

2.3 2-way Air Discharge Cassette Type

2-way Air Discharge Cassette Type

MMU-AP0072WH / MMU-AP0092WH
MMU-AP0122WH / MMU-AP0152WH
MMU-AP0182WH / MMU-AP0242WH
MMU-AP0272WH / MMU-AP0302WH
MMU-AP0362WH / MMU-AP0482WH
MMU-AP0562WH



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1. Specifications

2-way Air Discharge Cassette Type



Model name		MMD-	AP0072WH	AP0092WH	AP0122WH	AP0152WH	AP0182WH	AP0242WH	AP0272WH	AP0302WH	AP0362WH	AP0482WH	AP0562WH						
Cooling/Heating capacity		(Note 1)	(kW)	2.2 / 2.5	2.8 / 3.2	3.6 / 4.0	4.5 / 5.0	5.6 / 6.3	7.1 / 8.0	8.0 / 9.0	9.0 / 10.0	11.2 / 12.5	14.0 / 16.0	16.0 / 18.0					
Electrical characteristics	Power supply	1 phase 50Hz 230V (220-240V) (Separate power supply for indoor units is required.)																	
	Running current	(A)	0.23			0.24	0.32	0.39			0.46	0.48	0.57	0.75					
	Power consumption	(kW)	0.029			0.03	0.044	0.054			0.064	0.073	0.088	0.117					
	Power factor	(%)	55			54	60			66	67	68							
	Starting current	(A)	0.35			0.36	0.48	0.59			0.69	0.72	0.86	1.13					
Appearance	Main unit	Heat-insulating material attached Zinc hot dipping steel plate																	
Ceiling panel	Model	RBC-UW283PG(W)-E				RBC-UW803PG(W)-E				RBC-UW1403PG(W)-E									
Panel colour		Moon white(Munsell 2.5GY9.0/0.5)																	
Outer dimensions	Main unit	Hight	(mm)				295		345										
		Width	(mm)				815				1180		1600						
		Depth	(mm)												570				
	Ceiling panel	Hight	(mm)												20				
		Width	(mm)				1050				1415				1835				
		Depth	(mm)												680				
Total weight	Main unit	(kg)		19				26				36							
	Ceiling panel	(kg)		10				14											
Heat exchanger		Finned tube																	
Sound proof / Heat-insulating material		Non-flammable insulation																	
Fan unit	Fan	Turbo fan						Centrifugal fan											
	Standard air flow (High/Mid/Low)	(m ³ /h)		558 / 498 / 450		600/534/ 450		900/750/ 618		1050 / 840 / 738		1260/900/ 780		1740/1434/ 1182		1800/1482/ 1230		2040/1578/ 1320	
	Motor output	(W)		20				30		40		50		70					
Air filter		Standard filter (Long life filter)																	
Controller		Remote controller																	
Connecting pipe	Gas pipe	(mm)		Ø 9.5		Ø 12.7		Ø 15.9											
	Liquid pipe	(mm)		φ 6.4						Ø 9.5									
	Drain port(Nominal dia. mm)	25 (Polyvinyl chloride tube)																	
Sound pressure level (High/Med./Low)		(Note 2)		(dB(A))		34 / 32 / 30		35 / 33 / 30		38 / 35 / 33		40/37/34		42/39/36		43/40/37		46/42/39	

Note 1 :The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping.

The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

Note 2 :The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

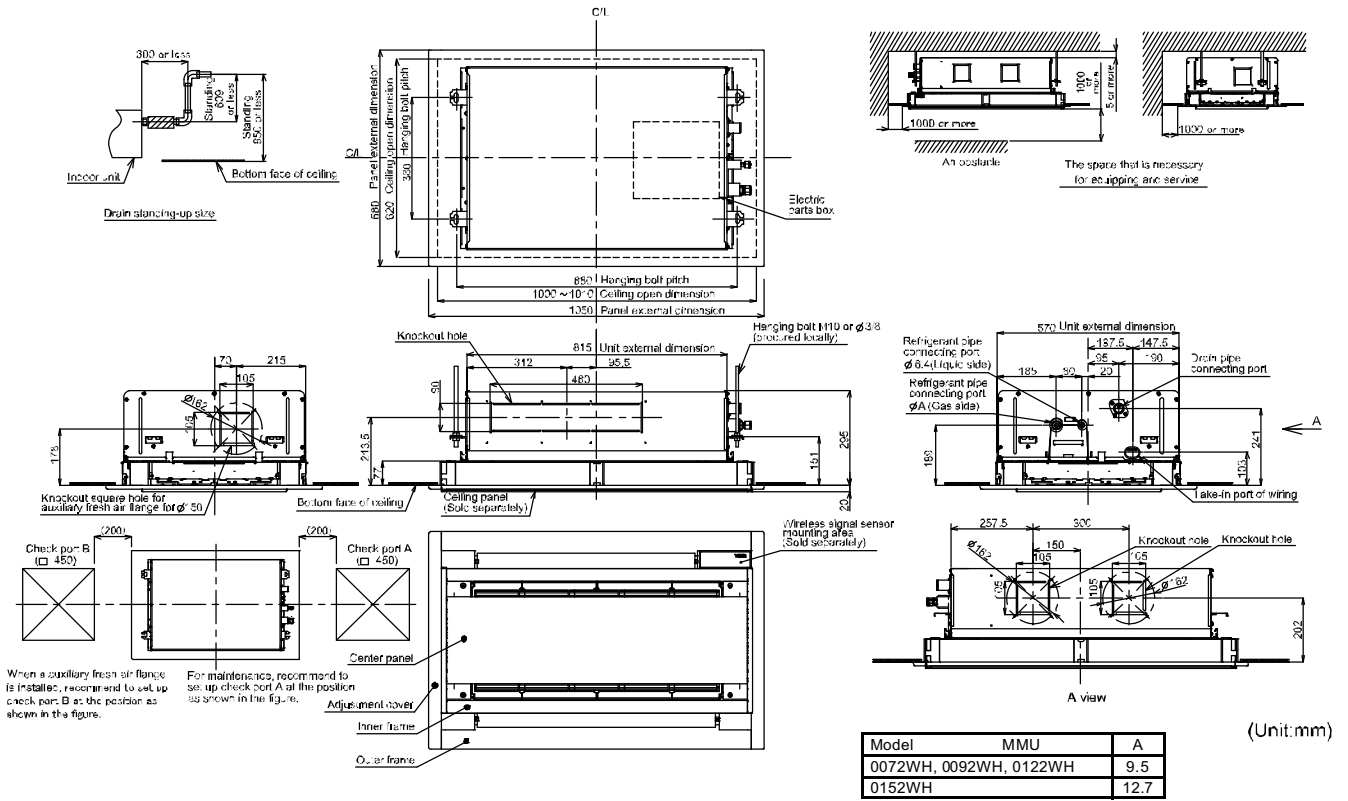
Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

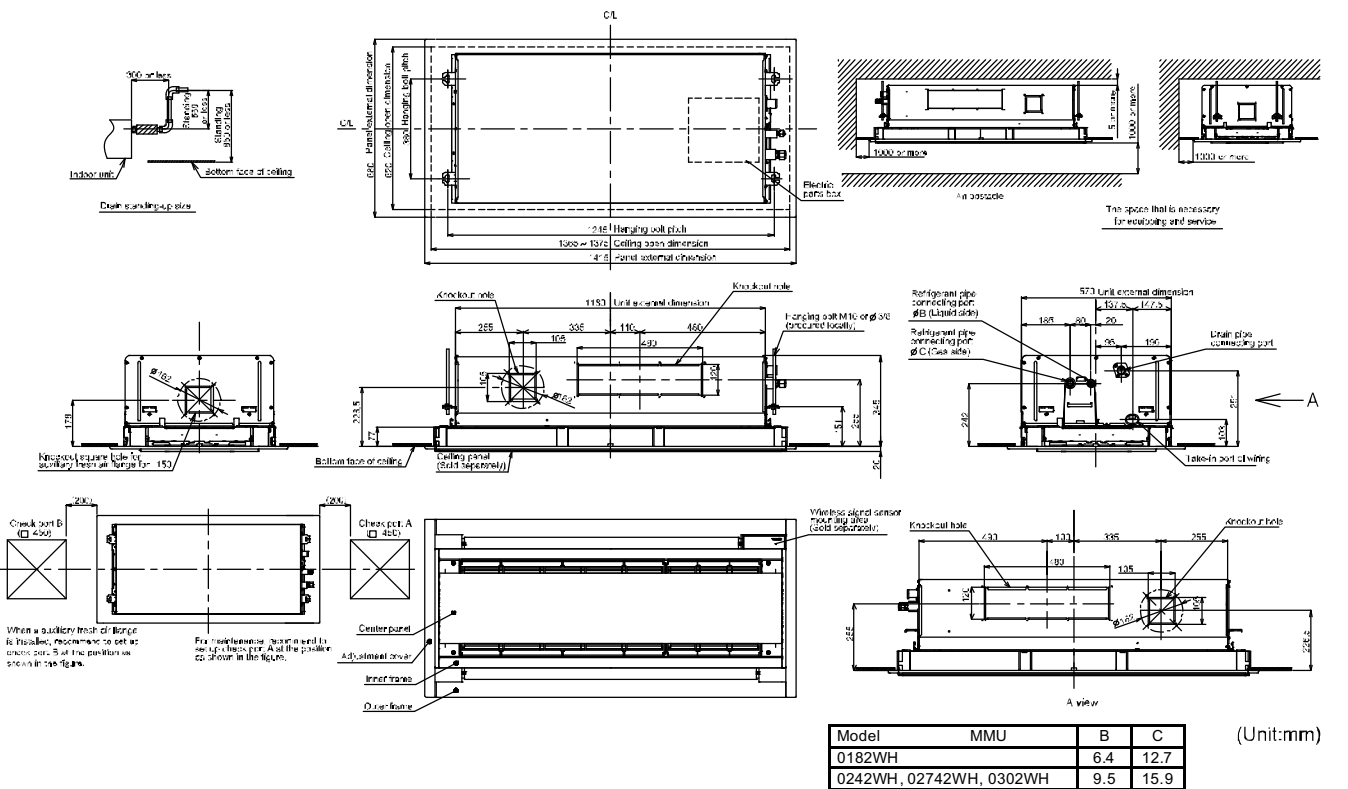


2. Dimension

MMU-AP0072WH, 0092WH, 0122WH, AP0152WH



MMU-AP0182WH, 0242WH, 0272WH, AP0302WH



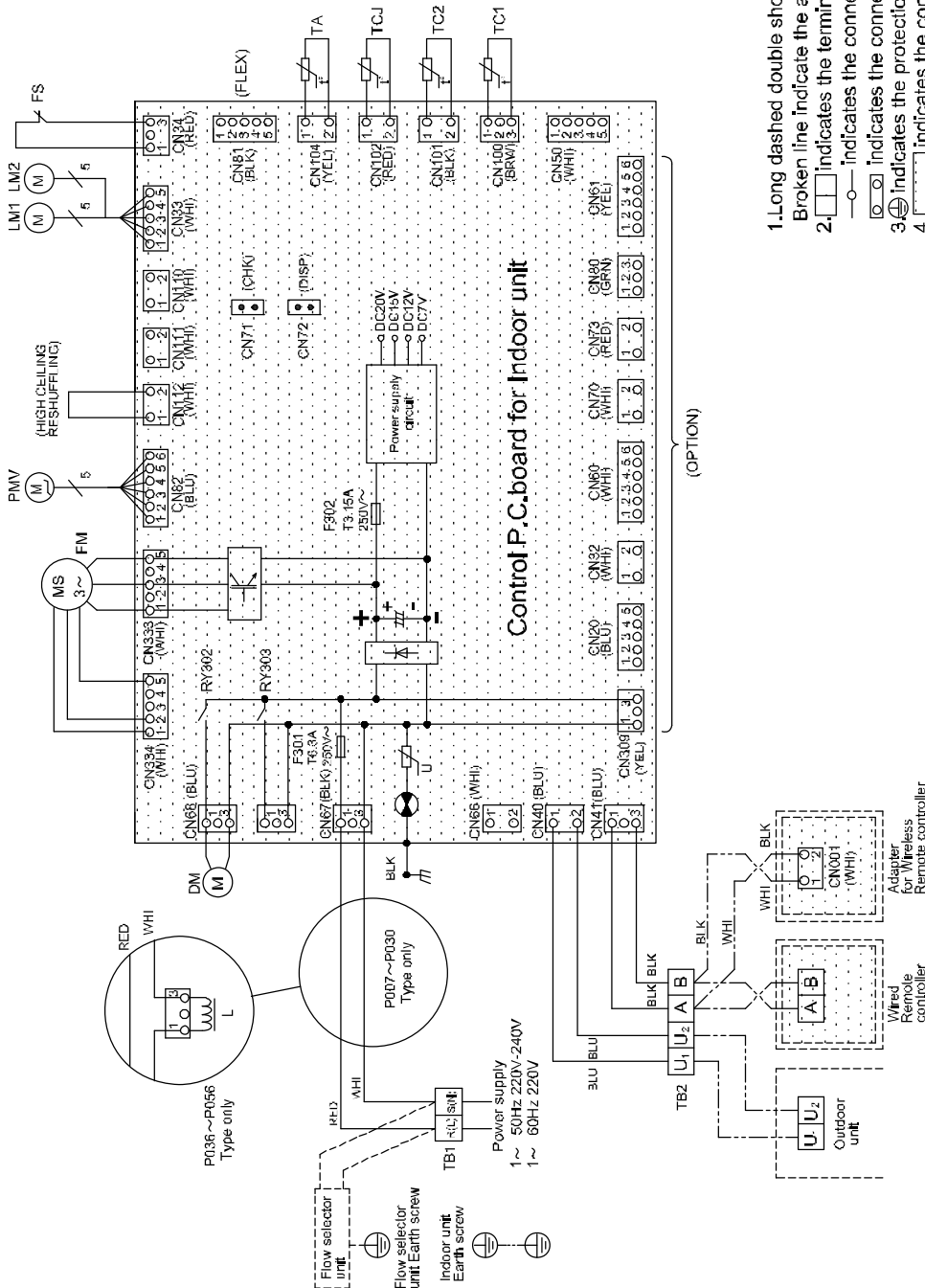


3. Wiring diagram

MMU-AP0072WH, AP0092WH, AP0122WH, AP0152WH, AP0182WH, AP0242WH, AP0272WH, AP0302WH, AP0362WH, AP0482WH, AP0562WH

Color Indication	
RED : RED	GRY : GRAY
WHI : WHITE	GRN : GREEN
YEL : YELLOW	BRW : BROWN
BLU : BLUE	BLK : BLACK

Symbol	Parts name
CN**	Connector
DM	Drain pump motor
F301,302	Fuse
FM	Fan Motor
FS	Float Switch
LM1,2	Lower Motor
PMV	Pulse Motor Valve
L	Resistor
RY302,303	Relay
TA	Indoor temp sensor
TB1,2	Terminal Block
TC1,TC2,TCJ	Temp sensor

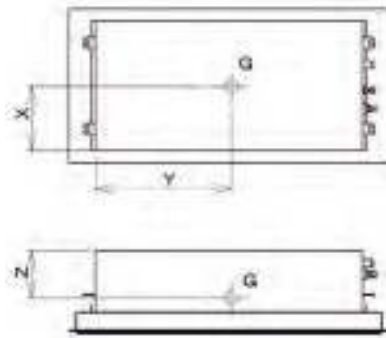


1. Long dashed double short dashed line indicate the wiring site.
2. Broken line indicate the accessories.
3. □ indicates the terminal block.
4. ○ indicates the connector on the terminal.
5. ⊕ indicates the connector on the control P.C. board.
6. ⊕ indicates the protection ground.
7. □ indicates the control P.C. board.



4. Center of Gravity

Model name	X(mm)	Y(mm)	Z(mm)	Total weight(kg)	
				Main unit	Ceiling panel
MMU-AP0072WH	280	435	162	19	10
MMU-AP0092WH					
MMU-AP0122WH					
MMU-AP0152WH					
MMU-AP0182WH	285	600	205	26	14
MMU-AP0242WH					
MMU-AP0272WH					
MMU-AP0302WH		835	175	36	
MMU-AP0362WH					
MMU-AP0482WH					
MMU-AP0562WH					



5. Electrical current characteristics

2-way Air Discharge Cassette Type

	Model	Normal Voltage (V-Ph-Hz)	Voltage Range		Fan Motor		Power Supply	
			Min	Max	kW	FLA	MCA	MOCP
50Hz	MMU-AP0072WH	230-1-50	198	264	0.020	0.32	0.40	15
	MMU-AP0092WH	230-1-50	198	264	0.020	0.32	0.40	15
	MMU-AP0122WH	230-1-50	198	264	0.020	0.32	0.40	15
	MMU-AP0152WH	230-1-50	198	264	0.020	0.32	0.40	15
	MMU-AP0182WH	230-1-50	198	264	0.030	0.70	0.88	15
	MMU-AP0242WH	230-1-50	198	264	0.040	0.81	1.01	15
	MMU-AP0272WH	230-1-50	198	264	0.040	0.81	1.01	15
	MMU-AP0302WH	230-1-50	198	264	0.050	0.81	1.01	15
	MMU-AP0362WH	230-1-50	198	264	0.070	0.87	1.09	15
	MMU-AP0485WH	230-1-50	198	264	0.070	0.87	1.09	15
	MMU-AP0562WH	230-1-50	198	264	0.070	0.87	1.09	15



6. Sensible capacity table

2-way cassette type 2series (MMU-AP***2WH)

TC : Total capacity [kW] SHC : Sensible capacity [kW]

unit size	outdoor air temp. °CDB	indoor air temp.													
		14.0°CWB 20°CDB		16.0°CWB 23°CDB		18.0°CWB 26°CDB		19.0°CWB 27°CDB		20.0°CWB 28°CDB		22.0°CWB 30°CDB		24.0°CWB 32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
007	10.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	12.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	14.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	16.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	18.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	20.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	21.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	23.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	25.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	27.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	29.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	31.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	33.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
	35.0	1.8	1.4	2.0	1.5	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6	2.5	1.6
37.0	1.7	1.4	1.9	1.5	2.1	1.6	2.1	1.6	2.2	1.6	2.3	1.5	2.4	1.5	
39.0	1.7	1.3	1.9	1.4	2.0	1.5	2.1	1.5	2.1	1.5	2.3	1.5	2.4	1.5	
009	10.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	12.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	14.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	16.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	18.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	20.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	21.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	23.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	25.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	27.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	29.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	31.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	33.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
	35.0	2.3	1.8	2.5	1.9	2.7	2.0	2.8	2.0	2.9	2.0	3.1	2.0	3.2	2.0
37.0	2.2	1.7	2.5	1.8	2.6	2.0	2.7	2.0	2.8	2.0	3.0	1.9	3.1	1.9	
39.0	2.2	1.7	2.4	1.8	2.6	1.9	2.6	1.9	2.7	1.9	2.9	1.9	3.0	1.8	
012	10.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	12.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	14.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	16.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	18.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	20.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	21.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	23.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	25.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	27.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	29.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	31.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	33.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	35.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
37.0	2.9	2.2	3.2	2.3	3.4	2.4	3.5	2.4	3.6	2.4	3.8	2.4	4.0	2.4	
39.0	2.8	2.1	3.1	2.2	3.3	2.4	3.4	2.4	3.5	2.4	3.7	2.3	3.9	2.3	
015	10.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	12.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	14.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	16.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	18.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	20.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	21.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	23.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	25.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	27.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	29.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	31.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	33.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
	35.0	3.7	2.7	4.1	2.9	4.4	3.1	4.5	3.1	4.6	3.1	4.9	3.0	5.1	3.0
37.0	3.6	2.6	4.0	2.8	4.2	3.0	4.4	3.0	4.5	3.0	4.7	2.9	5.0	2.9	
39.0	3.5	2.6	3.8	2.7	4.1	2.9	4.2	2.9	4.4	2.9	4.6	2.9	4.8	2.8	



2-way cassette type 2series (MMU-AP***2WH)

TC : Total capacity [kW]

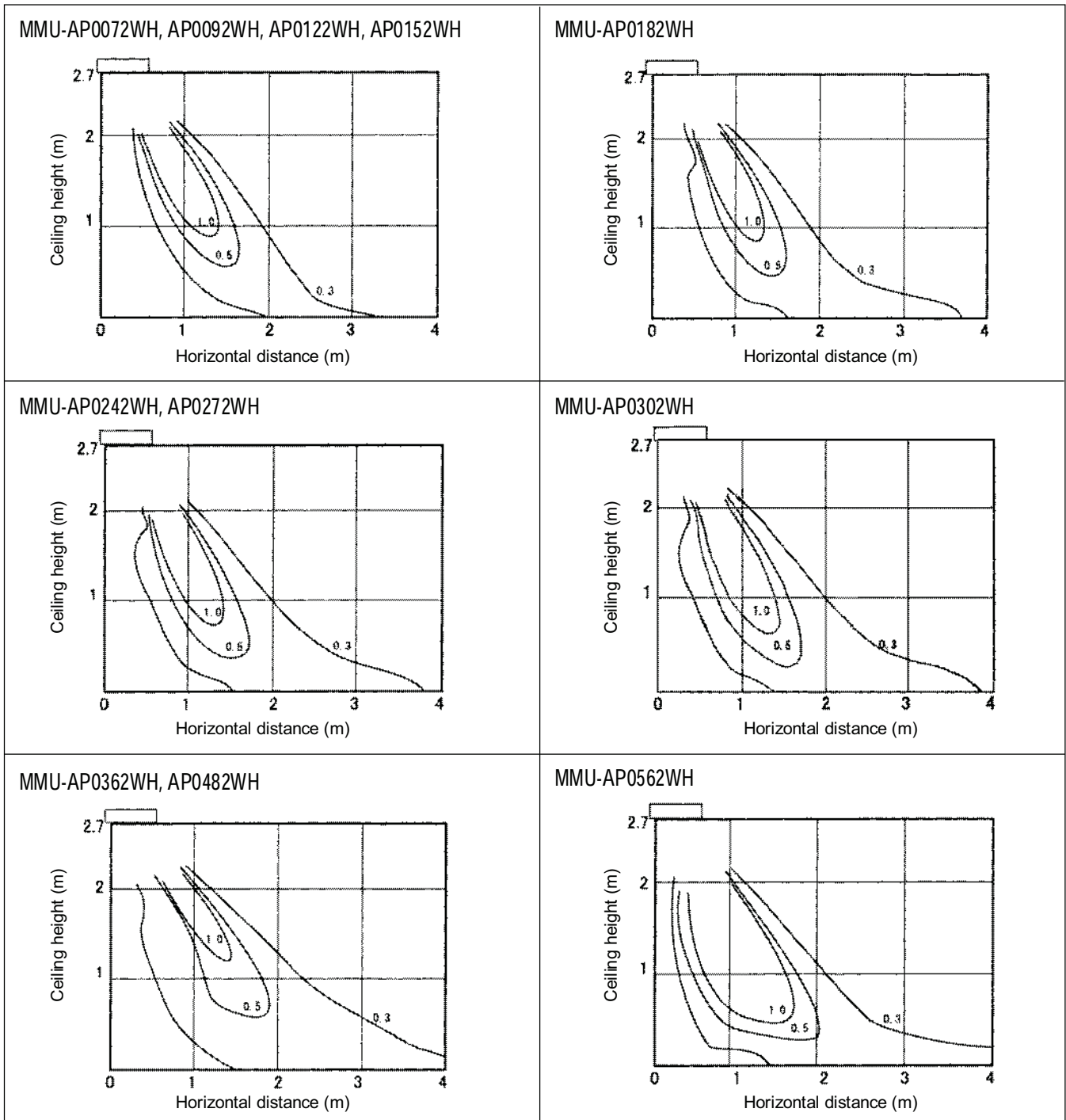
SHC : Sensible capacity [kW]

unit size	outdoor air temp. °CDB	indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
018	10.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	12.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	14.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	16.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	18.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	20.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	21.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	23.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	25.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	27.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	29.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	31.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	33.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
	35.0	4.6	3.5	5.1	3.7	5.4	3.9	5.6	3.9	5.8	3.9	6.1	3.9	6.4	3.8
37.0	4.5	3.4	4.9	3.6	5.3	3.8	5.4	3.8	5.6	3.8	5.9	3.8	6.2	3.7	
39.0	4.3	3.3	4.8	3.5	5.1	3.7	5.3	3.7	5.4	3.7	5.7	3.7	6.0	3.6	
024	10.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	12.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	14.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	16.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	18.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	20.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	21.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	23.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	25.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	27.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	29.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	31.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	33.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
	35.0	5.8	4.3	6.4	4.6	6.9	4.8	7.1	4.8	7.3	4.8	7.7	4.8	8.1	4.7
37.0	5.6	4.1	6.2	4.4	6.7	4.7	6.9	4.7	7.1	4.7	7.5	4.6	7.8	4.5	
39.0	5.5	4.0	6.1	4.3	6.5	4.6	6.7	4.5	6.9	4.5	7.3	4.5	7.6	4.4	
027	10.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	12.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	14.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	16.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	18.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	20.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	21.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	23.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	25.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	27.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	29.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	31.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	33.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
	35.0	6.6	4.7	7.3	5.0	7.8	5.3	8.0	5.3	8.2	5.3	8.7	5.2	9.1	5.1
37.0	6.4	4.5	7.0	4.8	7.5	5.1	7.7	5.1	8.0	5.1	8.4	5.1	8.8	4.9	
39.0	6.2	4.4	6.8	4.7	7.3	5.0	7.5	5.0	7.8	5.0	8.2	4.9	8.6	4.8	
030	10.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	12.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	14.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	16.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	18.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	20.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	21.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	23.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	25.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	27.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	29.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	31.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	33.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
	35.0	7.4	5.0	8.2	5.4	8.7	5.7	9.0	5.7	9.3	5.7	9.8	5.6	10.3	5.5
37.0	7.2	4.9	7.9	5.2	8.5	5.5	8.7	5.5	9.0	5.5	9.5	5.4	9.9	5.3	
39.0	7.0	4.7	7.7	5.0	8.2	5.4	8.5	5.3	8.7	5.3	9.2	5.3	9.7	5.2	



7. Air throw distance chart

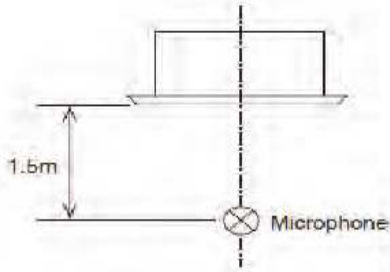
Unit: [m/s]



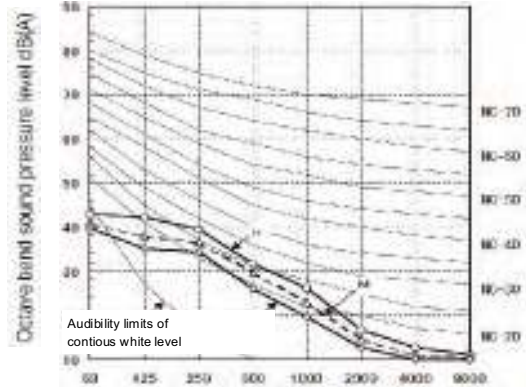


8.Sound characteristics (NC-Curve)

MMU-AP0072WH, AP0092WH, 0122WH



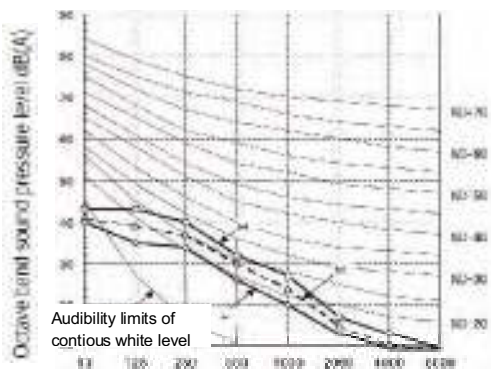
Sound pressure level (dB(A))	H - M - L
	34 - 32 - 30



Octave band center frequency(Hz)

MMU-AP0152WH

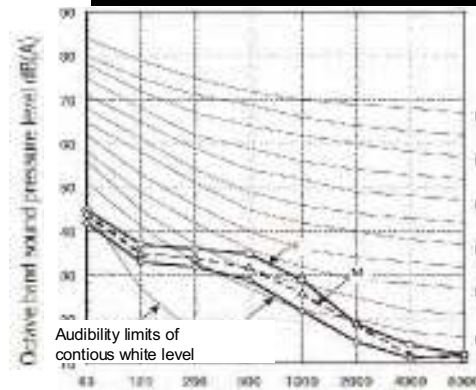
Sound pressure level (dB(A))	H - M - L
	35 - 33 - 30



Octave band center frequency(Hz)

MMU-AP0182WH

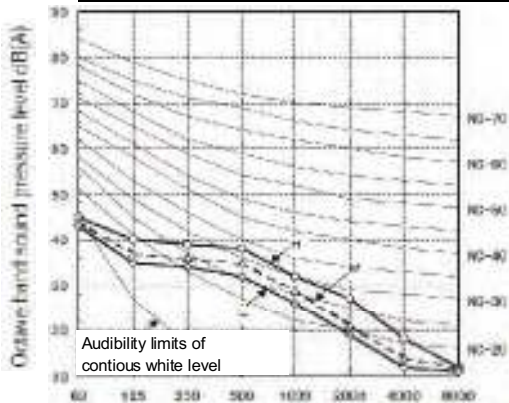
Sound pressure level (dB(A))	H - M - L
	35 - 33 - 30



Octave band center frequency(Hz)

MMU-AP0242WH, AP0272WH

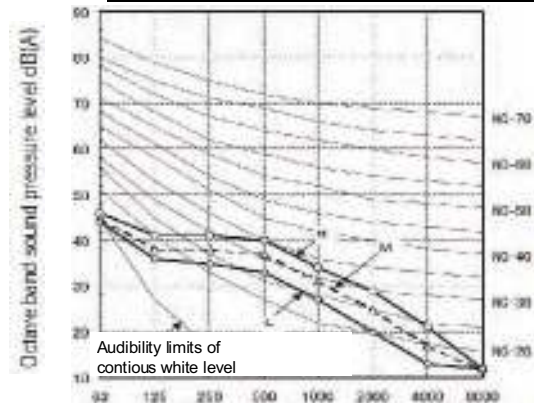
Sound pressure level (dB(A))	H - M - L
	38 - 35 - 33



Octave band center frequency(Hz)

MMU-AP0302WH

Sound pressure level (dB(A))	H - M - L
	40 - 37 - 34

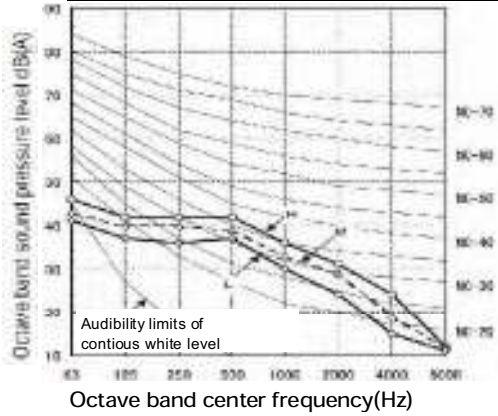


Octave band center frequency(Hz)



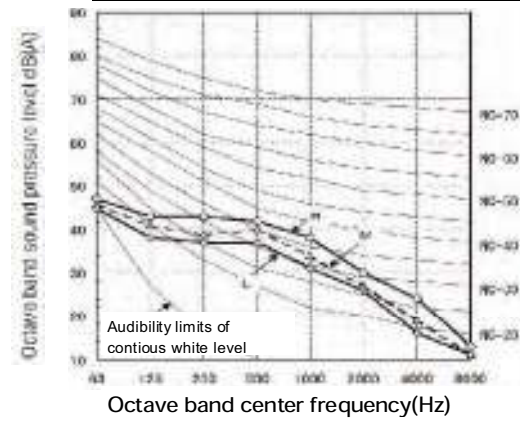
MMU-AP0362WH

Sound pressure level (dB(A))	H - M - L
	42 - 39 - 36



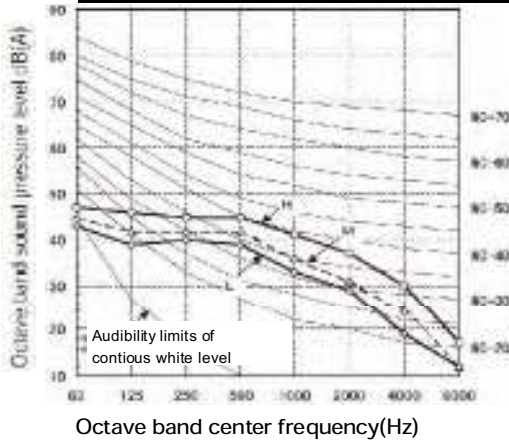
MMU-AP0482WH

Sound pressure level (dB(A))	H - M - L
	43 - 40 - 37



MMU-AP0562WH

Sound pressure level (dB(A))	H - M - L
	46 - 42 - 39





9. Fresh air intake (Design guide)

Usage

Fresh air intake by setting Auxiliary fresh air flange(TCB-FF151US-E) .

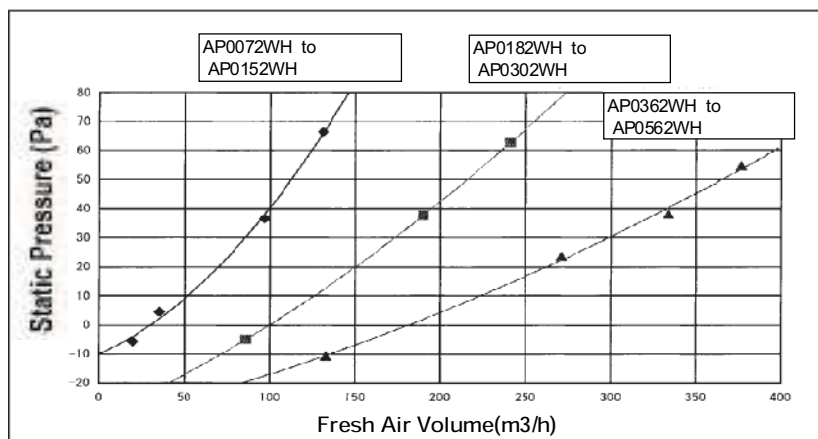
Caution

1. Be sure to provide air return.
2. The fresh air shall be treated by heat reclaim ventilator or the like.
3. Recommended treated air temperature is 12C to 30C.
4. Be sure to decide the fresh air volume so that mixed suction air with fresh air keep operating temperature. Provide an air filter in fresh air way to prevent sucking dust.
5. Be sure to insulate the fresh air duct
In order to accelerate starting up in heating mode, implement pre-heating operation by cutting off fresh air intake.
6. Be sure to connect wiring of inter-lock between Air to air heat exchanger unit and fan of indoor unit.

Characteristics between air volume of branching duct and static pressure

Up to 20% fresh air intake ratio is available by using the booster fan.

fresh air intake ratio = (fresh air volume) / (total air volume) X 100 %

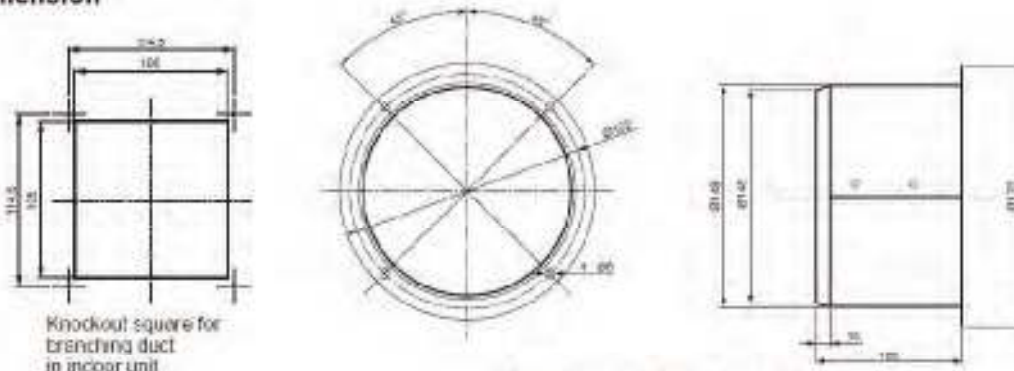


Inter - lock circuit

1. Connect the driving relay of the duct fan (DC 12 V) between 1 and 6 on the indoor P.C.board.
Part indicated with a bold line is the connecting circuit.
After installation, implement a trial operation to check that the duct fan of the indoor unit start / stop simultaneously.
(Implement the trial operation following to the installation manual of the indoor unit.)
Rated current of the relay for duct fan shall be up to 75 mA .



Dimension



Design sample of branching duct flange



10. Accessories

Parts name	Model name	Applied model	Notes	Remarks
Ceiling panel	RBC-UW283PG(W)-E	MMU-AP0072WH to 0152WH	Required accessory	
	RBC-UW803PG(W)-E	MMU-AP0182WH to 0302WH		
	RBC-UW1403PG(W)-E	MMU-AP0362WH to 0562WH		
Super long life filter	TBC-LF283UW-E	MMU-AP0072WH to 0152WH	Dust collecting effect : 50% (Weight method)	Use with TBC-FC283UW-E
	TBC-LF803UW-E	MMU-AP0182WH to 0302WH		Use with TBC-FC803UW-E
	TBC-LF1403UW-E	MMU-AP0362WH to 0562WH		Use with TBC-FC1403UW-E
Filter chamber	TBC-FC283UW-E	MMU-AP0072WH to 0152WH	For super long life filter	
	TBC-FC803UW-E	MMU-AP0182WH to 0302WH		
	TBC-FC1403UW-E	MMU-AP0362WH to 0562WH		
Auxiliary fresh air flange	TBC-FF151US-E	MMU-AP0072WH to 0562WH	For fresh air intake by using the knockout hole of indoor unit.	

