

2.12 Floor Standing Concealed Type

Floor Standing Concealed Type

MML-AP0071BH / MML-AP0091BH
MML-AP0121BH / MML-AP0151BH
MML-AP0181BH / MML-AP0241BH



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1. Specifications

Floor Standing Concealed Type

Model name		MML-	AP0071BH	AP0091BH	AP0121BH	AP0151BH	AP0181BH	AP0241BH	
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	
Electrical characteristics	Power supply	1 phase 50Hz 230V (220 – 240V) (Separate power supply for indoor units is required.)							
	Running current	(A)	0.25		0.45		0.46		
	Power consumption	(kW)	0.056		0.090		0.095		
	Power factor	(%)	97		87		90		
	Starting current	(A)	0.60		0.80		1.00		
Appearance		Zinc hot dipping steel plate							
Outer dimension	Height x Width x Depth	(mm)	600 x 745 x 220			600 x 1,045 x 220			
Total weight		(kg)	21			29			
Heat exchanger		Finned tube							
Soundproof/Heat-insulating material		Non-flammable insulation							
Fan unit	Fan	Centrifugal fan							
	Standard air flow (High/Mid./Low)	(m ³ /h)	460/400/300			740/600/490		950/790/640	
	Motor output	(W)	19			70			
	Static pressure range	(kPa)	0						
Air filter		Standard filter (Simple filter)							
Controller		Remote controller							
Connecting pipe	Gas side	(mm)	ø 9.5			ø 12.7		ø 15.9	
	Liquid side	(mm)	ø 6.4					ø 9.5	
	Drain port (Nominal dia. mm)	20 (One side of male screw)							
Sound pressure level(Note 2)(High/Mid./Low)(dB(A))		36 (34/32)					42 (37/33)		

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.

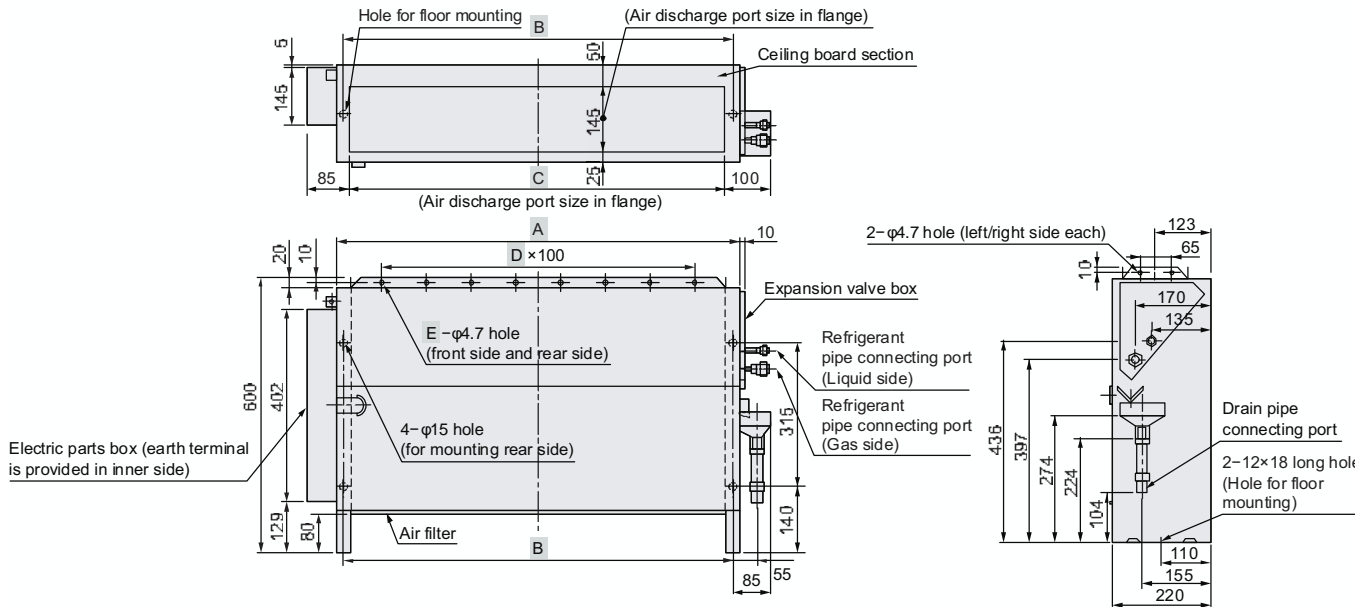
Note 2 : The sound levels are measured in an anechoic chamber in accordance with JIS B8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

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

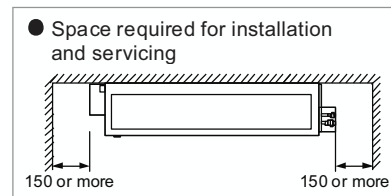


2. Dimension

MML-AP0071BH, AP091BH, AP0121BH, AP0151BH, AP0181BH, AP0241BH



Model	MML-	A	B	C	D	E
AP0071BH to AP0121BH		610	580	550	4	5
AP0151BH to AP0241BH		910	880	850	7	8

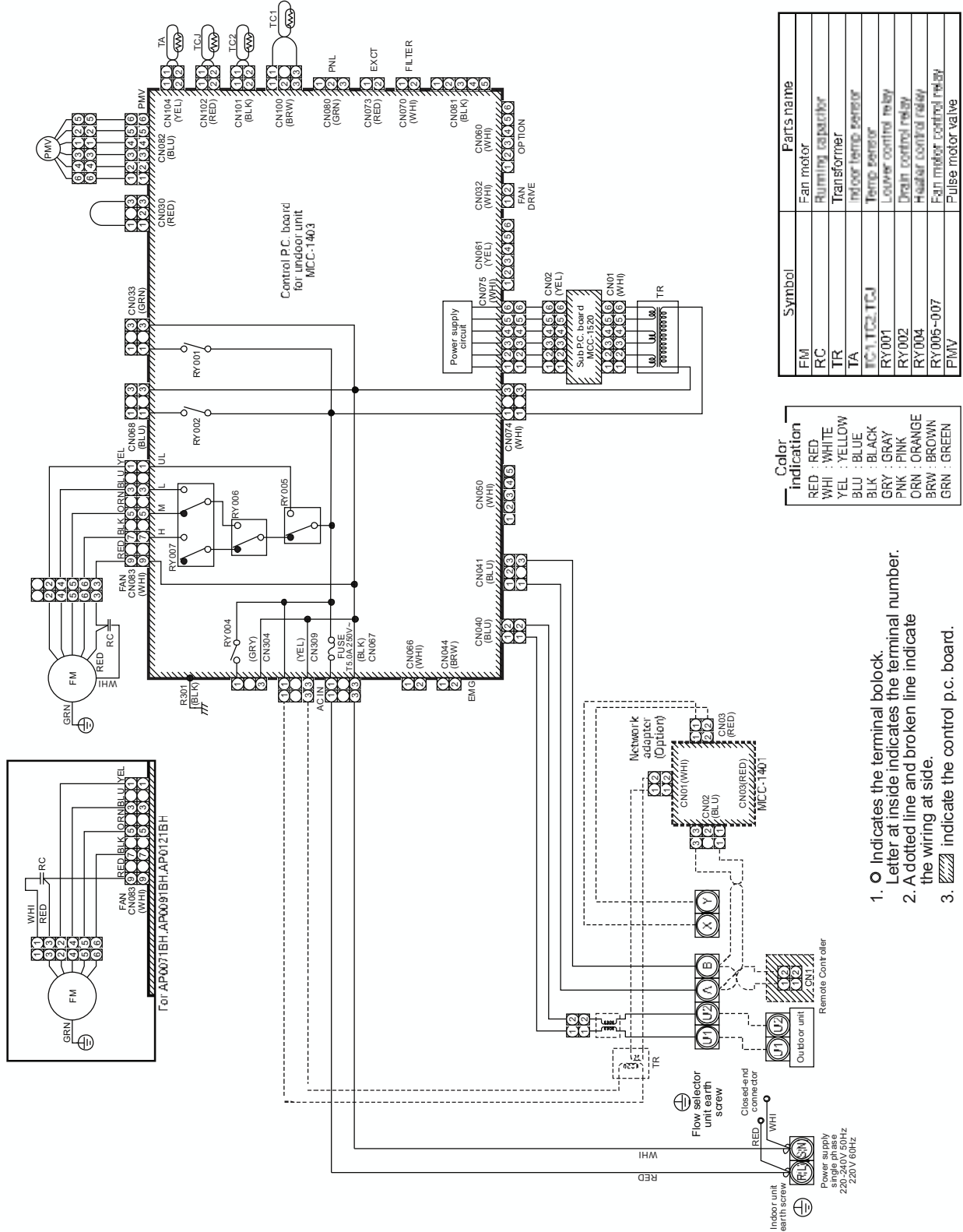


(Unit: mm)



3. Wiring diagram

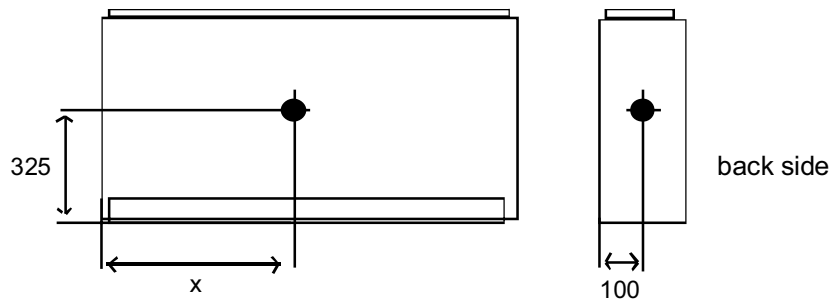
MML-AP0071BH, AP0091BH, AP0121BH, AP0151BH, AP0181BH, AP0241BH





4. Center of gravity

Model name	X (mm)	Total weight(kg)
MML-AP0071BH	340	21
MML-AP0091BH		
MML-AP0121BH		
MML-AP0151BH	470	29
MML-AP0181BH		
MML-AP0241BH		



5. Electrical current characteristics

Type	Model	Nominal Voltage (V-Ph-Hz)	Voltage Range		Fan Motor		Power Supply	
			Min	Max	kW	FLA	MCA	MOCP
Floor Standing Concealed Type	MML-AP 0091 BH	230-1-50	198	264	0.019	0.29	0.36	15
	MML-AP 0121 BH	230-1-50	198	264	0.019	0.29	0.36	15
	MML-AP 0151 BH	230-1-50	198	264	0.070	0.52	0.65	15
	MML-AP 0181 BH	230-1-50	198	264	0.070	0.52	0.65	15
	MML-AP 0241 BH	230-1-50	198	264	0.070	0.53	0.66	15

MCA : Minimum Circuit Amps

FLA : Full Load Amps

MOCP : Maximum Overcurrent Protection (Amps)

kW : Fan Motor Rated Output (kW)



6. Sensible capacity table

Floor Standing Concealed Type (MML-AP*1BH)** 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
007	10.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	12.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	14.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	16.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	18.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	20.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	21.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	23.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	25.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	27.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	29.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	31.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	33.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
	35.0	1.8	1.2	2.0	1.3	2.1	1.4	2.2	1.4	2.3	1.4	2.4	1.4	2.5	1.4
37.0	1.7	1.2	1.9	1.3	2.1	1.4	2.1	1.4	2.2	1.4	2.3	1.3	2.4	1.3	
39.0	1.7	1.2	1.9	1.2	2.0	1.3	2.1	1.3	2.1	1.3	2.3	1.3	2.4	1.3	
009	10.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	12.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	14.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	16.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	18.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	20.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	21.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	23.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	25.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	27.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	29.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	31.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	33.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
	35.0	2.3	1.4	2.5	1.5	2.7	1.6	2.8	1.6	2.9	1.6	3.1	1.6	3.2	1.5
37.0	2.2	1.4	2.5	1.5	2.6	1.6	2.7	1.5	2.8	1.5	3.0	1.5	3.1	1.5	
39.0	2.2	1.3	2.4	1.4	2.6	1.5	2.6	1.5	2.7	1.5	2.9	1.5	3.0	1.5	
012	10.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	12.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	14.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	16.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	18.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	20.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	21.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	23.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	25.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	27.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	29.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	31.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	33.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
	35.0	3.0	2.0	3.3	2.1	3.5	2.2	3.6	2.2	3.7	2.2	3.9	2.2	4.1	2.1
37.0	2.9	1.9	3.2	2.0	3.4	2.1	3.5	2.1	3.6	2.1	3.8	2.1	4.0	2.1	
39.0	2.8	1.8	3.1	2.0	3.3	2.1	3.4	2.1	3.5	2.1	3.7	2.1	3.9	2.0	
015	10.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	12.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	14.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	16.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	18.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	20.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	21.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	23.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	25.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	27.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	29.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	31.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	33.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
	35.0	3.7	2.5	4.1	2.7	4.4	2.8	4.5	2.8	4.6	2.8	4.9	2.8	5.1	2.7
37.0	3.6	2.4	4.0	2.6	4.2	2.7	4.4	2.7	4.5	2.7	4.7	2.7	5.0	2.6	
39.0	3.5	2.3	3.8	2.5	4.1	2.7	4.2	2.6	4.4	2.6	4.6	2.6	4.8	2.6	



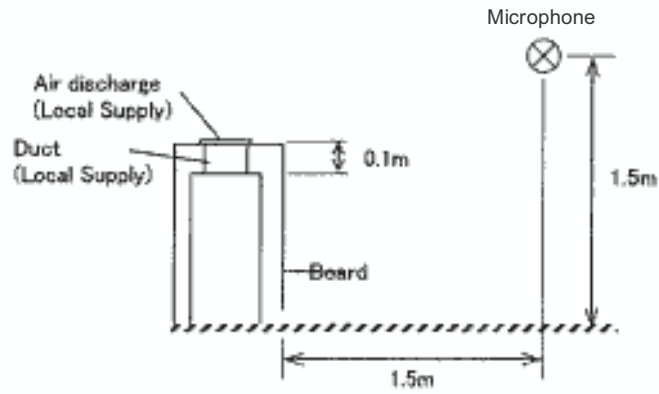
Floor Standing Concealed Type (MML-AP*1BH)** TC : Total capacity [kW] SHC : Sensible capacity [kW]

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	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	12.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	14.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	16.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	18.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	20.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	21.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	23.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	25.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	27.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	29.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	31.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	33.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
	35.0	4.6	3.1	5.1	3.3	5.4	3.5	5.6	3.5	5.8	3.5	6.1	3.5	6.4	3.4
37.0	4.5	3.0	4.9	3.2	5.3	3.4	5.4	3.4	5.6	3.4	5.9	3.4	6.2	3.3	
39.0	4.3	2.9	4.8	3.1	5.1	3.3	5.3	3.3	5.4	3.3	5.7	3.3	6.0	3.2	
024	10.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	12.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	14.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	16.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	18.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	20.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	21.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	23.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	25.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	27.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	29.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	31.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	33.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
	35.0	5.8	4.0	6.4	4.2	6.9	4.5	7.1	4.5	7.3	4.5	7.7	4.5	8.1	4.4
37.0	5.6	3.9	6.2	4.1	6.7	4.4	6.9	4.4	7.1	4.4	7.5	4.3	7.8	4.2	
39.0	5.5	3.8	6.1	4.0	6.5	4.2	6.7	4.2	6.9	4.2	7.3	4.2	7.6	4.1	



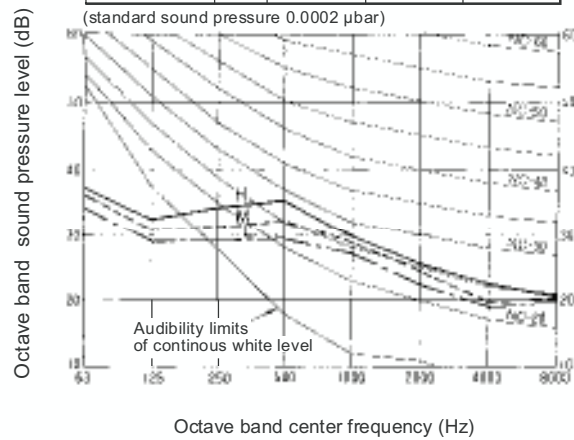
7. Sound level data (NC CURVE)

Sound level values shown are based on a measurement in a non resonant room.



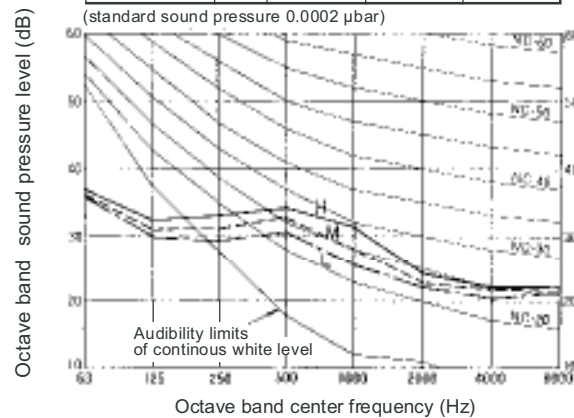
MML-AP0071BH, AP0091BH, AP0121BH

Fan Tap		H	M	L
Overall level (dB)	A	36.0	34.0	32.0
	C	41.7	40.2	37.9



MML-AP0151BH, AP0181BH

Fan Tap		H	M	L
Overall level (dB)	A	36.0	34.0	32.0
	C	41.4	40.0	38.8





MML-AP0241BH

50Hz

Fan Tap		H	M	L
Overall level (dB)	A	42.0	37.0	33.0
	C	46.4	41.0	37.7

(standard sound pressure 0.0002 μbar)

