the air duct joints should be sealed properly using glue to prevent air leakage.
③ The air duct design and construction must comply with the relevant engineering specification requirements of the state.
④ The recommended distance between the return duct edge and the wall is over 150 mm, and a filter should be installed at the air return vent.
⑤ Measures for noise reduction and shock absorption should be taken into account in air duct design and construction.

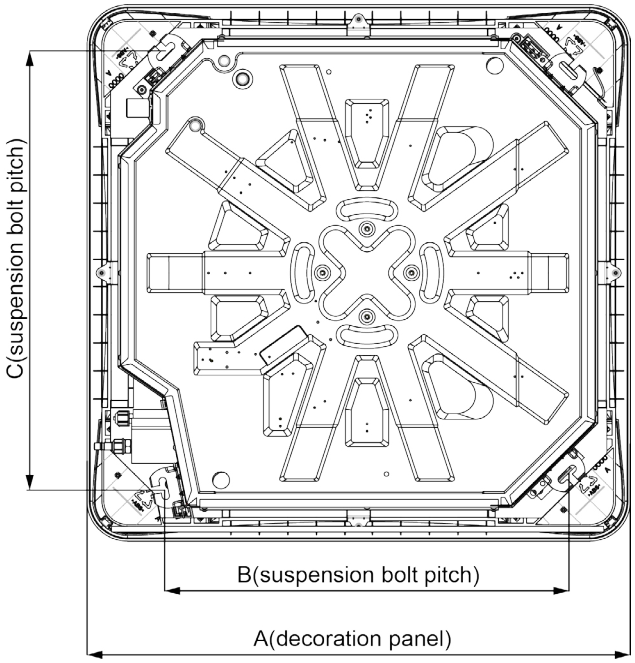
7.2.2 Four-way Cassette Type

Requirements for external dimensions and installation and maintenance spaces.



Unit: mm

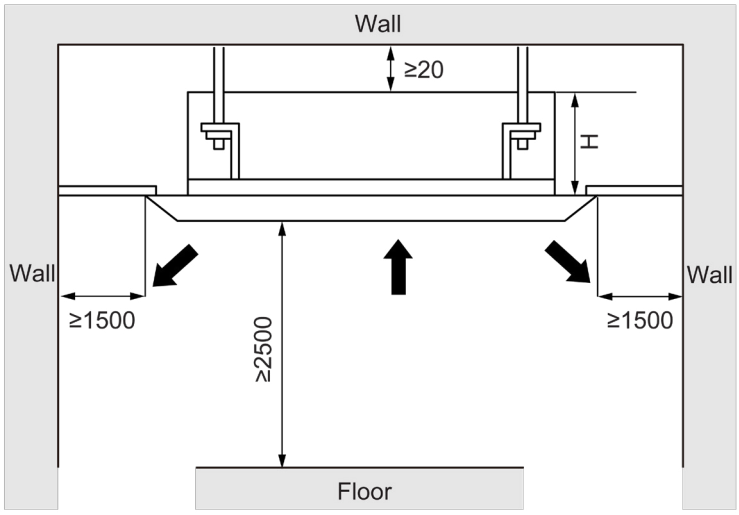
Model	A
GMV-ND28~140T/A-T	950



Unit: mm

Model	A	B	C
GMV-ND160T/A-T	1040	790	840

Unit: mm



Unit: mm

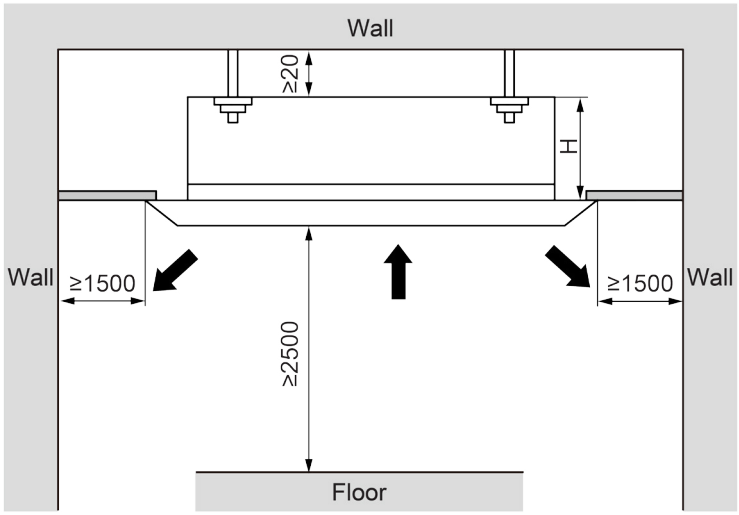
Model	H
GMV-ND28~50T/A-T	220
GMV-ND56~80T/A-T	270
GMV-ND90~140T/A-T	350
GMV-ND160T/A-T	310

7.2.3 One-way Cassette Type

Requirements for external dimensions and installation and maintenance spaces.

External Dimensions

Unit: mm

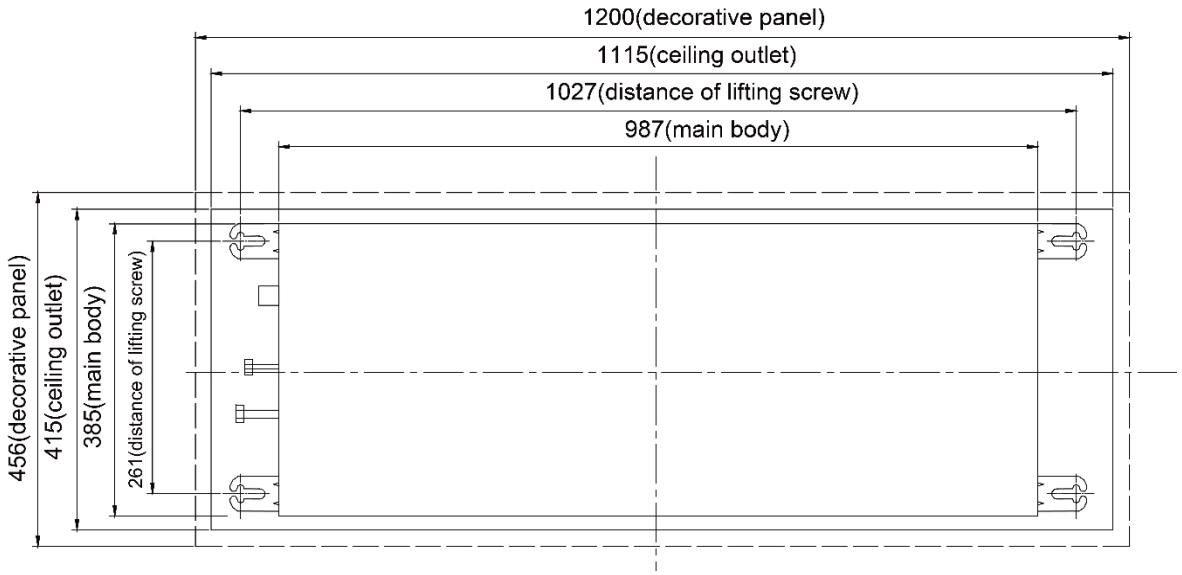


Models:	H(mm)
GMV-ND22~56TD/A-T	207
GMV-ND63~80TD/B-T	200

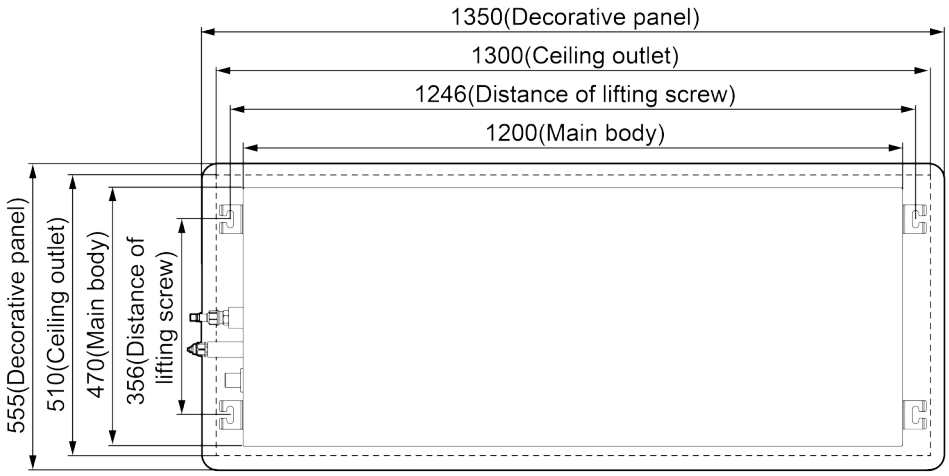
Installation and Maintenance Spaces

Unit: mm

GMV-ND22~56TD/A-T：



GMV-ND63~80TD/B-T：

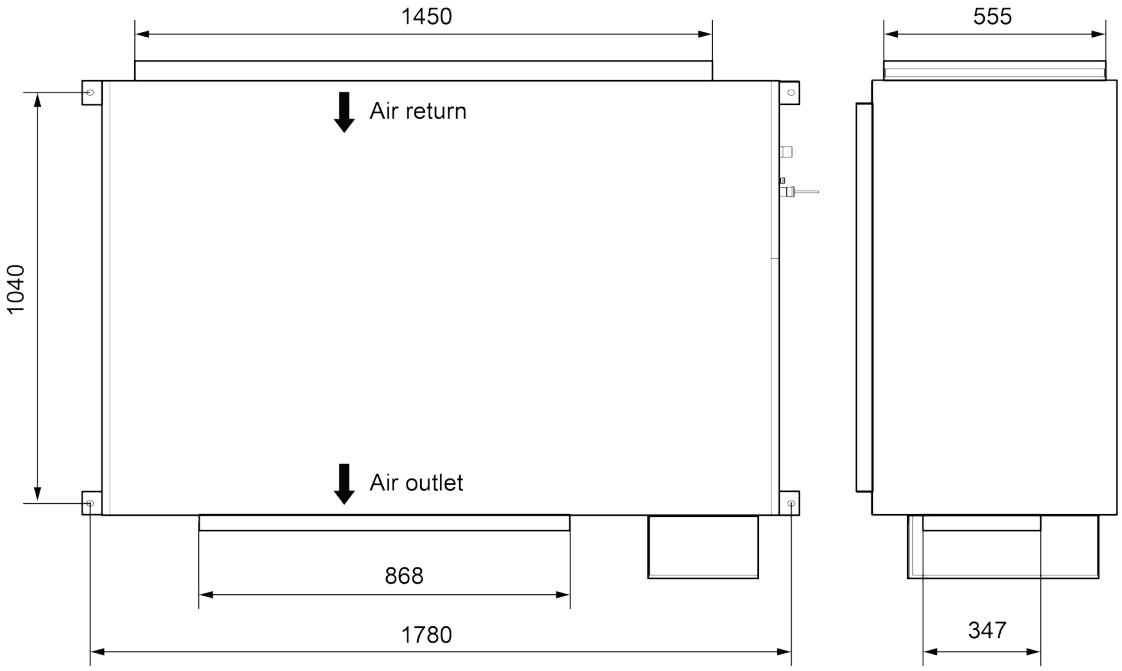


7.2.4 Fresh Air Processing Unit

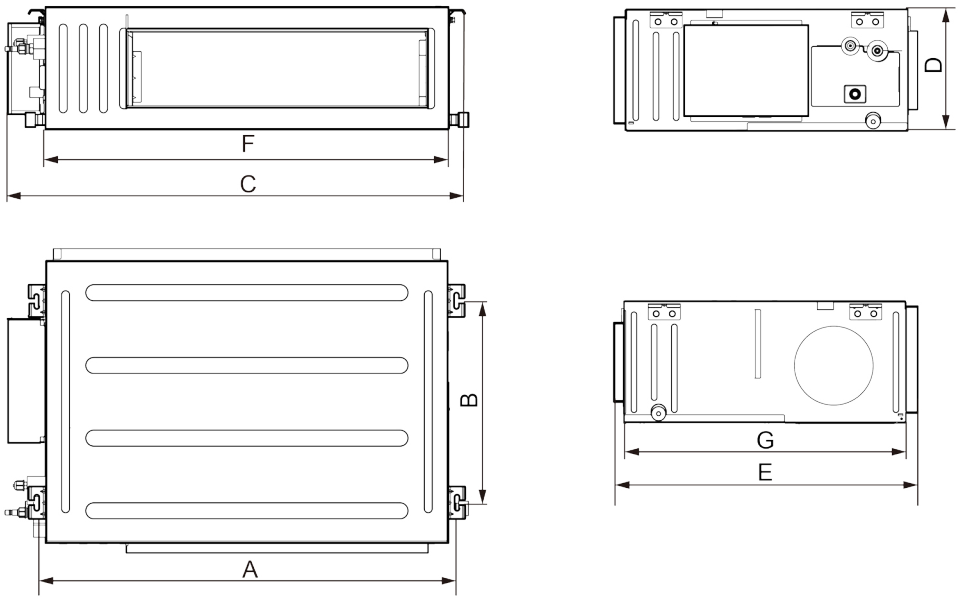
External Dimensions

GMV-NX450P/A (X4.0)-M

Unit: mm



GMV-NDX125P/A-T, GMV-NDX140P/A-T

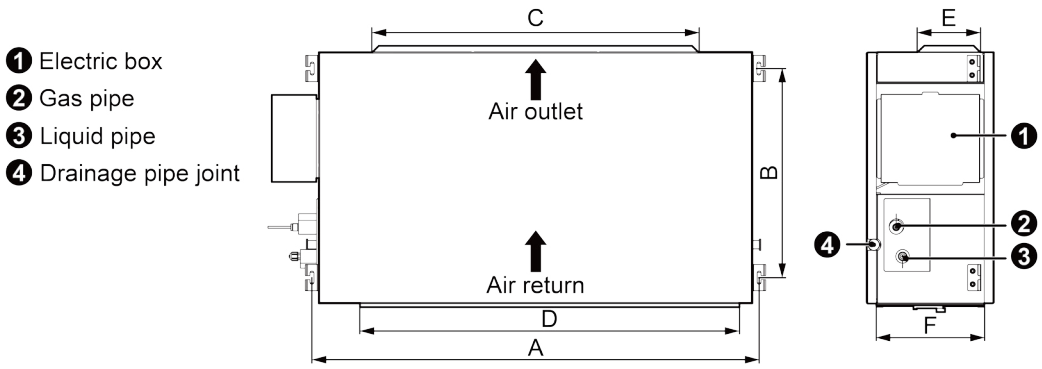


The table below lists the detailed dimensions.

Unit: mm

Model	A	B	C	D	E	F	G
GMV-NDX125P/A-T	1440	500	1530	300	754	1400	700
GMV-NDX140P/A-T	1440	500	1530	300	754	1400	700

GMV-NDX224P/A-T, GMV-NDX250P/A-T, GMV-NDX280P/A-T



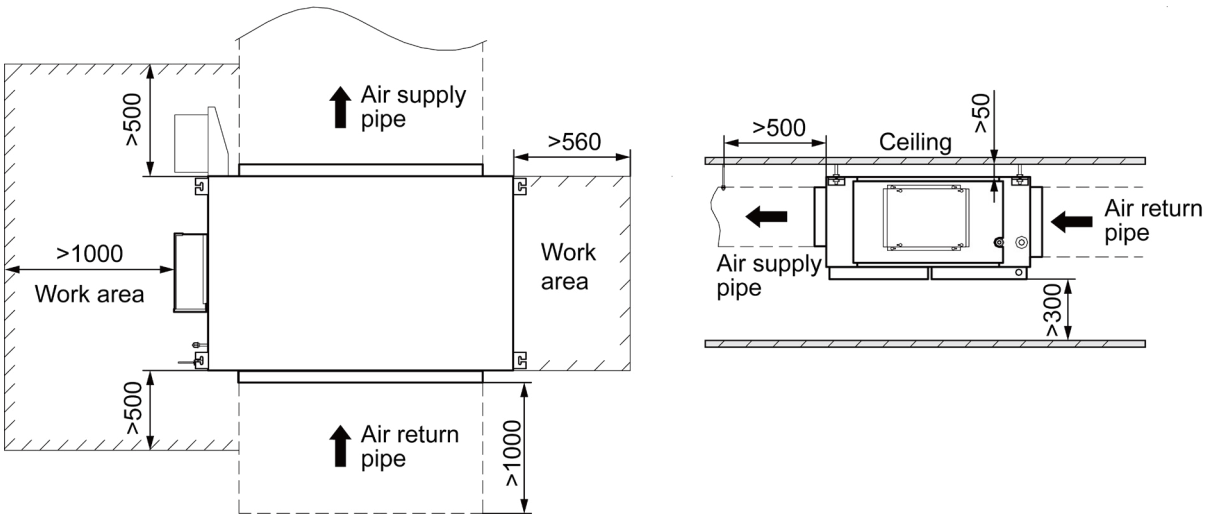
The table below lists the detailed dimensions.

Unit: mm

Model	A	B	C	D	E	F
GMV-NDX224P/A-T	1353	632	992	1150	192	327
GMV-NDX250P/A-T	1353	632	992	1150	192	327
GMV-NDX280P/A-T	1353	632	992	1150	192	327

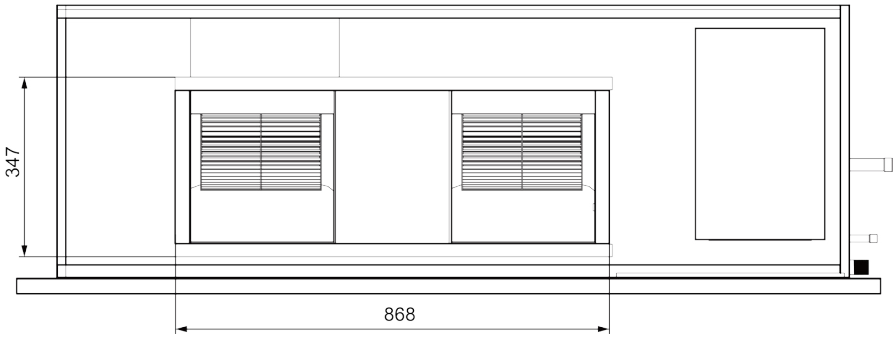
Installation and Maintenance Spaces

Unit: mm



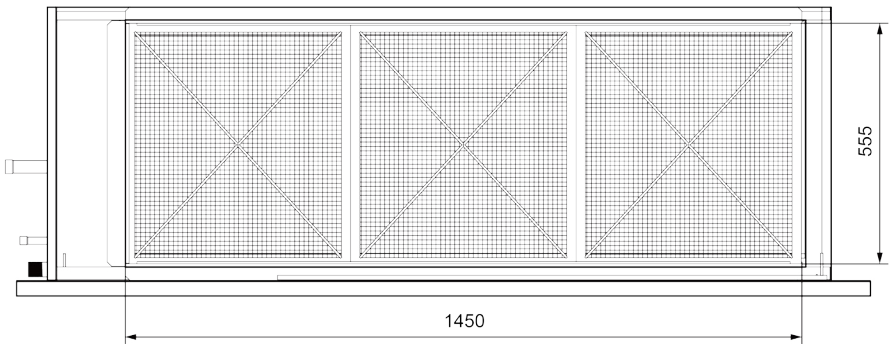
Shape and Size of Air-outlet and Air-return Opening
GMV-NX450P/A (X4.0)-M

Unit: mm



air-outlet opening

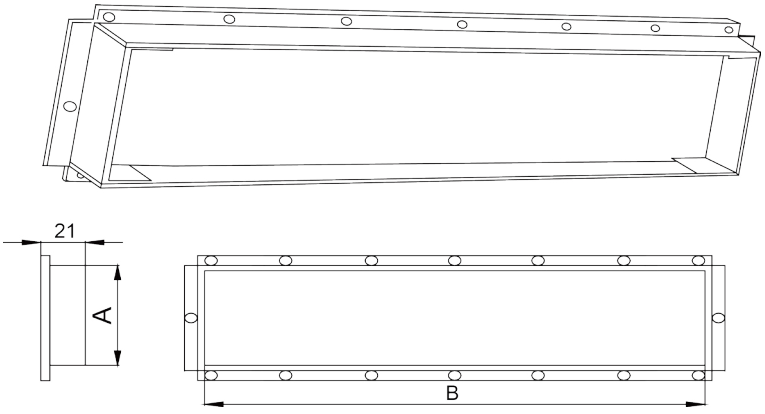
Unit: mm



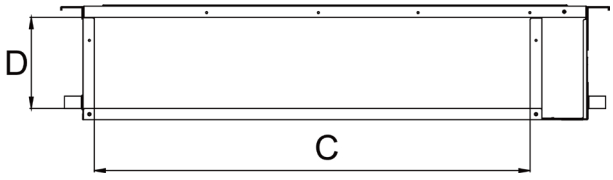
air-return opening

GMV-NDX125P/A-T,GMV-NDX140P/A-T,GMV-NDX224P/A-T,GMV-NDX250P/A-T,GMV-NDX280P/A-T

Unit: mm



Air Outlet



Air-Return Opening

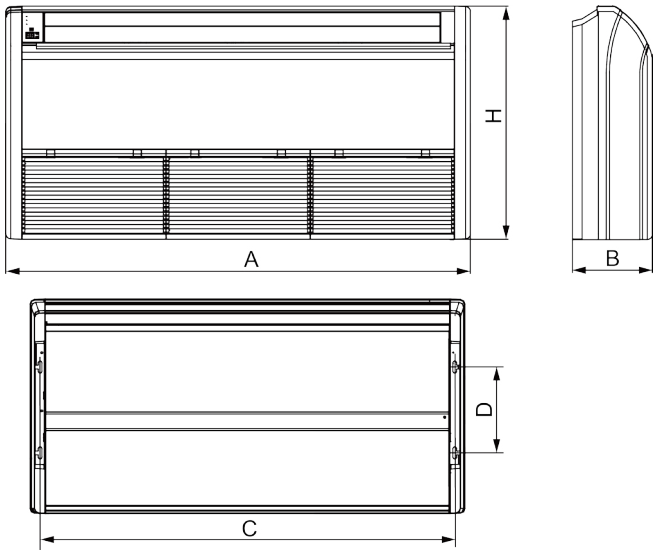
Unit: mm

Model	Size of Air Outlet		Size of Air –returen Opening	
	A	B	C	D
GMV-NDX125P/A-T	197	1151	1362	264
GMV-NDX140P/A-T	197	1151	1362	264
GMV-NDX224P/A-T	192	992	1150	327
GMV-NDX250P/A-T	192	992	1150	327
GMV-NDX280P/A-T	192	992	1150	327

7.2.5 Floor Ceiling Type

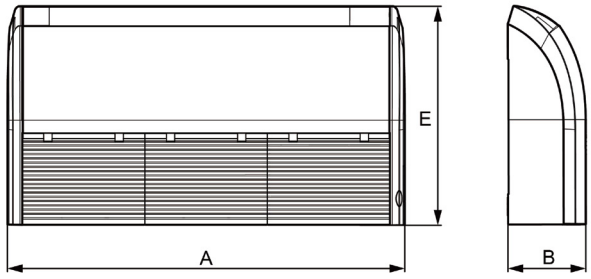
(1) External Dimensions

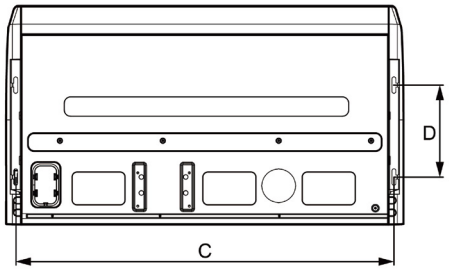
The table below lists the detailed dimensions.



Unit: mm

Model	A	B	C	D	H
GMV-ND28ZD/A-T GMV-ND36ZD/A-T GMV-ND50ZD/A-T GMV-ND56ZD/A-T	1220	225	1158	280	700
GMV-ND63ZD/A-T GMV-ND71ZD/A-T GMV-ND90ZD/A-T	1420	245	1354	280	700
GMV-ND112ZD/A-T GMV-ND125ZD/A-T GMV-ND140ZD/A-T GMV-ND160ZD/A-T	1700	245	1634	280	700





Unit: mm

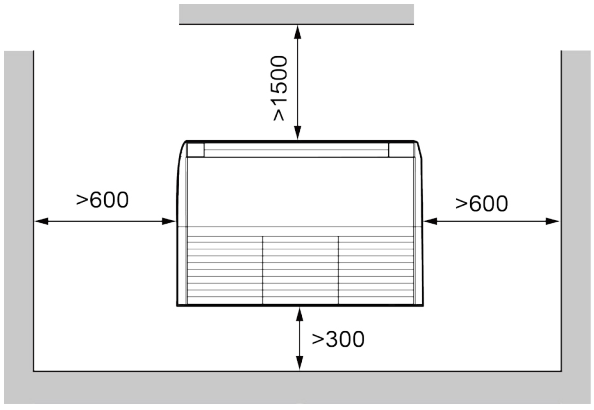
Model	A	B	C	D	E
GMV-ND28ZD/B-T	870	235	812	280	665
GMV-ND36ZD/B-T GMV-ND50ZD/B-T					
GMV-ND56ZD/B-T					
GMV-ND63ZD/B-T GMV-ND71ZD/B-T GMV-ND90ZD/B-T	1200	235	1142	280	665
GMV-ND112ZD/B-T GMV-ND125ZD/B-T GMV-ND140ZD/B-T	1570	235	1512	280	665
GMV-ND160ZD/B-T					

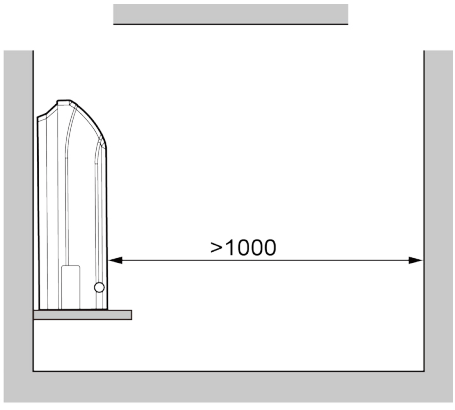
(2) Installation and Maintenance Spaces

GMV-ND**ZD/A-T：

Floor type

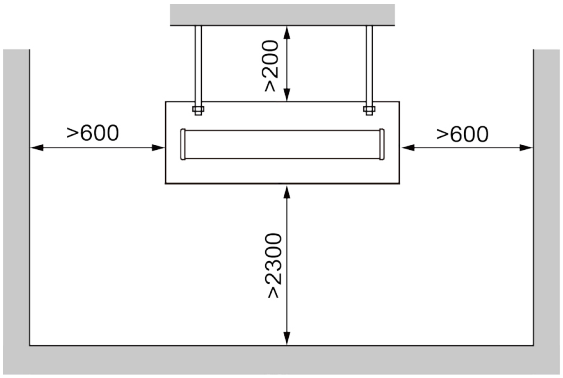
Unit: mm

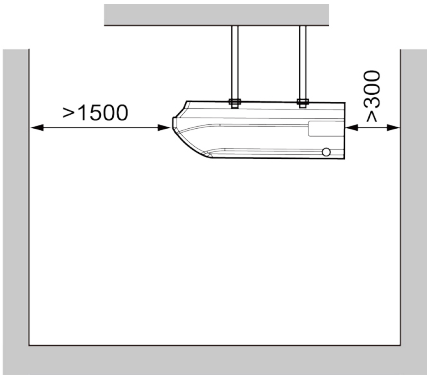




Ceiling type

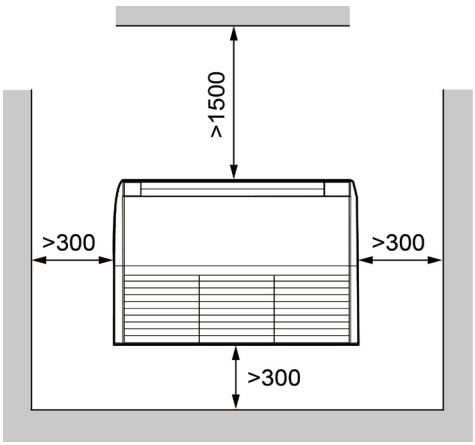
Unit: mm

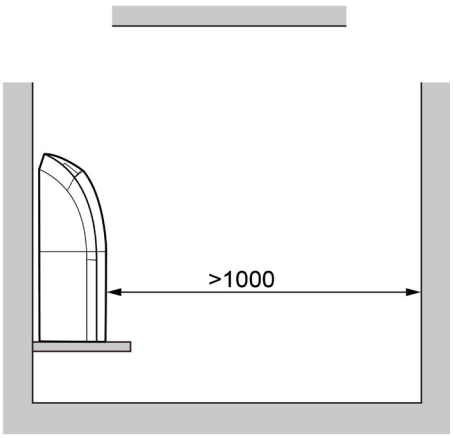




GMV-ND**ZD/B-T：
Floor type

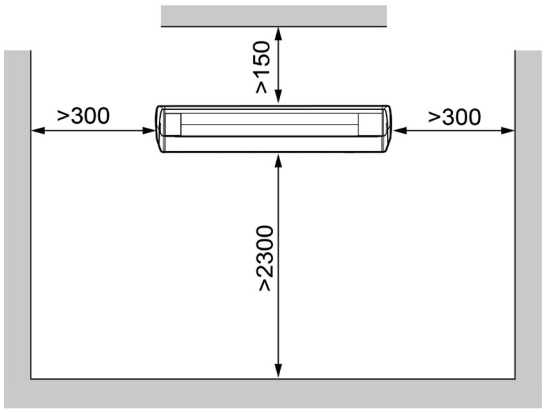
Unit: mm

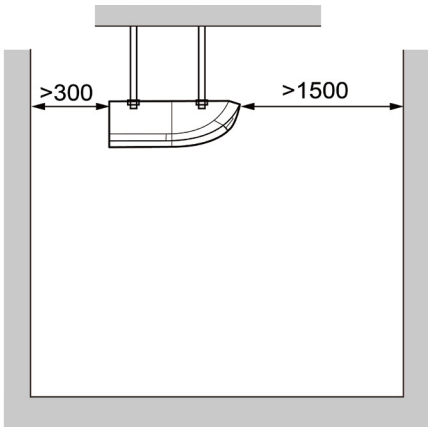




Ceiling type

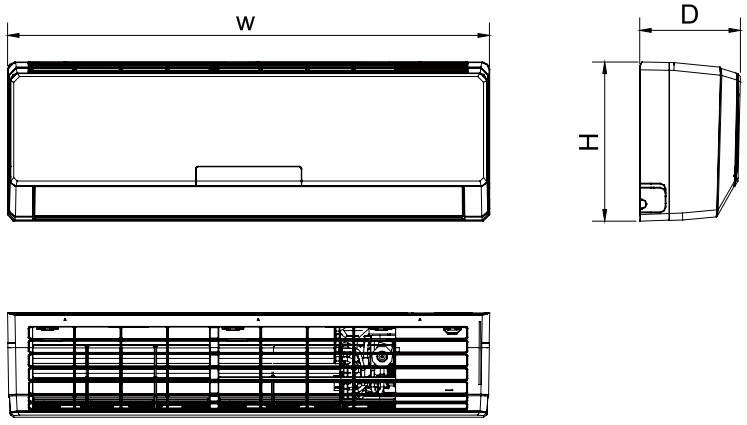
Unit: mm





7.2.6 Wall-Mounted Type

External Dimensions



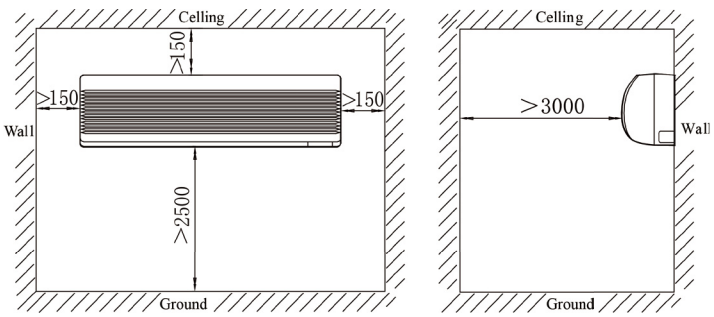
The table below lists the detailed dimensions.

Unit: mm

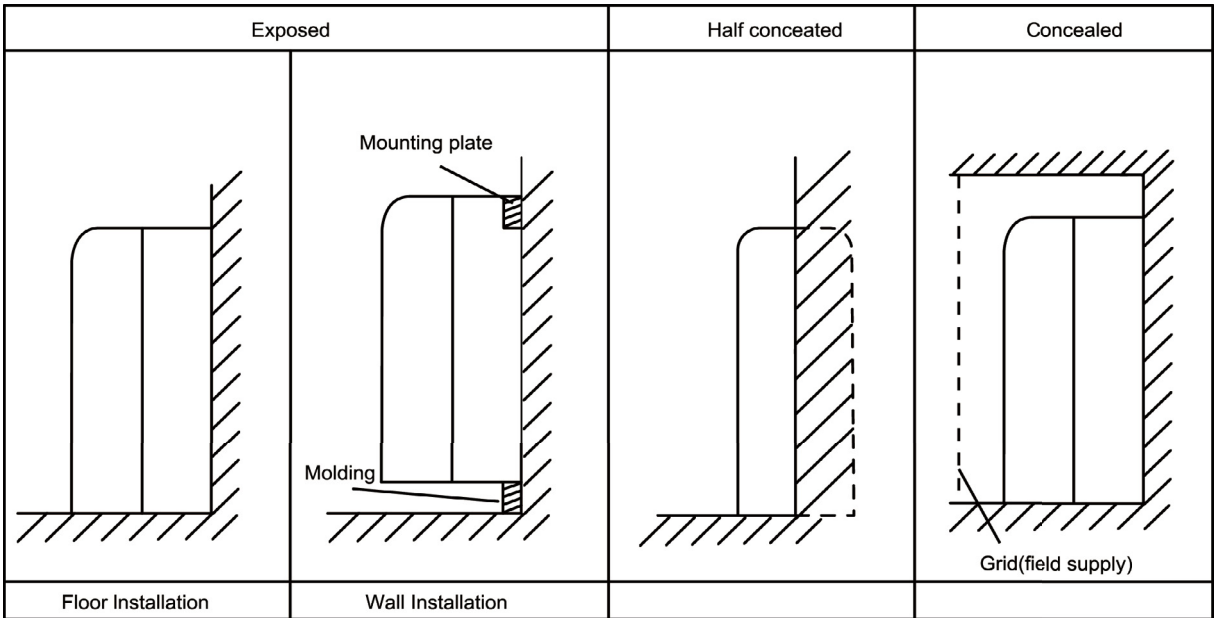
Model	W	H	D
GMV-N22G/A3A-K, GMV-N22G/A2A-K, GMV-N22G/A4A-K GMV-N22G/A8A-K, GMV-N22G/C9A-K, GMV-N22G/E3A-K GMV-N28G/A3A-K, GMV-N28G/A2A-K, GMV-N28G/A4A-K GMV-N28G/A8A-K, GMV-N28G/C9A-K, GMV-N28G/E3A-K GMV-N22G/B3A-K, GMV-N28G/B3A-K GMV-N22G/A3A-D, GMV-N28G/A3A-D, GMV-N22G/A2A-D GMV-N28G/A2A-D, GMV-N22G/A4A-D, GMV-N28G/A4A-D GMV-N22G/A8A-D, GMV-N28G/A8A-D, GMV-N22G/C9A-D GMV-N28G/C9A-D, GMV-N22G/E3A-D, GMV-N28G/E3A-D GMV-N22G/B3A-D, GMV-N28G/B3A-D GMV-ND22G/A3A-T, GMV-ND28G/A3A-T GMV-ND22G/A8A-T, GMV-ND28G/A8A-T	843	275	180
GMV-N36G/A3A-K, GMV-N36G/A2A-K, GMV-N36G/A4A-K GMV-N36G/A8A-K, GMV-N36G/C9A-K, GMV-N36G/E3A-K GMV-N45G/A3A-K, GMV-N45G/A2A-K, GMV-N45G/A4A-K GMV-N45G/A8A-K, GMV-N45G/C9A-K, GMV-N45G/E3A-K GMV-N50G/A3A-K, GMV-N50G/A2A-K, GMV-N50G/A4A-K GMV-N50G/A8A-K, GMV-N50G/C9A-K, GMV-N50G/E3A-K GMV-N36G/B3A-K, GMV-N45G/B3A-K, GMV-N50G/B3A-K GMV-N36G/A3A-D, GMV-N45G/A3A-D, GMV-N50G/A3A-D GMV-N36G/A2A-D, GMV-N45G/A2A-D, GMV-N50G/A2A-D GMV-N36G/A4A-D, GMV-N45G/A4A-D, GMV-N50G/A4A-D GMV-N36G/A8A-D, GMV-N45G/A8A-D, GMV-N50G/A8A-D GMV-N36G/C9A-D, GMV-N45G/C9A-D, GMV-N50G/C9A-D GMV-N36G/E3A-D, GMV-N45G/E3A-D, GMV-N50G/E3A-D GMV-N36G/B3A-D, GMV-N45G/B3A-D, GMV-N50G/B3A-D GMV-ND36G/A3A-T, GMV-ND45G/A3A-T, GMV-ND50G/A3A-T GMV-ND36G/A8A-T, GMV-ND45G/A8A-T, GMV-ND50G/A8A-T	940	298	200

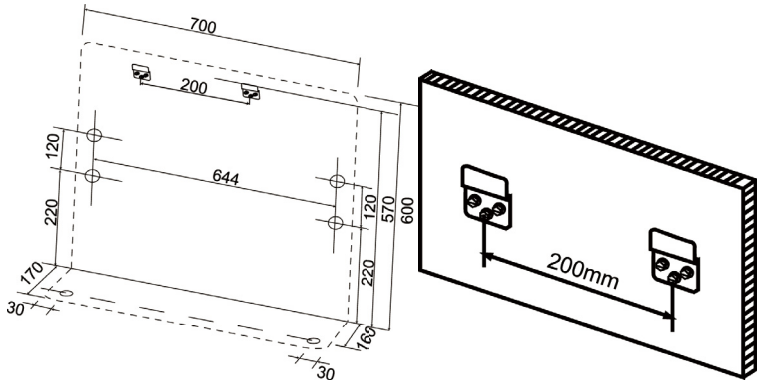
Model	W	H	D
GMV-N56G/A3A-K, GMV-N56G/A2A-K, GMV-N56G/A4A-K GMV-N56G/A8A-K, GMV-N56G/C9A-K, GMV-N56G/E3A-K GMV-N56G/B3A-K GMV-N63G/A3A-K, GMV-N63G/A2A-K, GMV-N63G/A4A-K GMV-N63G/A8A-K, GMV-N63G/C9A-K, GMV-N63G/E3A-K GMV-N63G/B3A-K GMV-N71G/A3A-K, GMV-N71G/A2A-K, GMV-N71G/A4A-K GMV-N71G/A8A-K, GMV-N71G/C9A-K, GMV-N71G/E3A-K GMV-N71G/B3A-K GMV-N56G/A3A-D, GMV-N63G/A3A-D, GMV-N71G/A3A-D GMV-N56G/A2A-D, GMV-N63G/A2A-D, GMV-N71G/A2A-D GMV-N56G/A4A-D, GMV-N63G/A4A-D, GMV-N71G/A4A-D GMV-N56G/A8A-D, GMV-N63G/A8A-D, GMV-N71G/A8A-D GMV-N56G/C9A-D, GMV-N63G/C9A-D, GMV-N71G/C9A-D GMV-N56G/E3A-D, GMV-N63G/E3A-D, GMV-N71G/E3A-D GMV-N56G/B3A-D, GMV-N63G/B3A-D, GMV-N71G/B3A-D GMV-ND56G/A3A-T, GMV-ND63G/A3A-T, GMV-ND71G/A3A-T GMV-ND56G/A8A-T, GMV-ND63G/A8A-T, GMV-ND71G/A8A-T	1008	319	221
GMV-ND80G/A3A-T, GMV-ND90G/A3A-T, GMV-ND100G/A3A-T GMV-ND80G/A8A-T, GMV-ND90G/A8A-T, GMV-ND100G/A8A-T	1350	326	258
GMV-ND15G/B4B-T, GMV-ND18G/B4B-T,GMV-ND22G/B4B-T, GMV-ND28G/B4B-T,GMV-ND15G/B6B-T, GMV-ND18G/B6B-T,GMV-ND22G/B6B-T, GMV-ND28G/B6B-T, GMV-ND22G/C4B-T, GMV-ND28G/C4B-T, GMV-ND22G/D2B-T, GMV-ND28G/D2B-T, GMV-ND22G/C2B-T, GMV-ND28G/C2B-T	845	289	209
GMV-ND36G/B4B-T, GMV-ND45G/B4B-T, GMV-ND50G/B4B-T, GMV-ND36G/B6B-T, GMV-ND45G/B6B-T, GMV-ND50G/B6B-T GMV-ND36G/C4B-T, GMV-ND45G/C4B-T, GMV-ND50G/C4B-T GMV-ND36G/C2B-T, GMV-ND45G/C2B-T, GMV-ND50G/C2B-T GMV-ND36G/D2B-T, GMV-ND45G/D2B-T, GMV-ND50G/D2B-T	970	300	224
GMV-ND56G/B4B-T, GMV-ND63G/B4B-T, GMV-ND71G/B4B-T,GMV-ND56G/B6B-T, GMV-ND63G/B6B-T, GMV-ND71G/B6B-T GMV-ND56G/C4B-T, GMV-ND63G/C4B-T, GMV-ND71G/C4B-T GMV-ND56G/C2B-T, GMV-ND63G/C2B-T, GMV-ND71G/C2B-T GMV-ND56G/D2B-T, GMV-ND63G/D2B-T, GMV-ND71G/D2B-T	1078	325	246
GMV-ND80G/B4B-T, GMV-ND90G/B4B-T, GMV-ND100G/B4B-T	1350	326	258

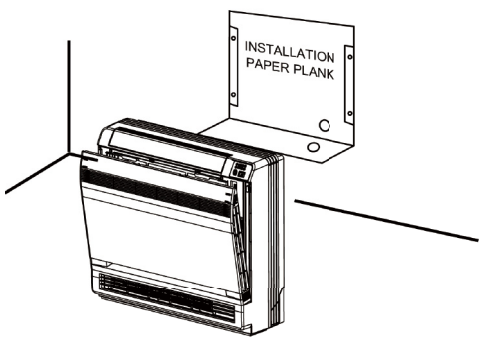
Installation and Maintenance Spaces(Unit: mm)

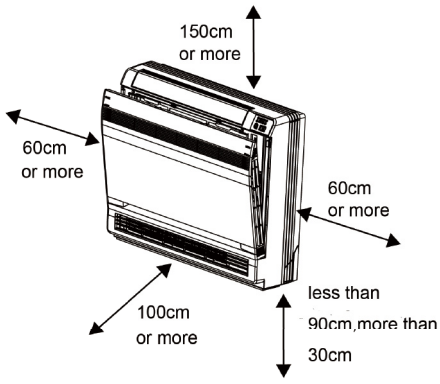


7.2.7 Console Type



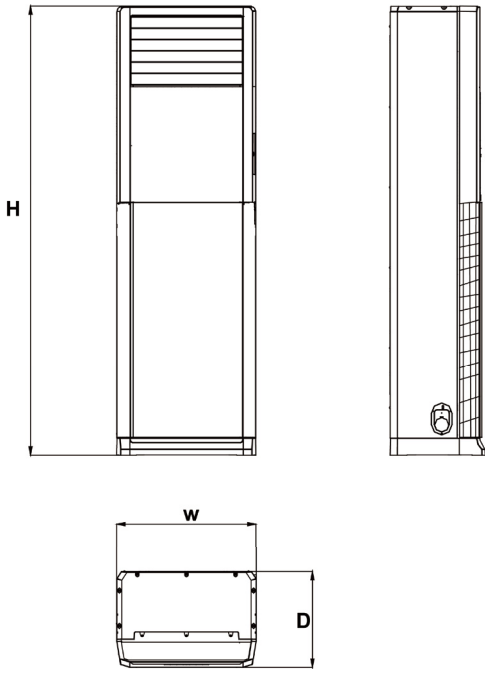






7.2.8 Floor Standing Type

External Dimensions

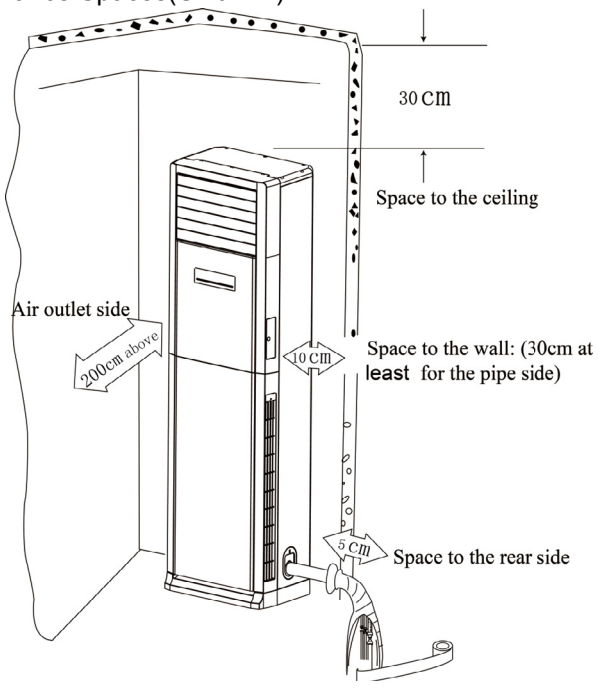


The table below lists the detailed dimensions.

Unit: mm

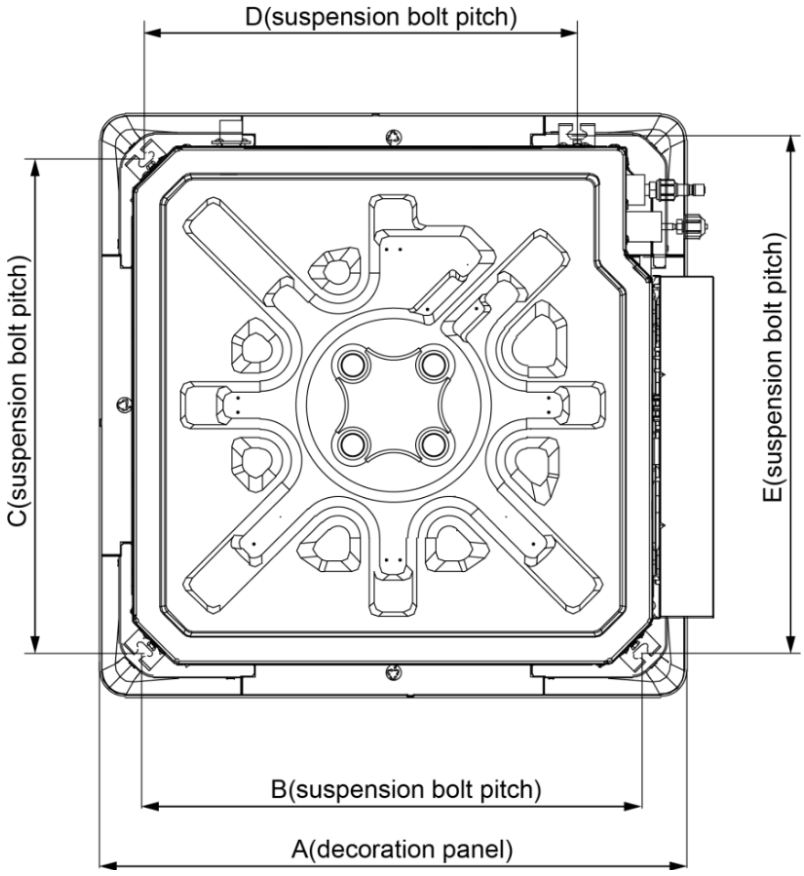
Model	H	W	D
GMV-ND100L/A-T GMV-ND140L/A-T	1870	580	400

Installation and Maintenance Spaces(Unit:mm)



7.2.9 Compact Four-way Cassette Type

Requirements for external dimensions and installation and maintenance spaces

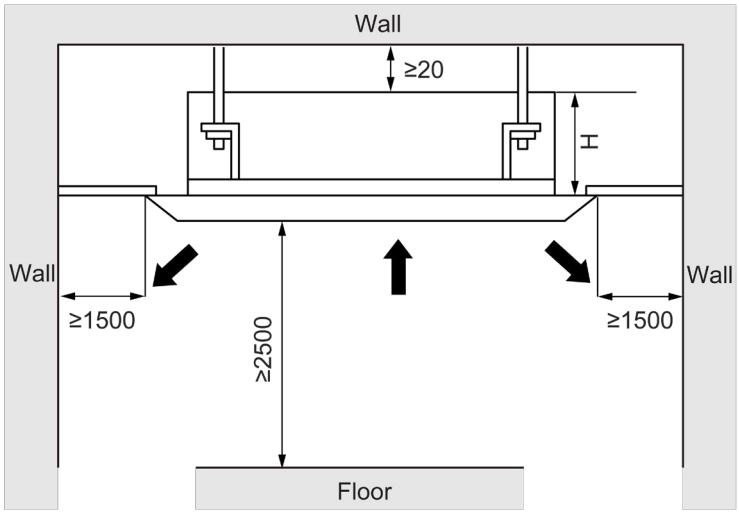


Below are dimensions of A, B, C, etc. for different models:

Unit: mm

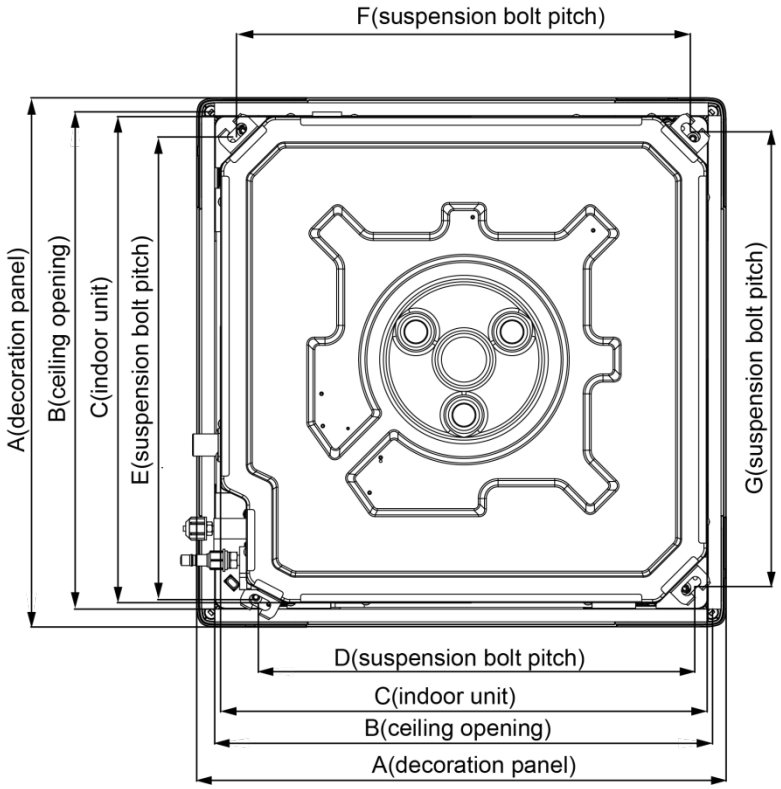
Model	A	B	C	D	E
GMV-ND22T/B-T	670	570	570	495	600
GMV-ND28T/B-T					
GMV-ND36T/B-T					
GMV-ND45T/B-T					
GMV-ND50T/B-T					
GMV-ND56T/B-T					

Unit: mm



Model	H
GMV-ND22T/B-T	255
GMV-ND28T/B-T	
GMV-ND36T/B-T	
GMV-ND45T/B-T	
GMV-ND50T/B-T	
GMV-ND56T/B-T	

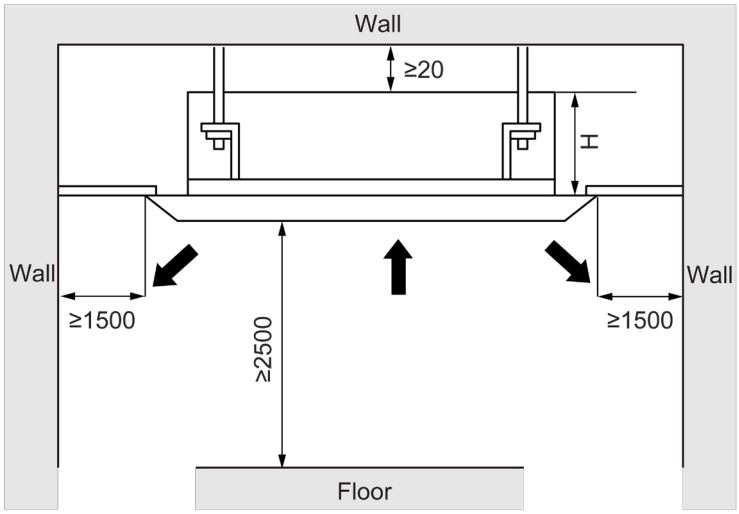
7.2.10 360°Air Discharge Compact Cassette Type



Unit: mm

Model	A	B	C	D	E	F	G
GMV-ND15T/E-T	620	580	570	505	550	530	530
GMV-ND18T/E-T							
GMV-ND22T/E-T							
GMV-ND28T/E-T							
GMV-ND36T/E-T							
GMV-ND45T/E-T							
GMV-ND50T/E-T							
GMV-ND56T/E-T							

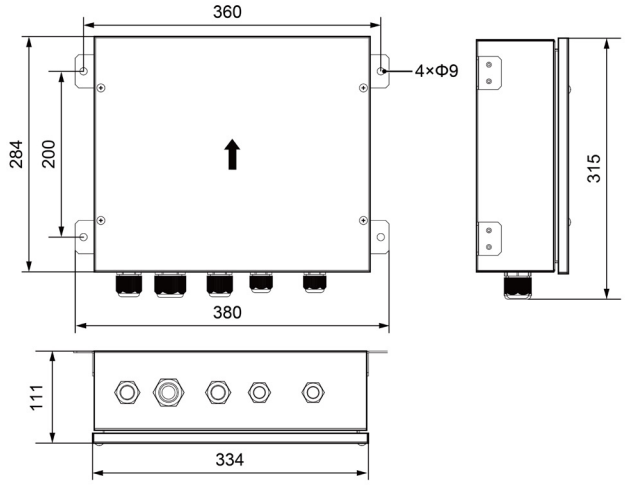
Unit: mm



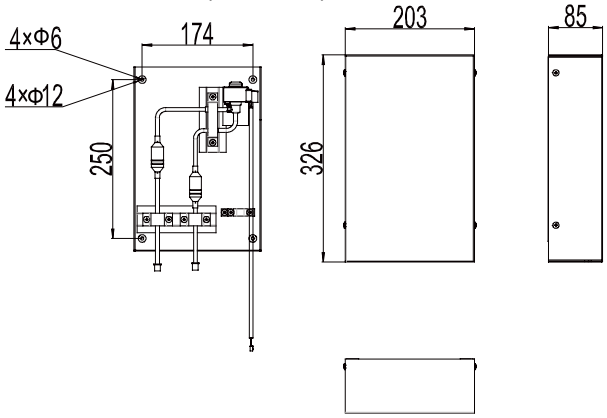
Model	H
GMV-ND15T/E-T	305
GMV-ND18T/E-T	
GMV-ND22T/E-T	
GMV-ND28T/E-T	
GMV-ND36T/E-T	
GMV-ND45T/E-T	
GMV-ND50T/E-T	
GMV-ND56T/E-T	

7.2.11 AHU-KIT Type

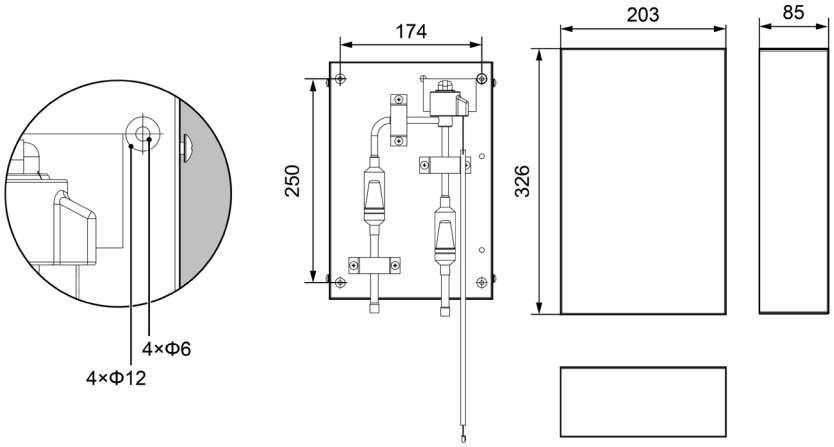
(1) Size of control box for GMV-N36U/C-T, GMV-N71U/C-T, GMV-N140U/C-T, GMV-N280U/C-T and GMV-N560U/C-T (Unit: mm):



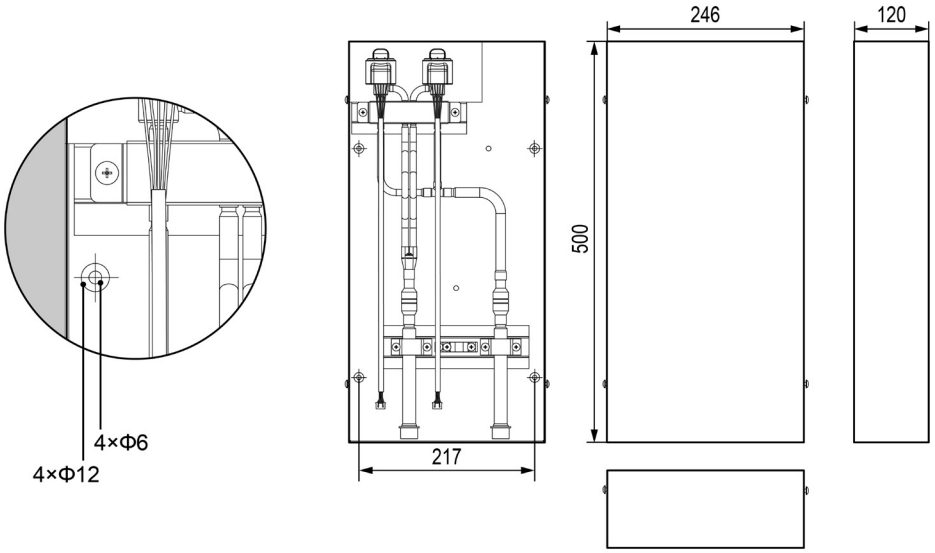
(2) Size of EXV box for GMV-N36U/C-T(Unit: mm):



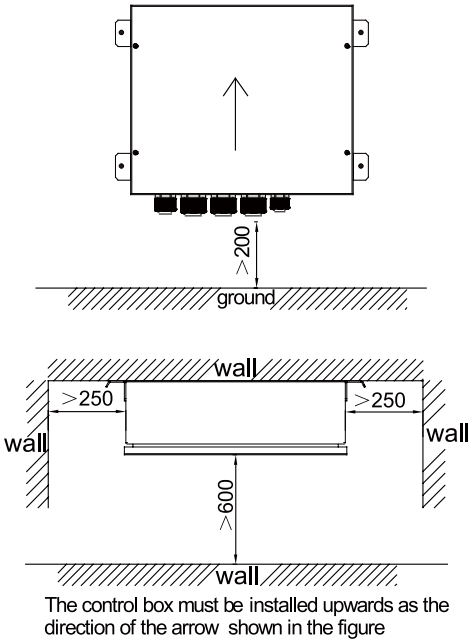
(3) GMV-N71U/C-T, GMV-N140U/C-T and GMV-N280U/C-T(Unit: mm):



(4) Size of EXV box for GMV-N560U/A-T (Unit: mm):

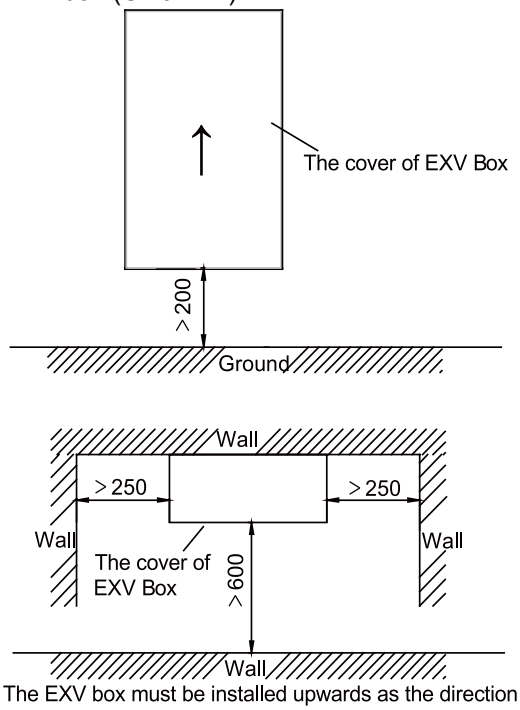


(5) Maintenance space of control space (Unit: mm):



The control box must be installed upwards as the direction of the arrow shown in the figure

(6) Maintenance space of EXV box (Unit: mm):



The EXV box must be installed upwards as the direction of the arrow shown in the figure

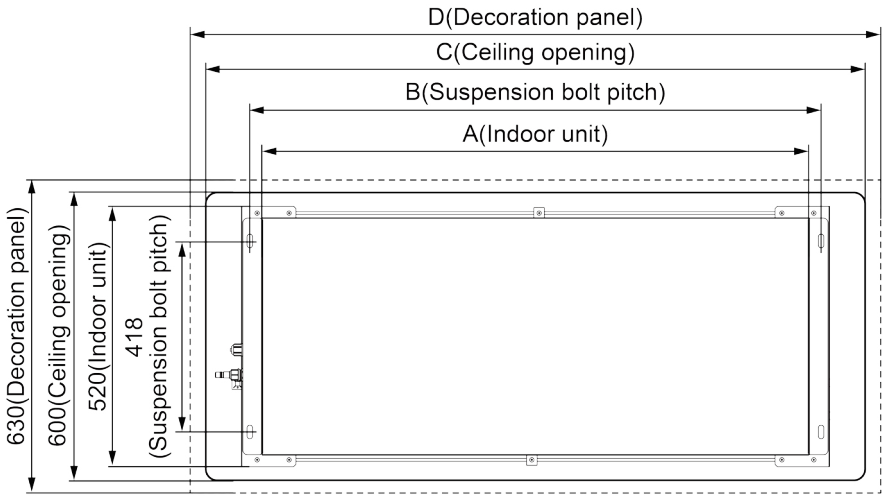
7.2.12 Two-way Cassette Type

Requirements for external dimensions and installation and maintenance spaces

7.2.12.1 GMV-ND**TS/A-T

External Dimensions

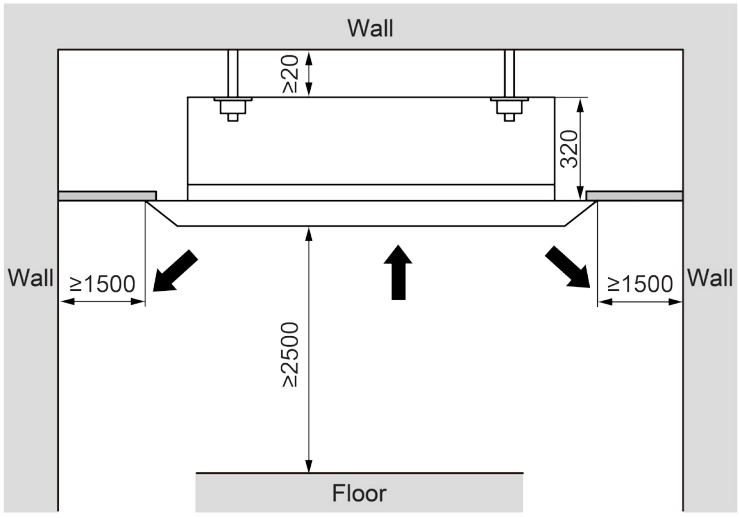
Unit: mm



Model	Indoor unit(A)	Suspension bolt pitch(B)	Ceiling opening(C)	Decoration panel(D)	Outer diameter of connection pipe(mm)	
					Liquid pipe	Gas pipe
GMV-ND28TS/A-T	1200	1252	1386	1416	6.35	9.52
GMV-ND36TS/A-T GMV-ND45TS/A-T GMV-ND50TS/A-T	1200	1252	1386	1416	6.35	12.7
GMV-ND56TS/A-T GMV-ND63TS/A-T GMV-ND71TS/A-T	1200	1252	1386	1416	9.52	15.9

Installation and Maintenance Spaces

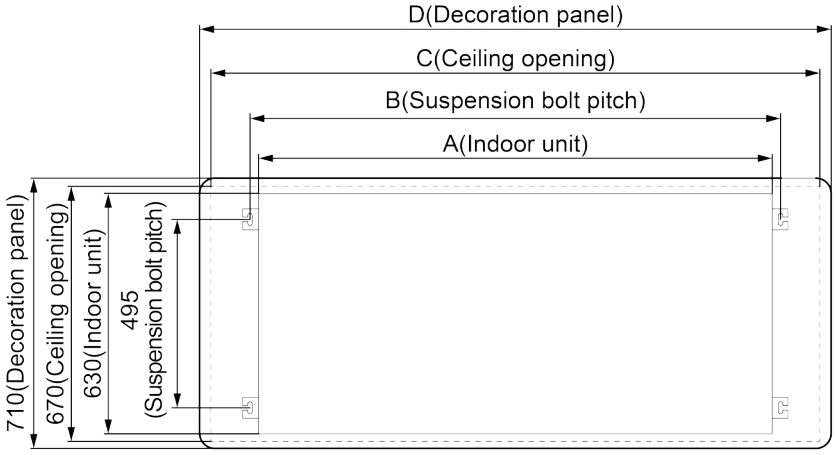
Unit: mm



7.2.12.2 GMV-ND**TS/B-T

Ceiling Opening Dimension and Suspension Bolt Position

Unit: mm

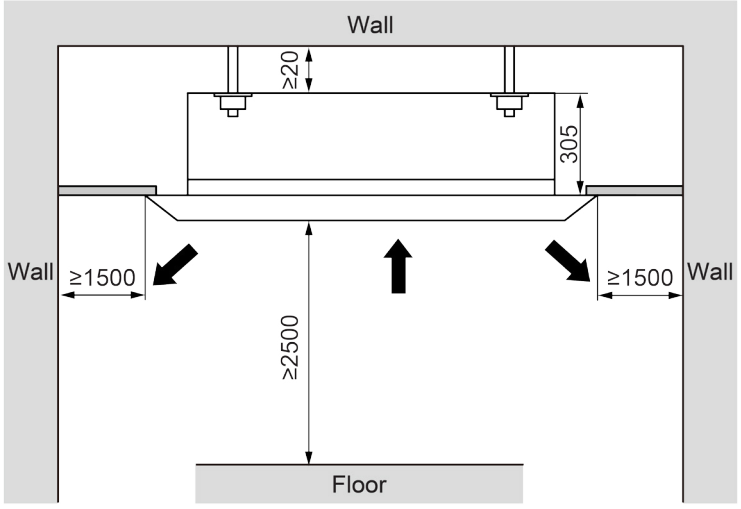


Unit: mm

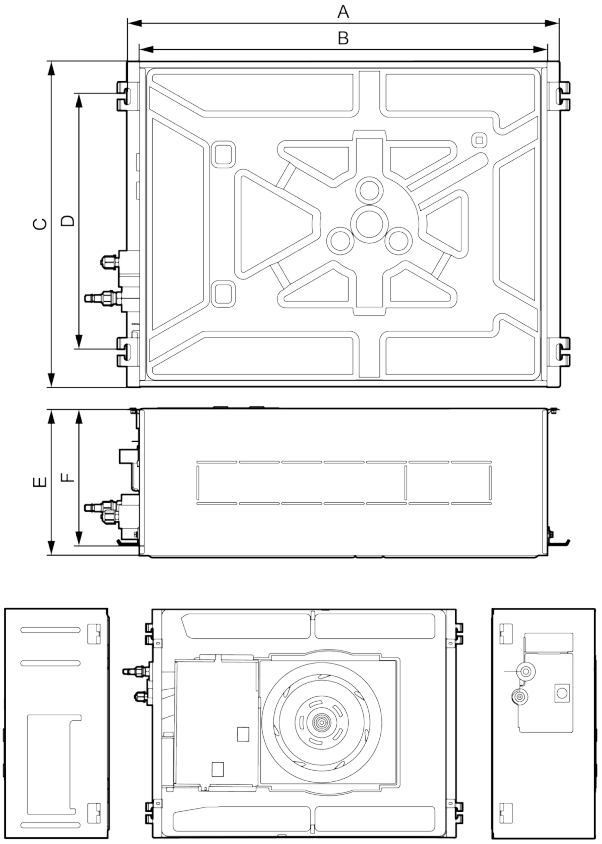
Model	Indoor unit(A)	Suspension bolt pitch(B)	Ceiling opening(C)	Decoration panel(D)
GMV-ND28~80TS/B-T	790	834	990	1100

Installation Position Selection

Unit: mm



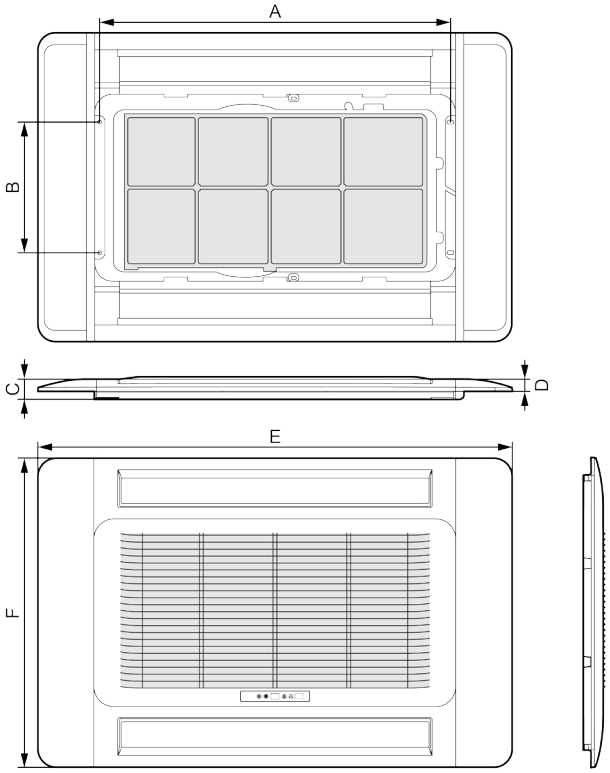
Three-view drawing of main body



Unit: mm

Model	A	B	C	D	E	F
GMV-ND28~80TS/B-T	835	790	630	495	280	261

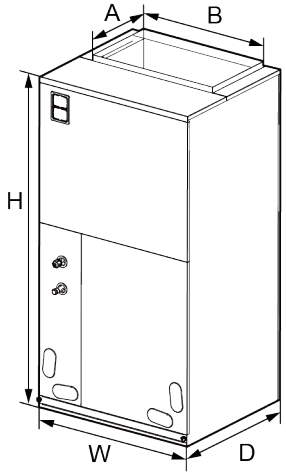
Three-view drawing of panel



Unit: mm

Model	A	B	C	D	E	F
TE03	813	300	46	28	1100	710

7.2.13 Air Handler type Indoor Unit



Unit: mm

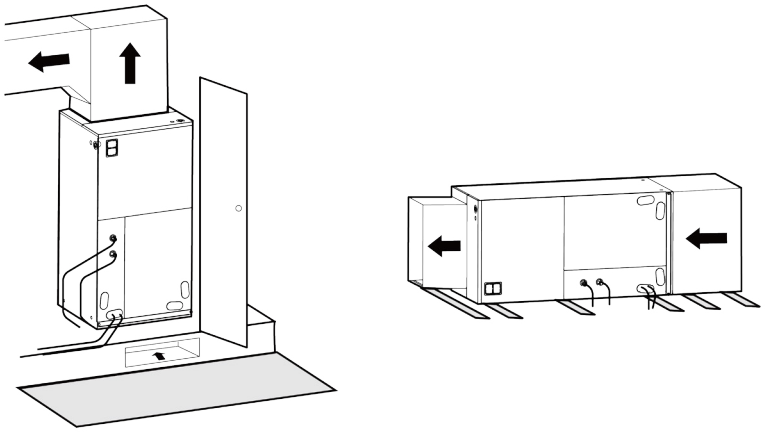
Model	DIMENSION				
	W	D	H	A	B
GMV-NR71A/A-D	460	540	1105	295	426
GMV-NR90A/A-D	460	540	1105	295	426
GMV-NR100A/A-D	540	540	1224	295	508
GMV-NR112A/A-D	540	540	1224	295	508
GMV-NR140A/A-D	630	540	1224	295	508

When installing the air handler, take consideration to minimize the length of refrigerant tubing as much as possible. Do not install the air handler in a location either above or below the condenser that violates the instructions provided with the condenser. Service clearance is to take precedence. Allow a minimum of 24” in front of the unit for service clearance. When installing in an area directly over a finished ceiling (such as an attic), an emergency drain pan is required directly under the unit. See local and state codes for requirements. When installing this unit in an area that may become wet, elevate the unit with a sturdy, non-porous material. In installations that may lead to physical damage (i.e. a garage) it is advised to install a protective barrier to prevent such damage.

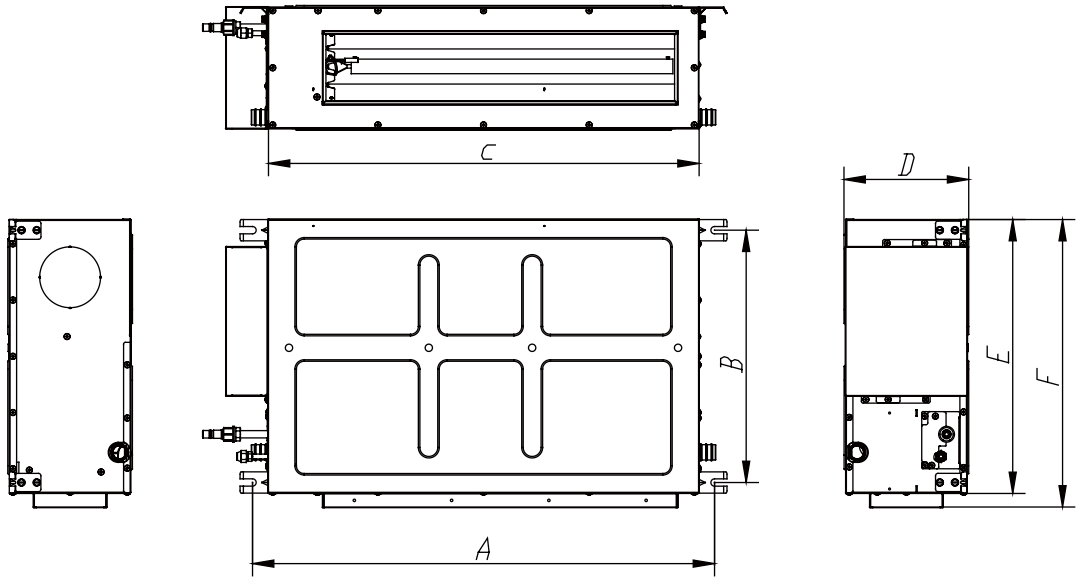
This air handler is designed for a complete supply and return ductwork system. Do not operate this product without all ductwork attached.

Based upon the actual conditions, if air handler is installed as type (A), the air handler should be concealed in a specific room or space and make sure the air handler is not accessible to the general public.

Based upon the actual conditions, if air handler is installed as type (B), make sure that there is enough space for care and maintenance and the height between the air handler and ground is above 2500mm. And the air handler is not accessible to the general public.



7.2.14 Slim Duct Type

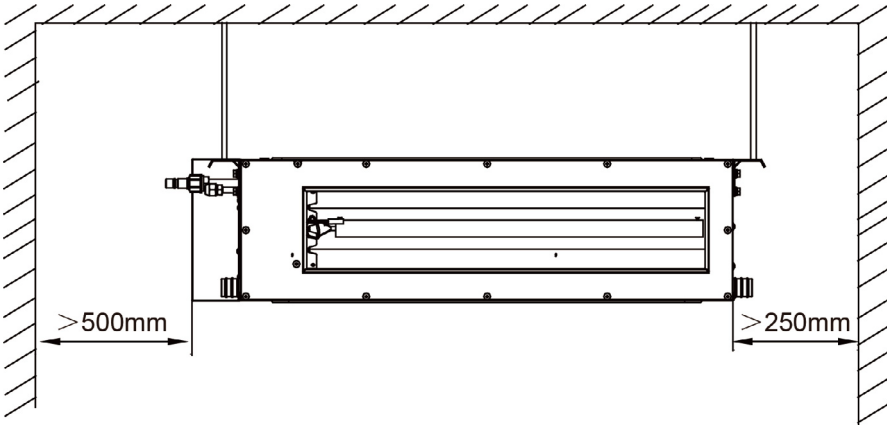


Unit: mm

Model	A	B	C	D	E	F
GMV-ND22~36PL/B-T GMV-ND22~36PLS/B1-T	760	415	710	200	450	475
GMV-ND40~63PL/B-T GMV-ND40~63PLS/B1-T	1060	415	1010	200	450	475
GMV-ND72PL/B-T GMV-ND71PLS/B1-T	1360	415	1310	200	450	475

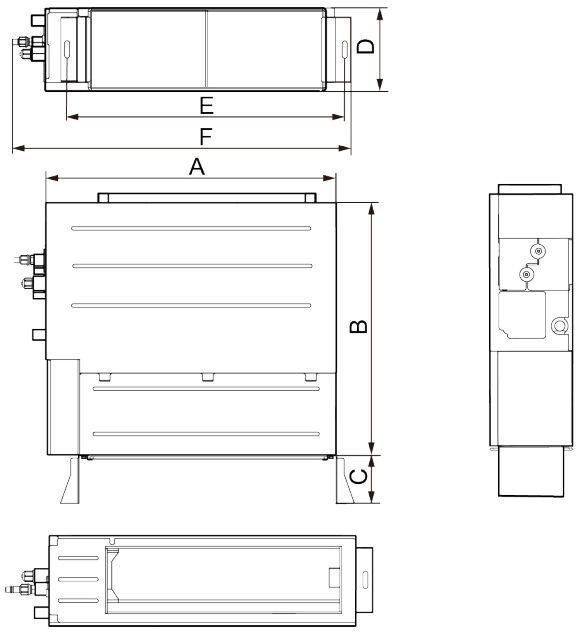
Installation space

Unit:mm



7.2.15 Concealed Floor Standing Type

(1) Outline and installation dimension

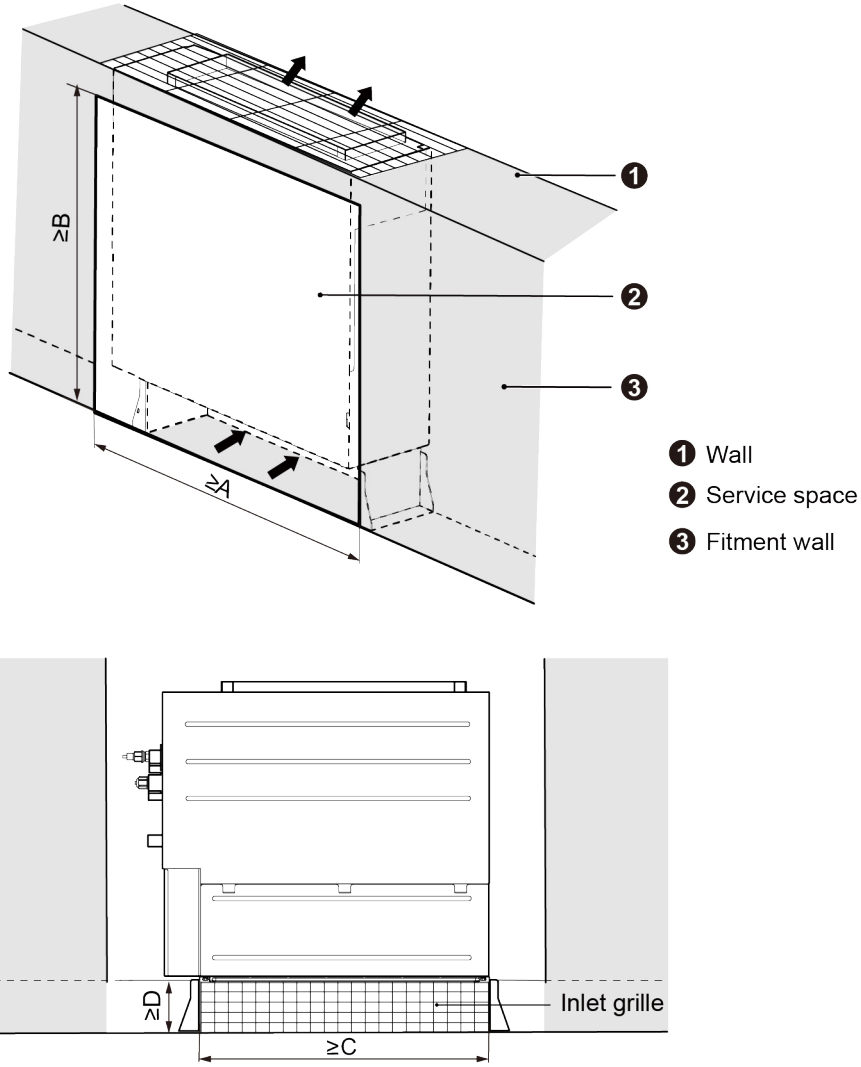


Below are dimensions of A, B, C, etc. for different models:

Unit: mm

Model	A	B	C	D	E	F
GMV-ND22~36ZA/A-T	700	615	120	200	665.5	837
GMV-ND45ZA/A-T	900	615	120	200	865.5	1045
GMV-ND56~71ZA/A-T	1100	615	120	200	1065.5	1236

(2) Installation space



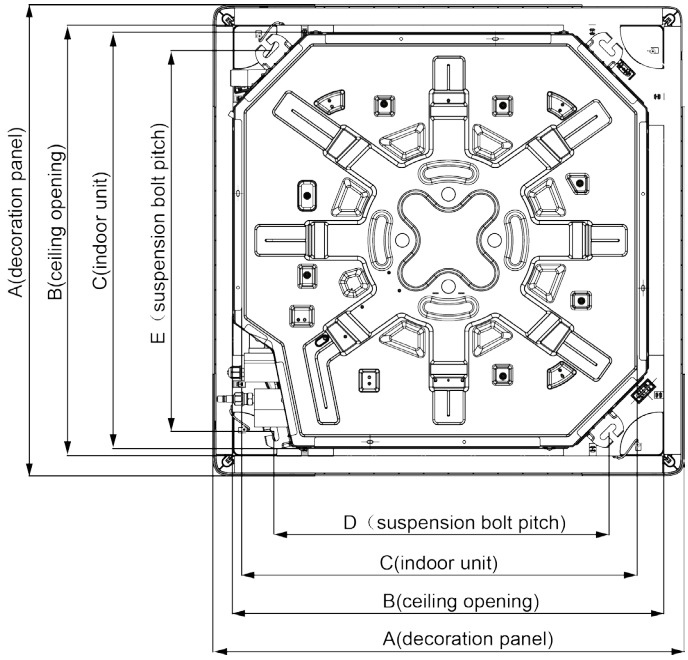
Below are dimensions of A, B, C, etc. for different models:

Unit: mm

Model	A	B	C	D	E	F	G	H
GMV-ND22~36ZA/A-T	1200	665	615	120	200	200	20	20
GMV-ND45ZA/A-T	1400	665	815	120	200	200	20	20
GMV-ND56~71ZA/A-T	1600	665	1015	120	200	200	20	20

7.2.16 360°Air Discharge Cassette Type

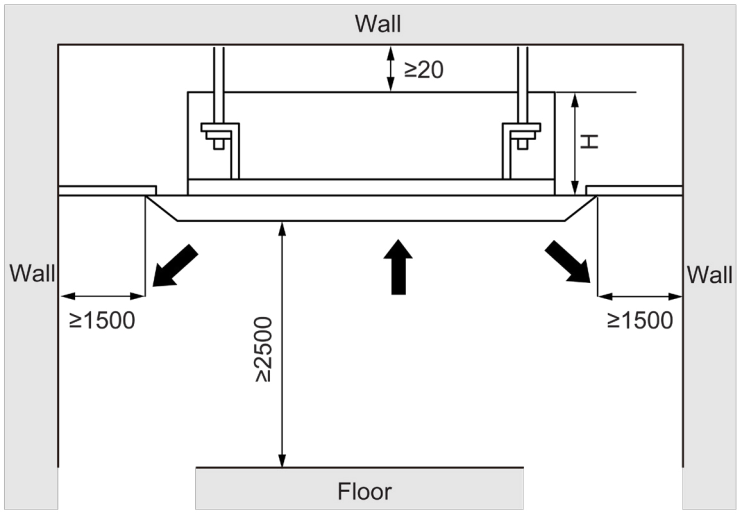
7.2.16.1 GMV-ND**T/C-T



Unit: mm

Model	A	B	C	D	E
GMV-ND22 ～ 160T/C-T	950	890	840	680	780

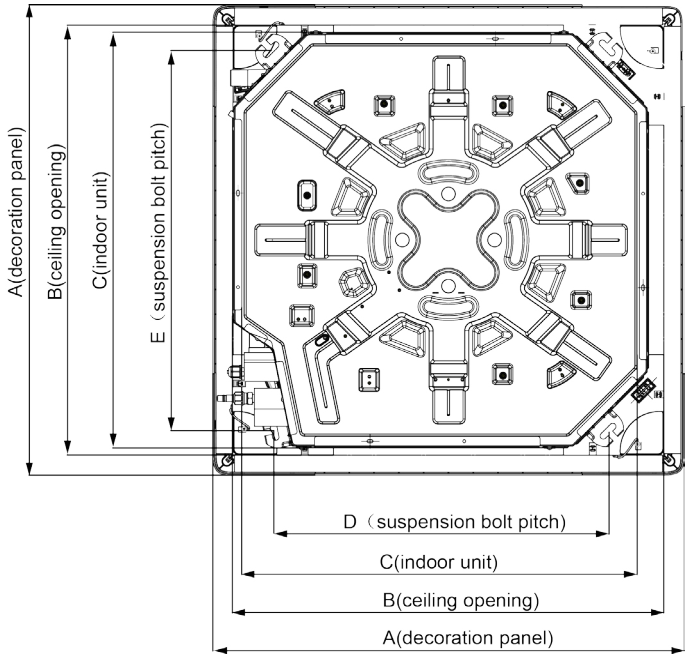
Unit: mm



Model	H(mm)
GMV-ND22~100T/C-T	275
GMV-ND112~160T/C-T	325

7.2.16.2 GMV-ND**T/C1-T

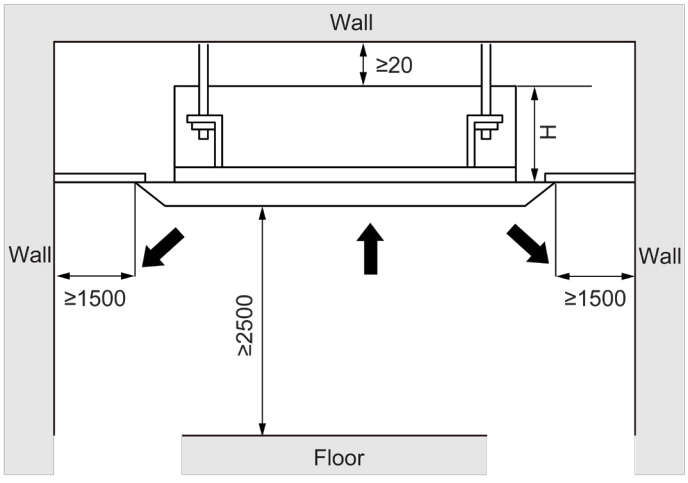
Ceiling Opening Dimension and Suspension Bolt Position.



Unit: mm

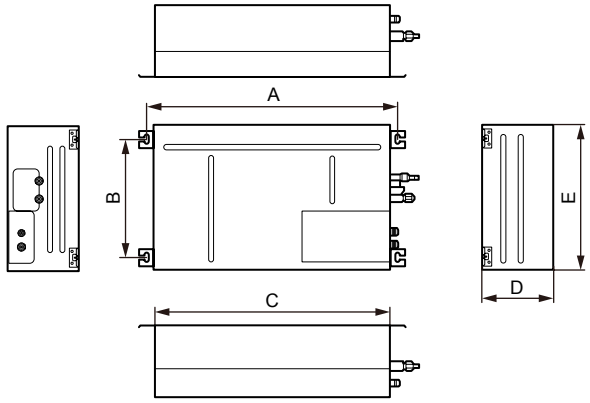
Model	A	B	C	D	E
GMV-ND22 ～ 50T/C1-T	950	890	840	680	780

Unit: mm



Model	H(mm)
GMV-ND22~50T/C1-T	235

7.2.17 Heat Storage Module

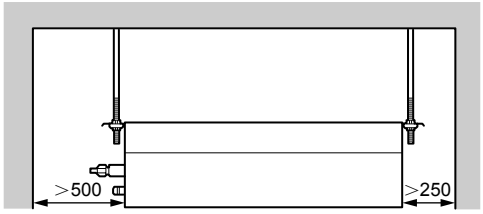


Unit: mm

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
XRZ180L/A-T	780	364	730	220	450

Installation space

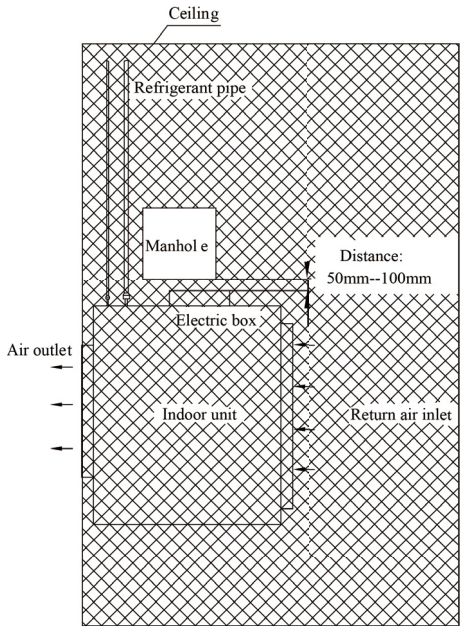
Unit: mm



7.3 Locating the manhole and air return vent

In addition to consideration of the sufficient maintenance space to be reserved during unit locating, it is also important to locate the manhole. If manhole locating is improper, it will also make future maintenance and repair more difficult.

The manhole size can accommodate the shoulder width of a normal adult. It cannot be smaller than 450 mm × 450 mm. Usually the indoor unit in the air supply mode of air duct is located at the electric box side of the unit, the distance from the electric box is 50 mm to 100 mm, and maintenance of the pipeline part must also be considered. The pipeline maintenance position of the pipeline is mainly considered for the air raise type indoor unit, so the manhole can be located at a position that ensures the distance between one edge and the connection pipe is 200 mm to 250 mm. The schematic diagram is shown below:



The air return vent position must also be considered for the indoor unit in the air supply mode of air duct. The air return vent is responsible for air return of the unit, and also used to complete maintenance of the indoor fan motor and filter screen. Therefore, in addition to meeting the air return design requirements mentioned above, there is a must to ensure the requirement for replacing the motor and filter screen.

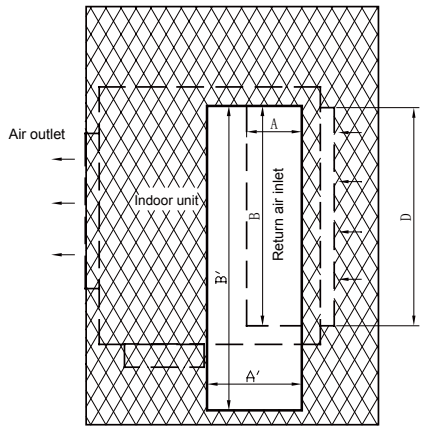
(1) Do not set the air return vent of the unit near the door, toilet or kitchen; otherwise problems such as condensation and peculiar smell may be caused.

(2) The length direction of the air return vent cannot be smaller than 2/3 of the air return venting length of the unit.

(3) If the air return vent is set directly behind the unit, the distance between its position and the unit cannot be greater than 300 mm.

(4) The width direction of the air return vent cannot be smaller than 200 mm.

(5) For the design of also using the air return vent as a manhole for the electric box, the maintenance position should also be reserved at the electric box side according to the above principle. At the same time, it is required to consider whether the position of the air return vent can ensure easy removal and replacement of the fan motor and filter screen. Therefore, the air return vent should be enlarged to 1.5 to 2 times of the original circulation area according to the actual conditions and on the basis of satisfying the air volume design. The schematic diagram is shown below:

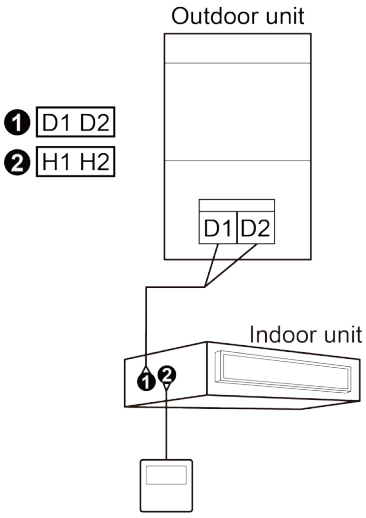


Original air return vent area: S = A×B
Currently air return vent area: S' = A' × B'
S'≥ (1.5~2.0)S

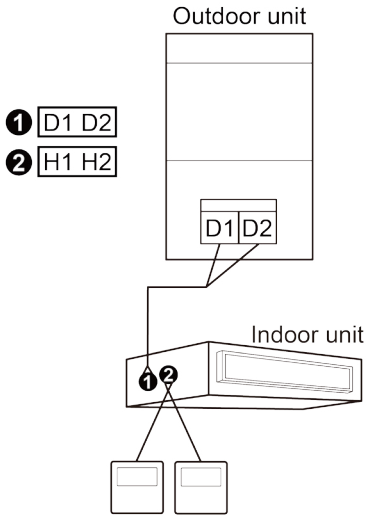
8 REQUIREMENTS FOR COMMUNICATION MODE

8.1 Communication Connection Mode between the Indoor Unit and Wired Controller

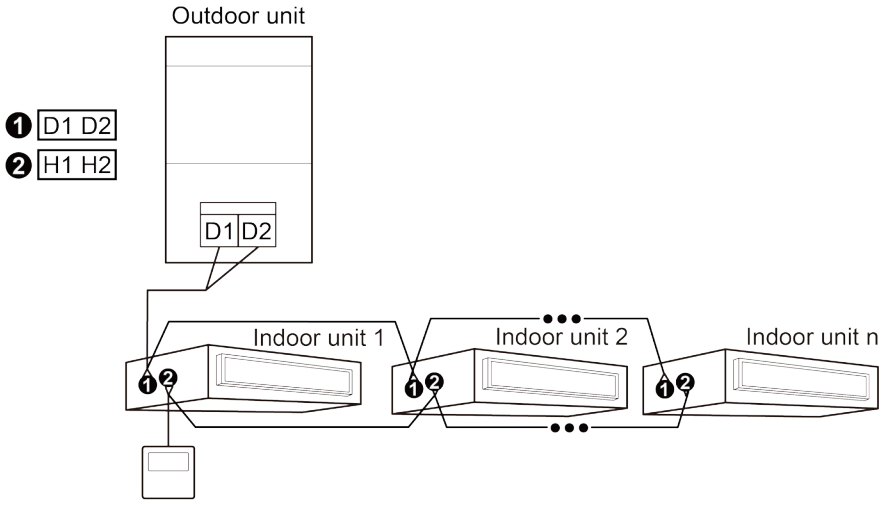
The indoor unit and the wired controller are connected in one of the following four modes, which are respectively shown in Figure below:



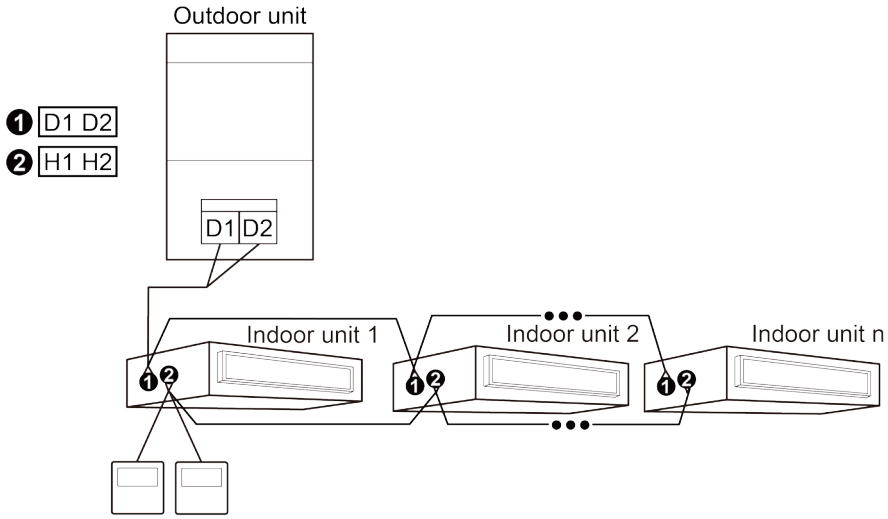
One wire controller controls one indoorunit



Two wire controllers control one indoor unit



One wire controller controls multiple indoor units



Two wire controllers control multiple indoor units

Note:

Multi variable air conditioners floor standing type indoor unit only applicable with One wire controller controls one indoor unit。

When two wired controllers control multiple indoor units at the same time, the wired controller can be connected to any indoor unit, the connected indoor units must belong to the same series, and only one wired controller must be set to a slave wired controller. The number of indoor units controlled by the wired controllers is not more than 16, and the connected indoor units must be on the same indoor unit network.

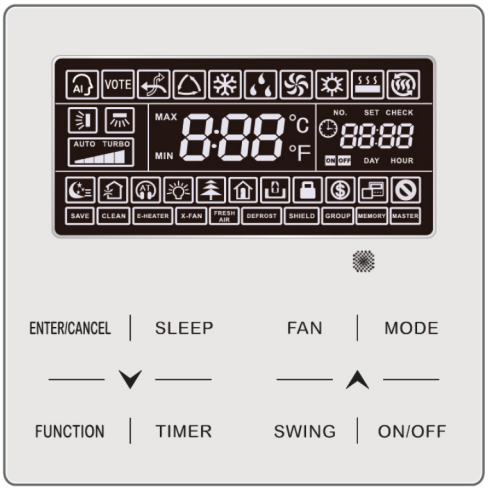
The slave wired controller can be set in the power-on or power-off status:

(1) Press and hold the “FUNCTION” button on the wired controller to be set to a slave wired controller for five seconds. The temperature area displays “C00”. Continue holding the “FUNCTION” button for five seconds to enter the wired controller parameter setting interface. The temperature area displays “P00” by default.

(2) Select a P13 parameter code by pressing “∧” or “∨”. Press the “MODE” button to switch to parameter value settings. The parameter value blinks. Press “∧” or “∨” to select “02”, and then press the “ENTER/CANCEL” button to complete settings.

(3) Press the “ENTER/CANCEL” button to return to the upper-level menu until quitting parameter settings.The user parameter setting list is as follows:

Parameter Code	Parameter Name	Parameter Range	Default Value	Remarks
P13	Wired controller address settings	01: master wired controller 02: slave wired controller	01	When two wired controllers simultaneously control one or more indoor units, the two wired controllers must use different addresses. The slave wired controller (address: 02) does not have the unit parameter setting function except its own address settings.



Notes:

① The default factory setting of all the wired controllers is the master wired controller status.

② In the parameter setting status, the “FAN”, “Timer”, “SLEEP”, and “SWING” buttons are invalid. By pressing “ON/OFF”, you can return to the main interface but will not power on/off the unit.

③ In the parameter setting status, signals of the remote controller are invalid.

8.2 Connection Mode between the Duct Type Indoor Unit and Receiving LED Panel

There are four kinds of wiring methods between the receiver and indoor unit network:

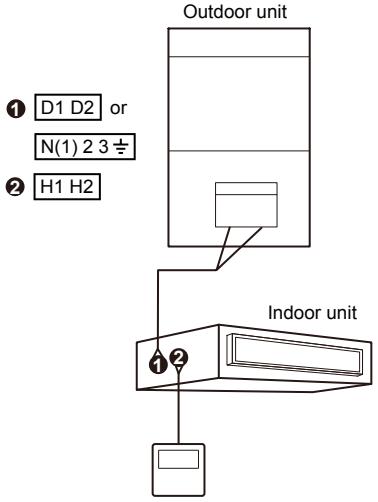


Figure 1 One Receiver Controls One Indoor unit

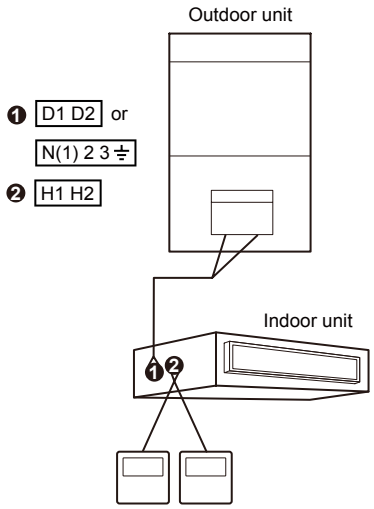


Figure 2 One Receiver and One Wired Controllers Control One Indoor unit

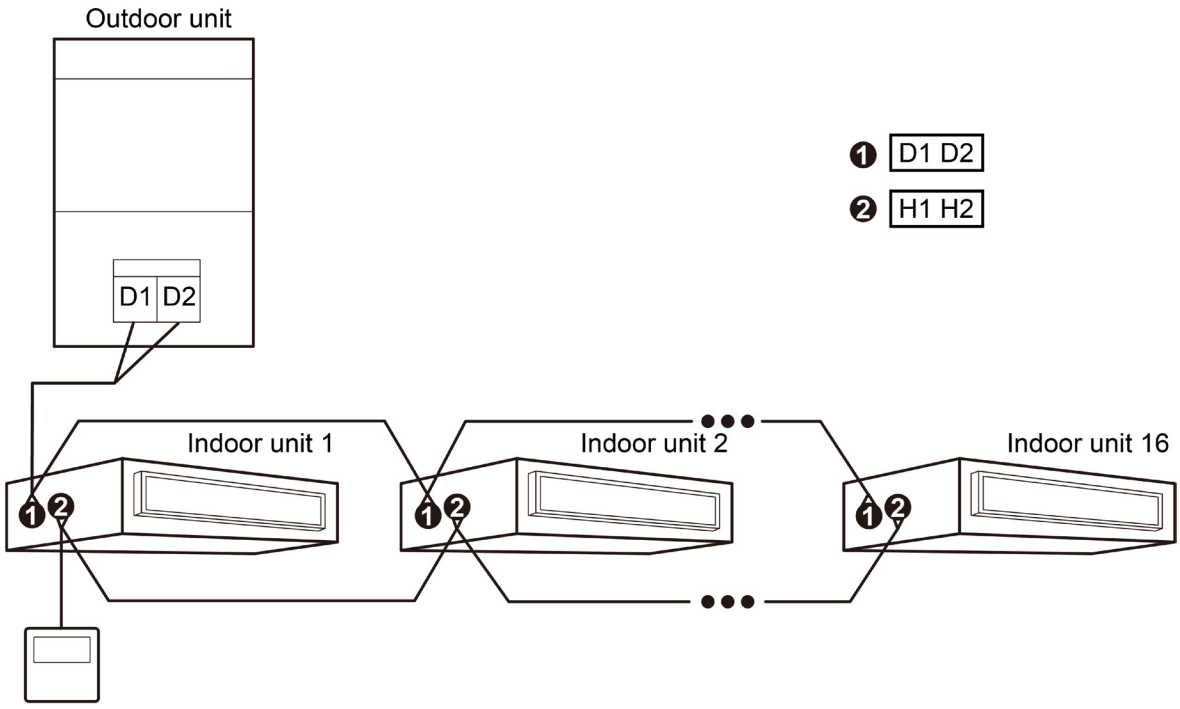


Figure 3 One Receiver Controls Several Multi VRF IDUs Simultaneously

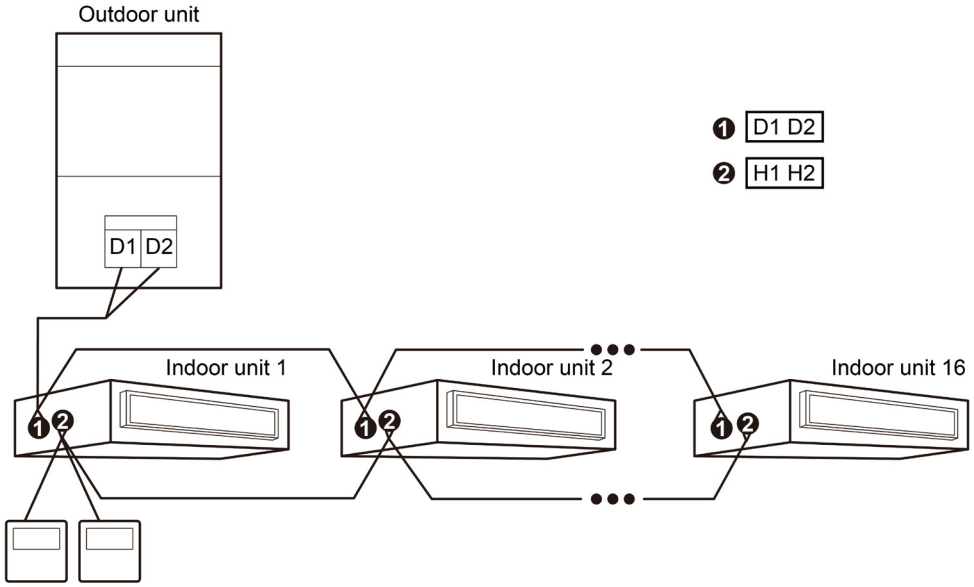


Figure 4 One Receiver and One Wired Controller Control Several Multi VRF IDUs Simultaneously

Notes:

(1) When the receiver is connected with multi VRF unit, the wiring methods as shown in Figure 1, Figure 2, Figure 3 and Figure 4 can be adopted, but please pay attention to the follow:

① When one receiver or one receiver and one wired controller control several indoor units simultaneously, the receiver can connect any one indoor unit, but the connected indoor unit shall be of the same indoor unit series and the connected indoor unit shall be in the same multi VRF system. When it is applied together with the wired controller, please set the indoor unit quantity of group control in the wired controller.

② When the receiver controls several indoor units simultaneously, the settings of all indoor units controlled by it shall be identical.

(2) In the wiring methods as shown in Figure 2, Figure 4, there can't be two receivers simultaneously and only one wired controller and one receiver are allowable. The wired controller can be set as master or slave wired controller and the receiver address will switch automatically (no need to set receiver address manually) according to the wired controller address (that is master/slave wired controller). The total quantity of receiver and wired controller can't exceed two.

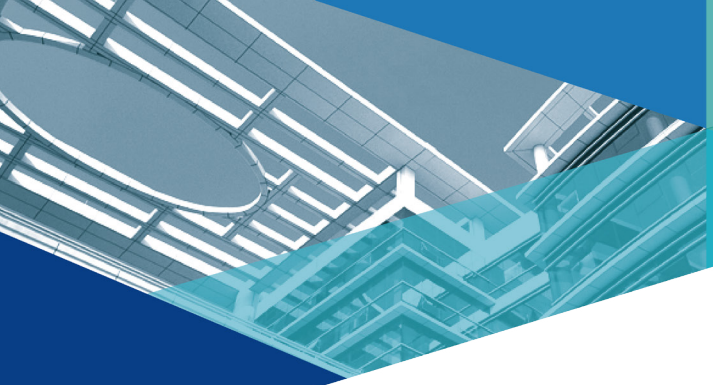
(3) The receiver interface is non-polar, but it can't be connected with heavy current.

(4) Wired controller and remote signal receiving LED panel can be used at the same time.

(5) When selecting remote signal receiving LED panel, select the remote controller.

9 OPTIONAL COMPONENTS

Wired controller	XK46, XK79, XK86, XE70-33/H	For the Cassette, Wall Mounted, Console, Floor Ceiling, Concealed Floor Standing, AHU-KIT type units
Remote controller	YAP1F	For the Duct type units
Remote receiving LED panel	JS13	Applicable to the Duct type indoor units
Centralized controller	CE52-24/F(C)	—
E-Smart Zone controller	CE54-24/F(C)	—



GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI 519070

Add: West Jinji Rd,Qianshan Zhuhai,Guangdong,China
Tel: (+86-756)8522218
Fax: (+86-756)8669426
E-mail: gree@cn.gree.com www.gree.com

SJ00455893