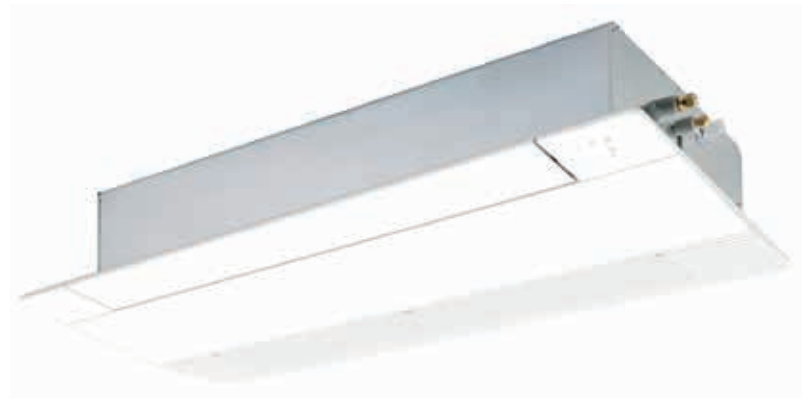


1-way Cassette Type

MMU-UP0031YHP-E/TR
MMU-UP0051YHP-E/TR
MMU-UP0071YHP-E/TR
MMU-UP0091YHP-E/TR
MMU-UP0121YHP-E/TR



Contents

1. Specification
2. Dimensions
3. Center of gravity
4. Piping diagram
5. Wiring diagram
6. Electrical characteristics
7. Sensible capacity table
8. Air flow distance chart
9. Sound data
- 10 Accessories

1. Specifications

Model name			MMU-	UP0031YHP-E/TR	UP0051YHP-E/TR	UP0071YHP-E/TR	UP0091YHP-E/TR	UP0121YHP-E/TR	
Power supply			1 ph 50Hz 220-240V (Separate power supply for indoor units is required.)						
Cooling capacity (*1)	(kW)		0.9	1.7	2.2	2.8	3.6		
Heating capacity (*1)	(kW)		1.3	1.9	2.5	3.2	4.0		
Running current	(A)		0.15	0.15	0.18	0.19	0.20		
Power consumption	(kW)		15	15	17	18	18		
FCU dimension	Unit	Height (mm)	150						
		Width (mm)	990						
		Depth (mm)	450						
	Panel	Height (mm)	30						
		Width (mm)	1220						
		Depth (mm)	530						
Total weight	Unit	(kg)	14						
	Panel	(kg)	4						
Heat exchangere			Finned tube						
Soundproof / Heat-insulation material			Non-flammable insulation						
Air flow volume	Indoor unit (H/M/L)	(m3/h)	480/370/270	480/370/270	500/390/270	520/410/290	540/420/290		
Sound pressure	Indoor unit (H/M/L)	dB(A)	37/33/25	37/33/25	38/34/25	39/35/26	40/36/26		
Fan			Cross Flow Fan						
Motor output			(W)	30.0					
Conecting pipe	Gas side	(mm)	φ9.52						
	Liquid side	(mm)	φ6.35						
	Drain pipe	(mm)	25						

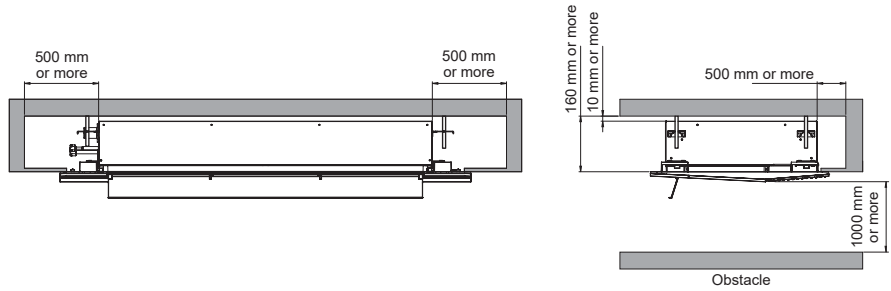
(*1) Rated testing conditions

Cooling : Indoor air tempreature 27 °C DB/ 19°C WB, Outdoor 35 °C DB

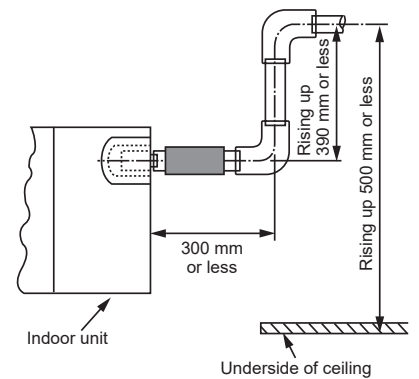
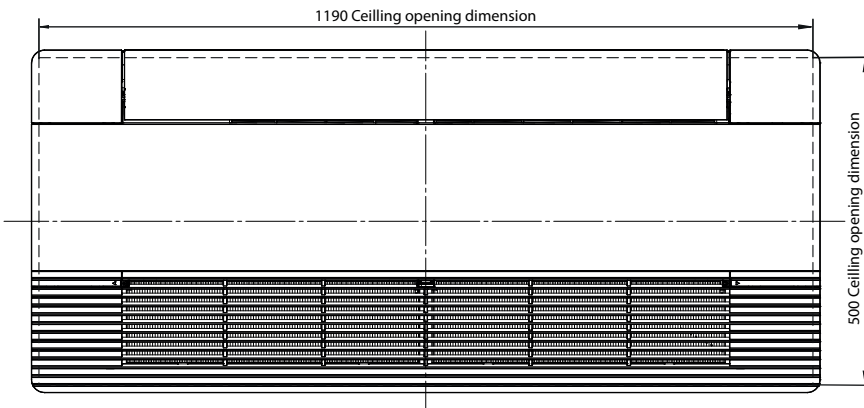
Heating : Indoor air tempreature 20 °C DB, Outdoor 7°C DB / 6°C WB

2. Dimension

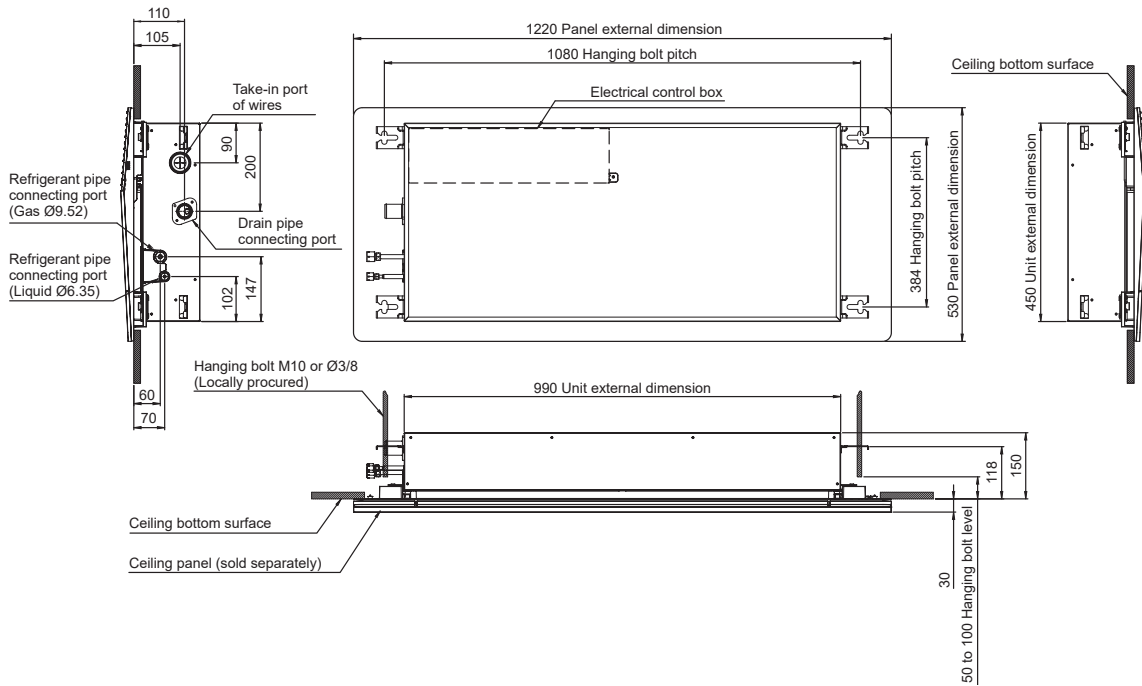
MMU-UP0031YHP*/ MMU-UP0051YHP*/ MMU-UP0071YHP*/ MMU-UP0091YHP*/ MMU-UP0121YHP*



The space that is necessary for equipping and service

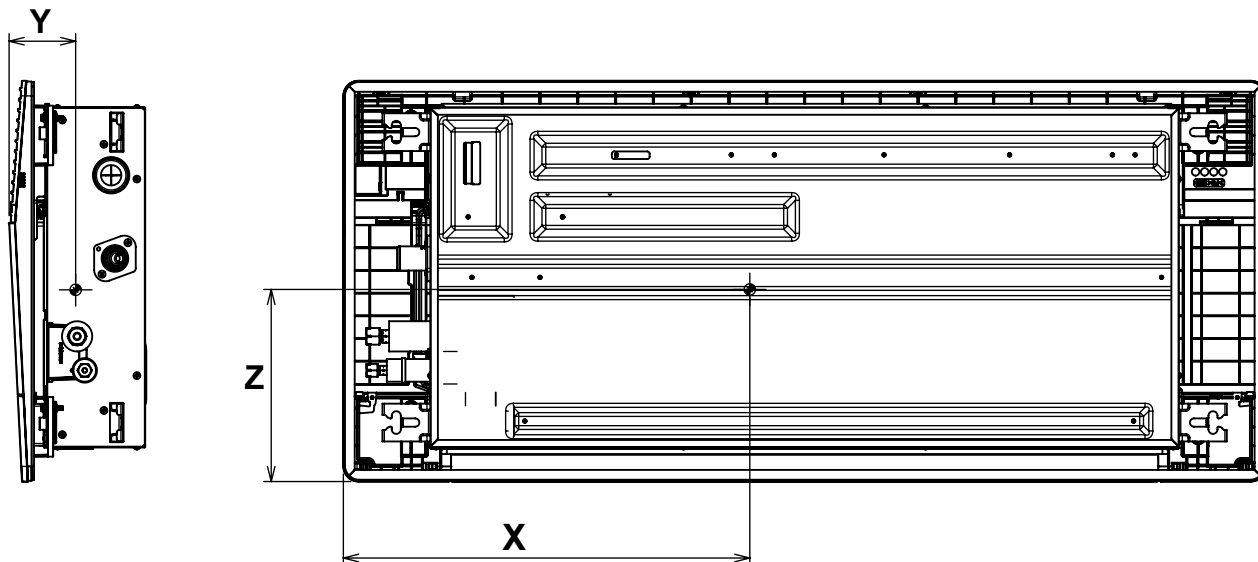


Drain upstanding size



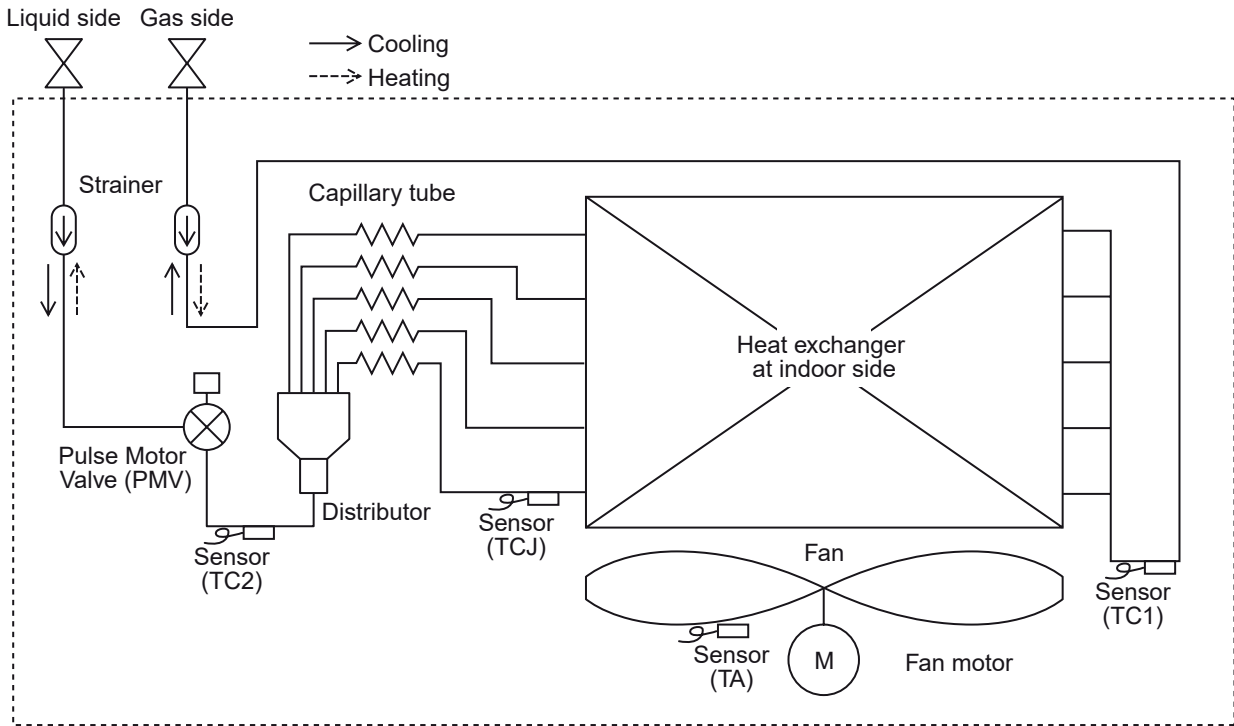
3. Center of gravity

Model name	X (mm)	Y (mm)	Z (mm)	Total weight (kg)
MMU-UP0031YHP-E/TR	537.5	88	254	14
MMU-UP0051YHP-E/TR				
MMU-UP0071YHP-E/TR				
MMU-UP0091YHP-E/TR				
MMU-UP0121YHP-E/TR				



4. Piping diagram

MMU-UP0031YHP*/ MMU-UP0051YHP*/ MMU-UP0071YHP*/ MMU-UP0091YHP*/ MMU-UP0121YHP*

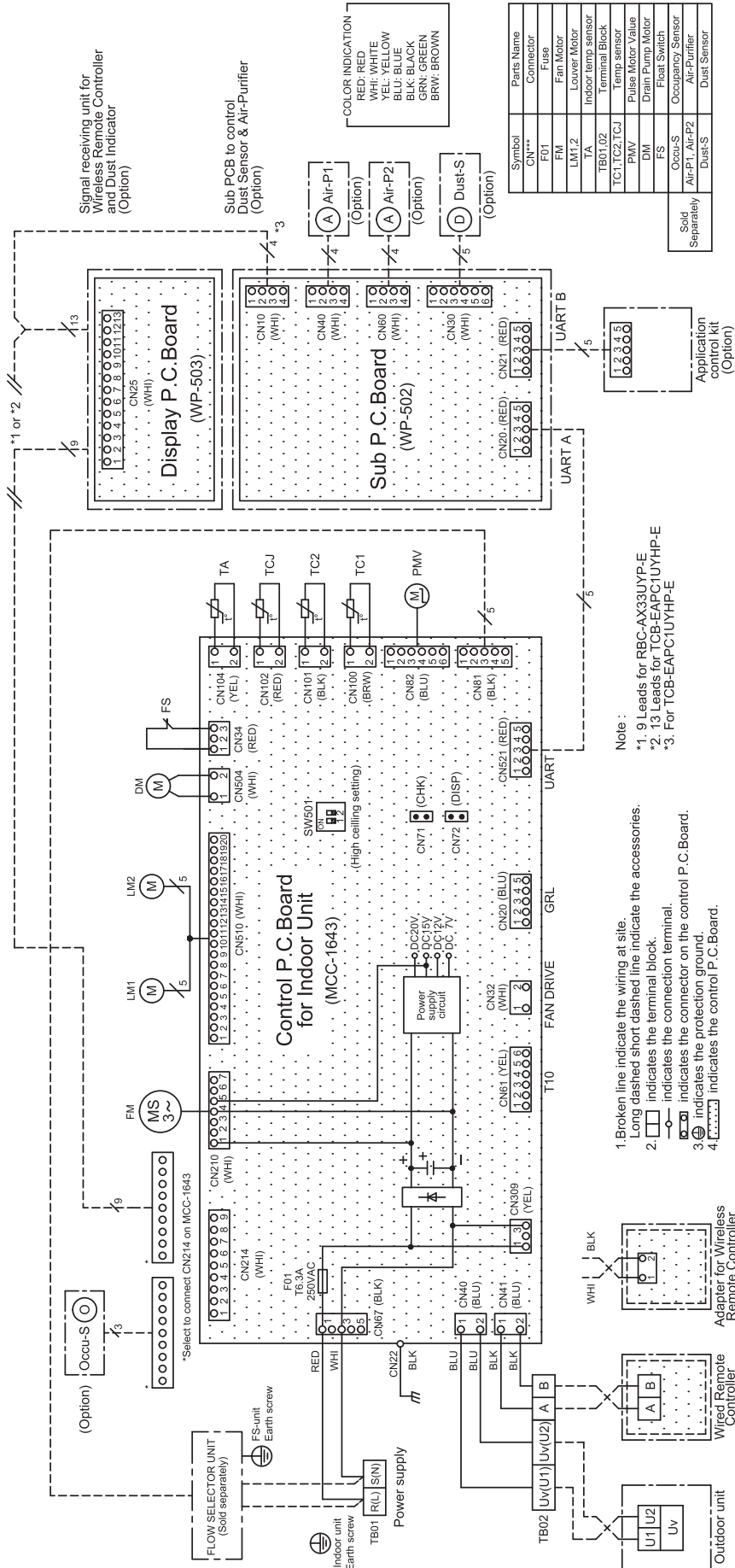


Explanation of functional parts in indoor unit

Functional part name		Functional outline
Pulse Motor Valve	PMV	(Connector CN82 (6P): Blue) 1) Controls superheat in cooling operation 2) Controls subcool in heating operation 3) Recovers refrigerant oil in cooling operation 4) Recovers refrigerant oil in heating operation
	Temp. Sensor	
	TA	(Connector CN104 (2P): Yellow) 1) Detects indoor suction temperature
	TC1	(Connector CN100 (3P): Brown) 1) Controls PMV superheat in cooling operation
	TC2	(Connector CN101 (2P): Black) 1) Controls PMV subcool in heating operation
	TCJ	(Connector CN102 (2P): Red) 1) Controls PMV superheat in cooling operation

5. Wiring diagram

MMU-UP0031YHP*/ MMU-UP0051YHP*/ MMU-UP0071YHP*/ MMU-UP0091YHP*/ MMU-UP0121YHP*



6. Electrical characteristics

1) 50Hz

Type	Model	Nominal Voltage	Voltage Range		Fan Motor		Power Supply	
		(V-Ph-Hz)	Min	Max	kW	FLA	MCA	MOCP
1-Way cassette	MMU-UP0031YHP-E/TR	230-1-50	198	264	0.030	0.32	0.40	15
	MMU-UP0051YHP-E/TR	230-1-50	198	264	0.030	0.32	0.40	15
	MMU-UP0071YHP-E/TR	230-1-50	198	264	0.030	0.32	0.40	15
	MMU-UP0091YHP-E/TR	230-1-50	198	264	0.030	0.32	0.40	15
	MMU-UP0121YHP-E/TR	230-1-50	198	264	0.030	0.32	0.40	15

MCA : Minimum Circuit Amps

FLA : Full Load Amps

MOCP : Maximum Overcurrent Protection (Amps)

kW : Fan Motor Outdoor (kW)

2) 60Hz

Type	Model	Nominal Voltage	Voltage Range		Fan Motor		Power Supply	
		(V-Ph-Hz)	Min	Max	kW	FLA	MCA	MOCP
1-Way cassette	MMU-UP0031YHP-E/TR	220-1-60	198	253	0.030	0.32	0.40	15
	MMU-UP0051YHP-E/TR	220-1-60	198	253	0.030	0.32	0.40	15
	MMU-UP0071YHP-E/TR	220-1-60	198	253	0.030	0.32	0.40	15
	MMU-UP0091YHP-E/TR	220-1-60	198	253	0.030	0.32	0.40	15
	MMU-UP0121YHP-E/TR	220-1-60	198	253	0.030	0.32	0.40	15

MCA : Minimum Circuit Amps

FLA : Full Load Amps

MOCP : Maximum Overcurrent Protection (Amps)

kW : Fan Motor Outdoor (kW)

7. Sensible capacity table

1Way cassette Type (MMU-UP__1YHP-E/TR)

Unit size	indoor air temp.														
	outdoor air temp.	14 °C WB		16 °C WB		18 °C WB		19 °C WB		20 °C WB		22 °C WB		24 °C WB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
003	10.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	12.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	14.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	16.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	18.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	20.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	21.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	23.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	25.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	27.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	29.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	31.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	33.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	35.0	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.7	0.9	0.7	1.0	0.7	1.0	0.6
	37.0	0.7	0.6	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.6	0.9	0.6	1.0	0.6
39.0	0.7	0.6	0.8	0.6	0.8	0.6	0.9	0.6	0.9	0.6	0.9	0.6	1.0	0.6	

Unit size	indoor air temp.														
	outdoor air temp.	14 °C WB		16 °C WB		18 °C WB		19 °C WB		20 °C WB		22 °C WB		24 °C WB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
005	10.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	12.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	14.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	16.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	18.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	20.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	21.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	23.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	25.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	27.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	29.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	31.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	33.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	35.0	1.4	1.3	1.5	1.4	1.6	1.5	1.7	1.5	1.8	1.5	1.9	1.5	1.9	1.5
	37.0	1.4	1.3	1.5	1.4	1.6	1.5	1.6	1.5	1.7	1.5	1.8	1.4	1.9	1.4
39.0	1.3	1.2	1.4	1.3	1.5	1.4	1.6	1.4	1.6	1.4	1.7	1.4	1.8	1.3	

Unit size	indoor air temp.														
	outdoor air temp.	14 °C WB		16 °C WB		18 °C WB		19 °C WB		20 °C WB		22 °C WB		24 °C WB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
007	10.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	12.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	14.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	16.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	18.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	20.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	21.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	23.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	25.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	27.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	29.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	31.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	33.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	35.0	1.8	1.5	2.0	1.6	2.1	1.7	2.2	1.7	2.3	1.7	2.4	1.7	2.5	1.6
	37.0	1.7	1.5	1.9	1.6	2.1	1.7	2.1	1.6	2.2	1.6	2.3	1.6	2.4	1.6
39.0	1.7	1.4	1.9	1.5	2.0	1.6	2.1	1.6	2.1	1.6	2.3	1.6	2.4	1.5	

TC : Total Capacity [kW]
 SHC : Sensible Heat Capacity [kW]

1Way cassette Type (MMU-UP__1YHP-E/TR)

Unit size	indoor air temp.														
	outdoor air temp.	14 °C WB		16 °C WB		18 °C WB		19 °C WB		20 °C WB		22 °C WB		24 °C WB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
	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	1.9
37.0	2.2	1.7	2.5	1.8	2.6	1.9	2.7	1.9	2.8	1.9	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	

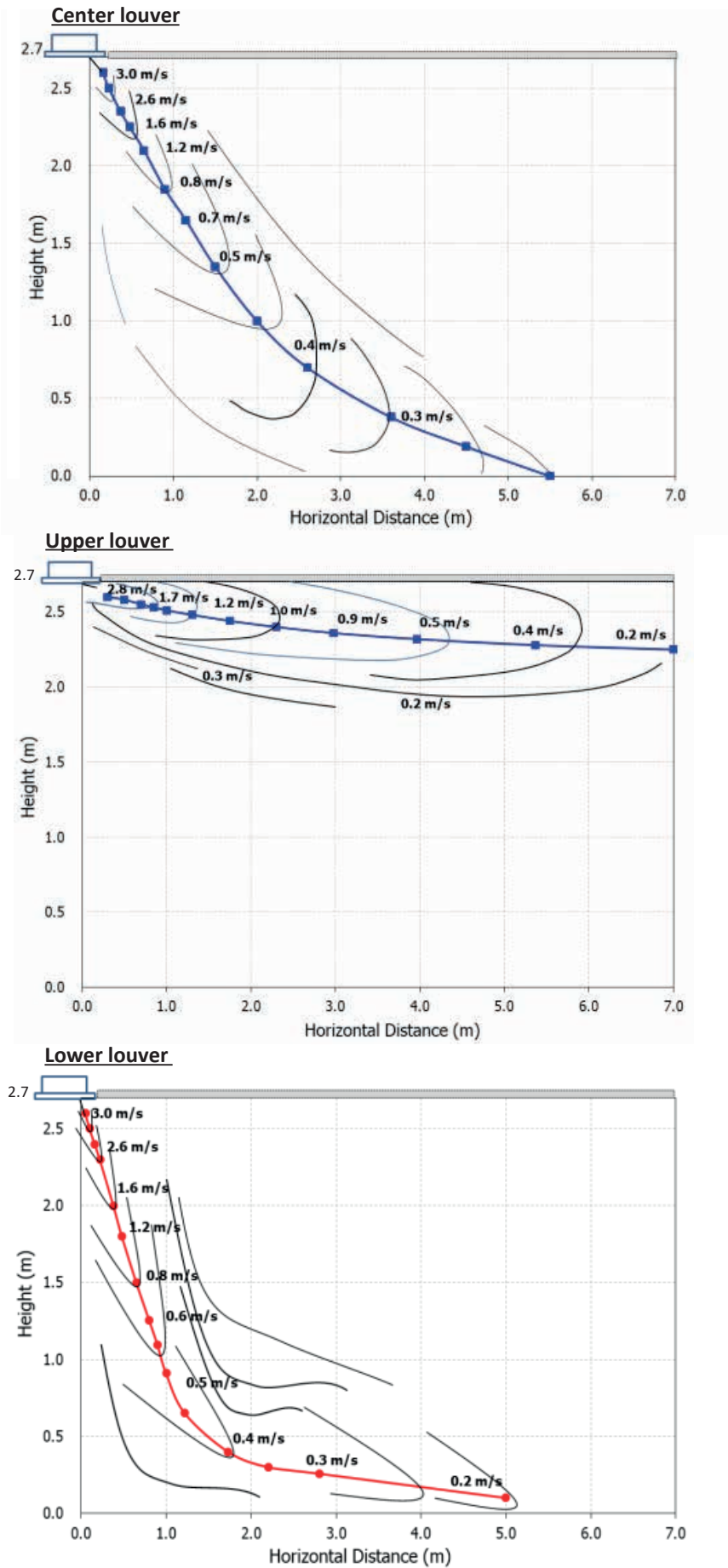
Unit size	indoor air temp.														
	outdoor air temp.	14 °C WB		16 °C WB		18 °C WB		19 °C WB		20 °C WB		22 °C WB		24 °C WB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
012	10.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	2.5	4.1	2.4
	12.0	3.0	2.2	3.3	2.4	3.5	2.5	3.6	2.5	3.7	2.5	3.9	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	2.1	3.2	2.3	3.4	2.4	3.5	2.4	3.6	2.4	3.8	2.4	4.0	2.3	
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	

TC : Total Capacity [kW]

SHC : Sensible Heat Capacity [kW]

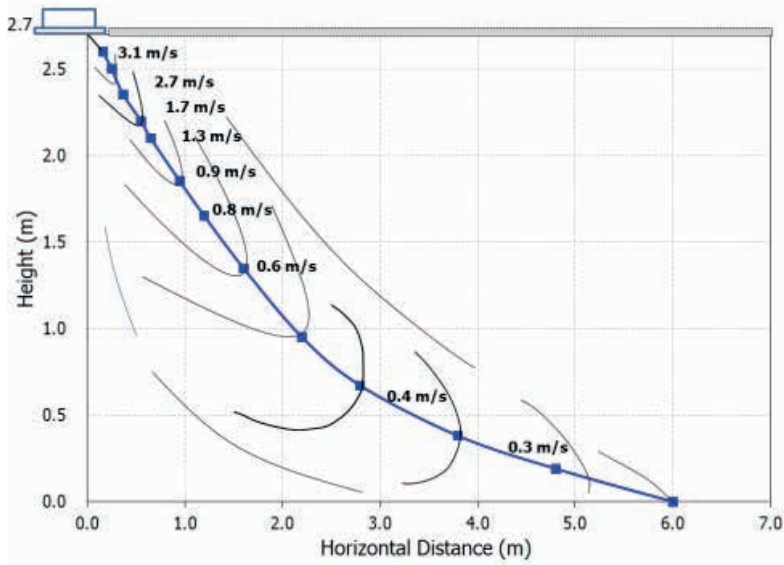
8. Air flow distance chart

MMU-UP0031-YHP* / MMU-UP0051YHP*

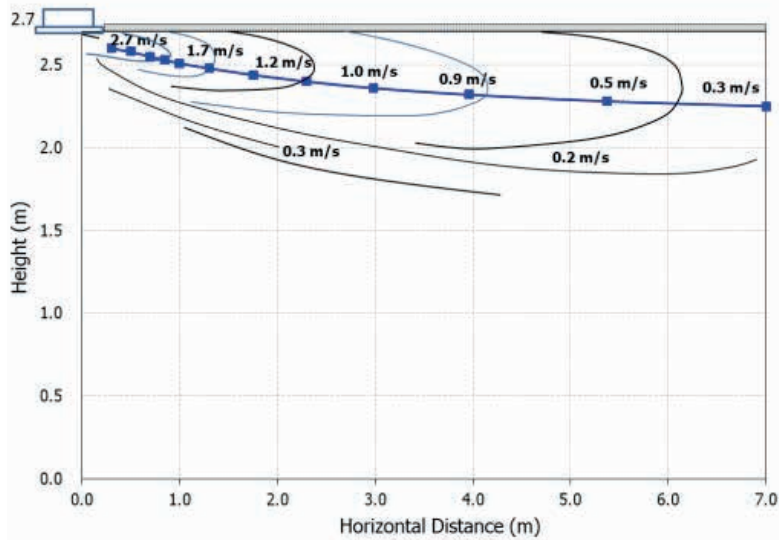


MMU-UP0071YHP*

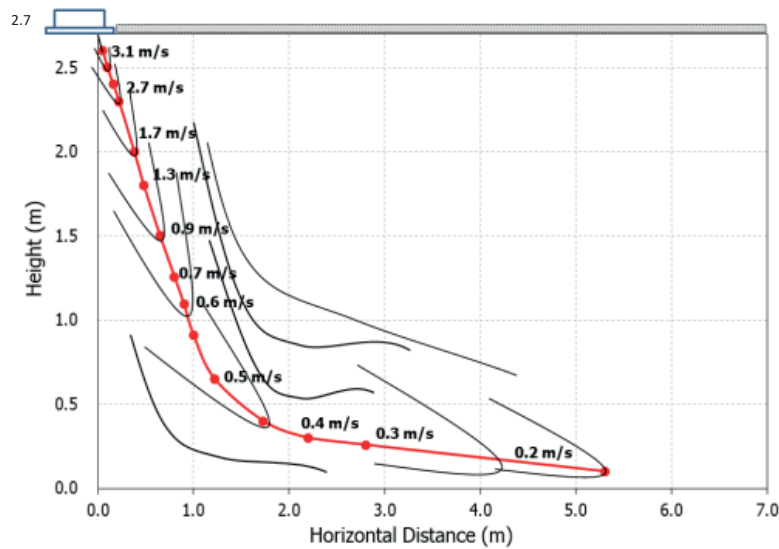
Center louver



Upper louver

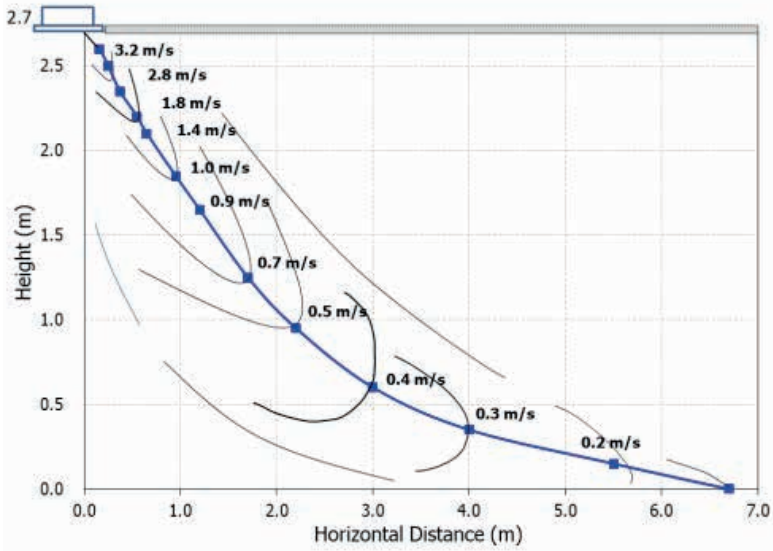


Lower louver

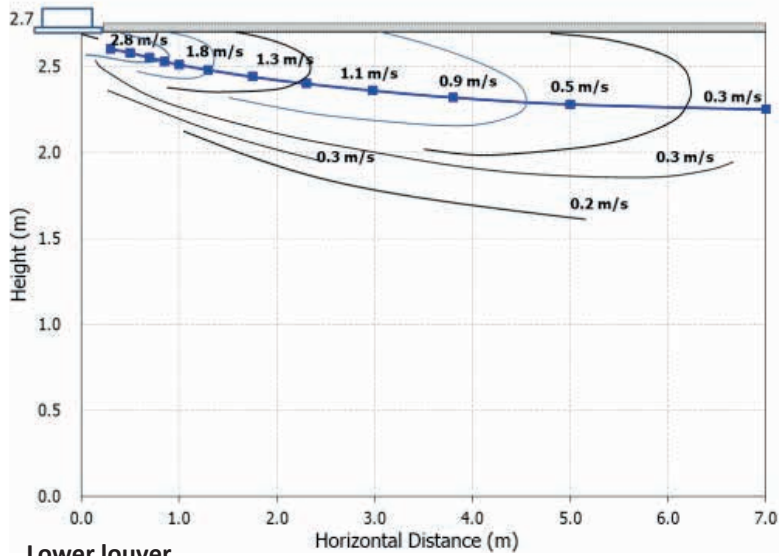


MMU-UP0091YHP*

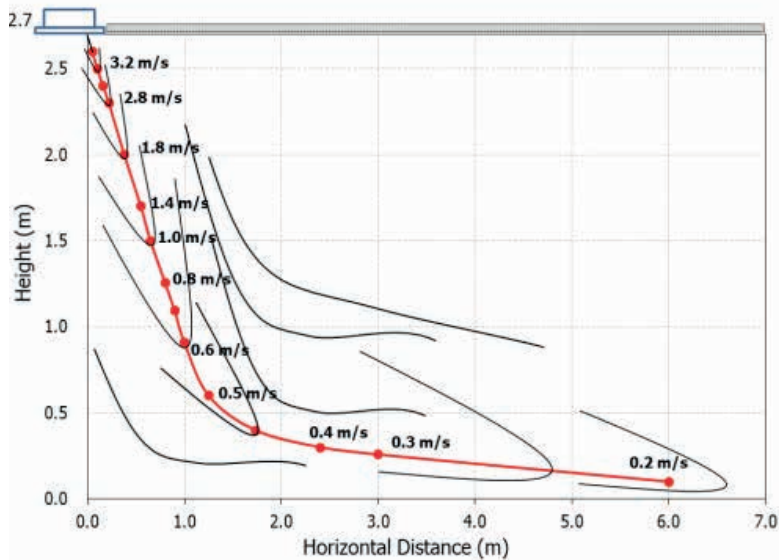
Center louver



Upper louver

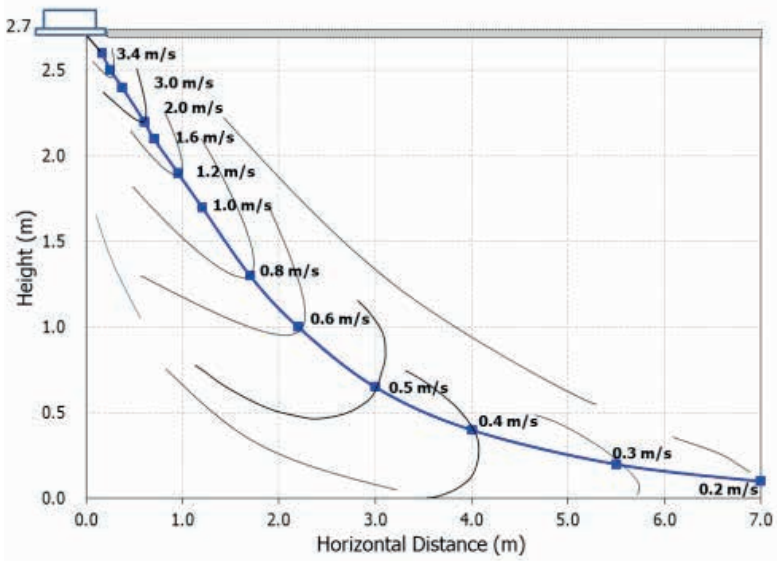


Lower louver

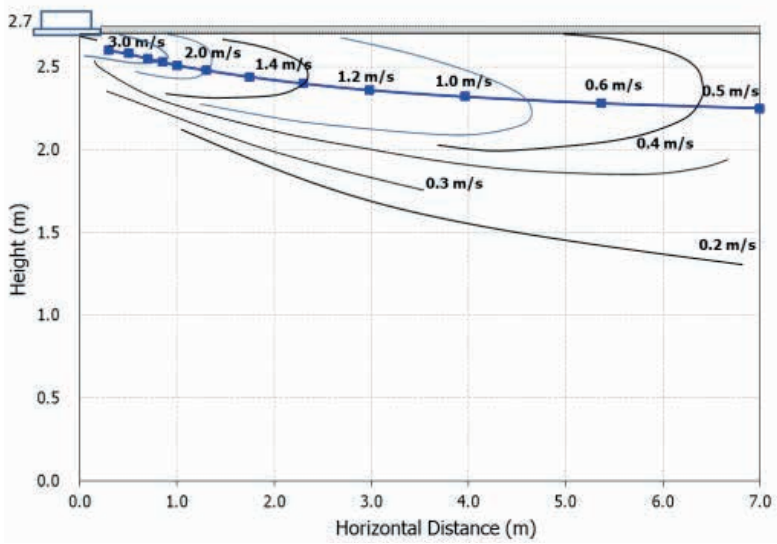


MMU-UP0121YHP*

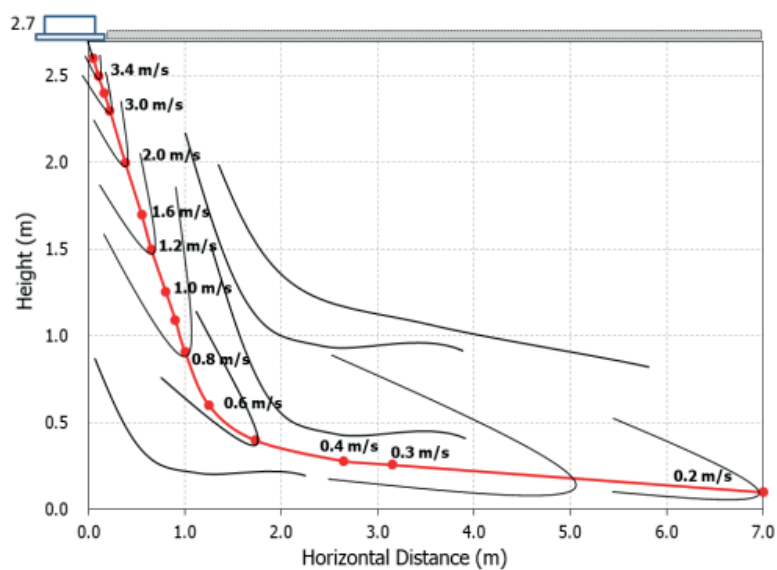
Center louver



Upper louver

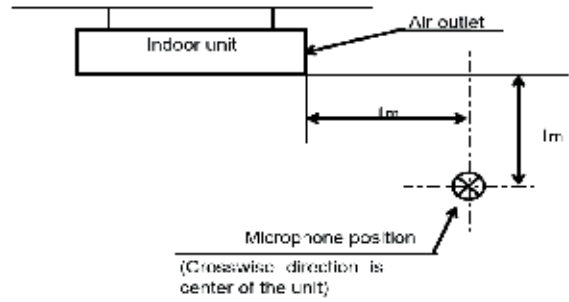


Lower louver



9. Sound data

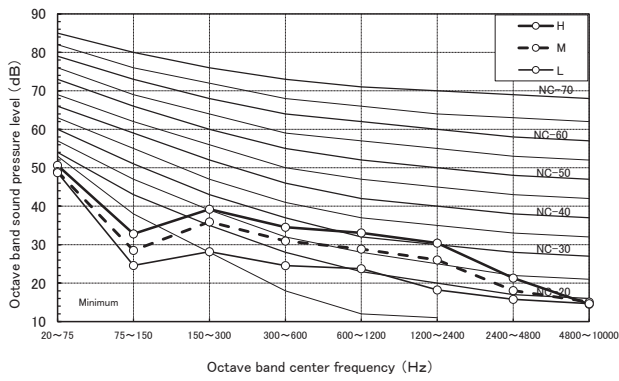
Sound pressure spectrum



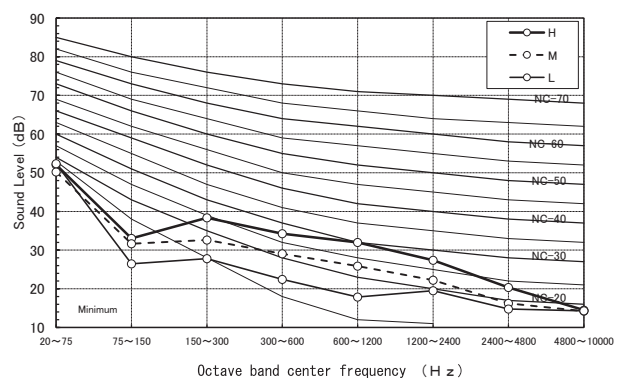
MMU-UP0031YHP-E/TR

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	37	33	25

Cooling



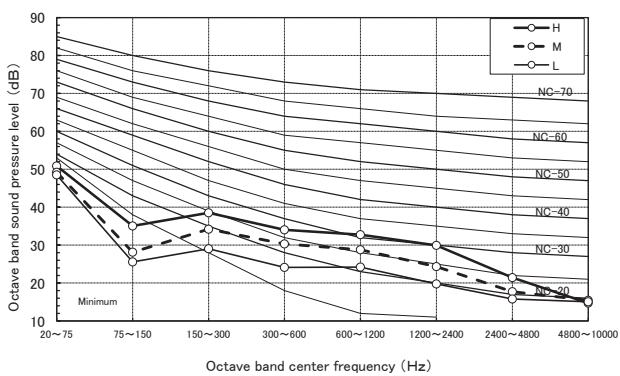
Heating



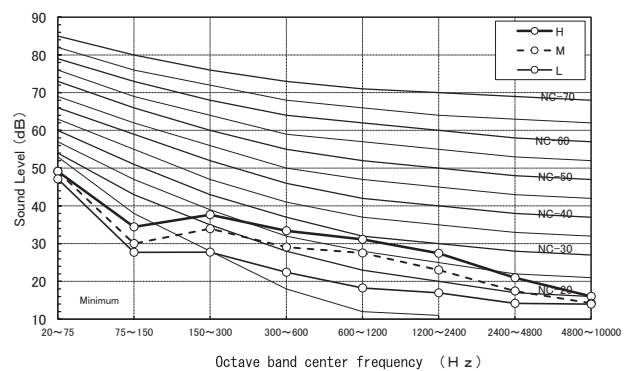
MMU-UP0051YHP-E / -TR

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	37	33	25

Cooling



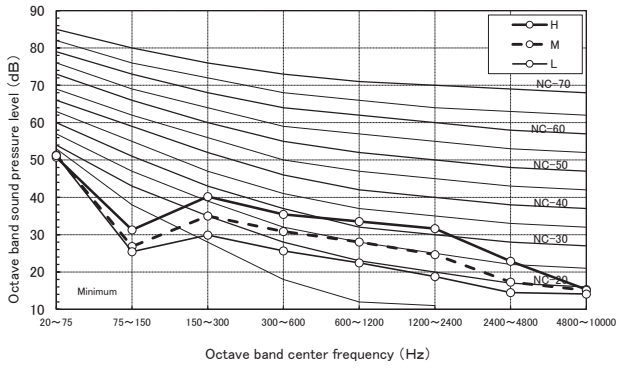
Heating



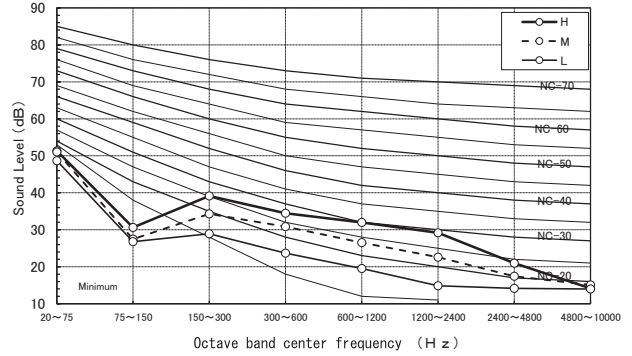
MMU-UP0071YHP-E / -TR

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	38	34	25

Cooling



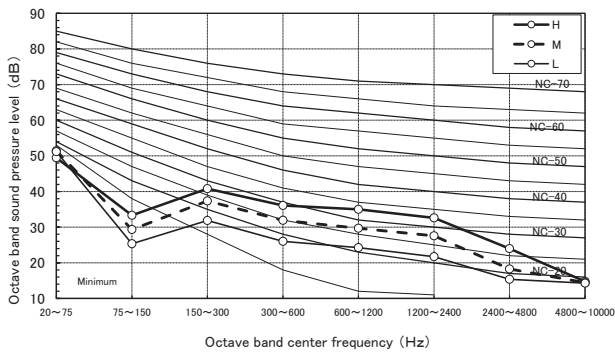
Heating



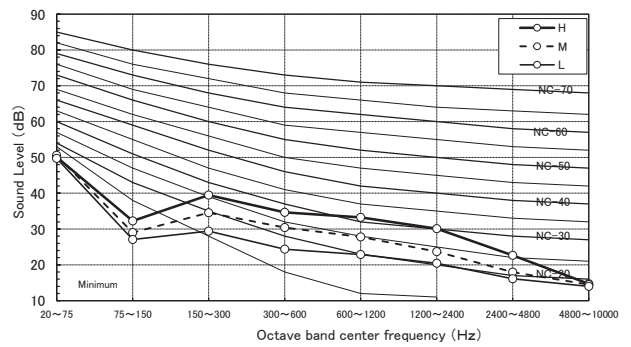
MMU-UP0091YHP-E / -TR

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	39	35	26

Cooling



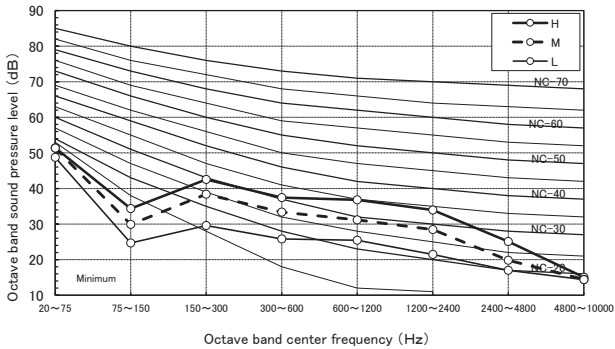
Heating



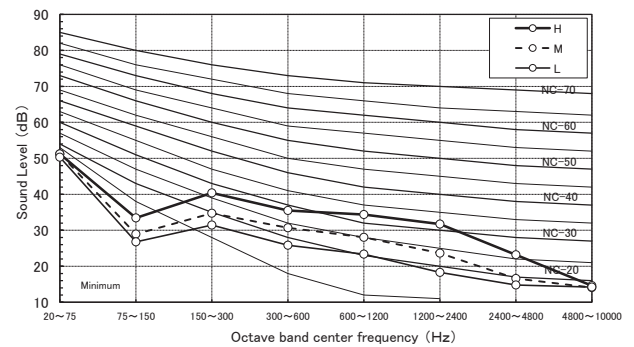
MMU-UP0121YHP-E / -TR

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	40	36	26

Cooling



Heating



10. Accessories

Type	Model name	Feature	Remark
1Way cassette Panel	RBC-UJ32P-E	1Way cassette panel without receiver	
Air purifier kit	TCB-EAPC1UYHP-E	Set of Plasma Air Purifier, Dust sensor, Air quality indicator and Wireless receiver	
Occupancy sensor	TCB-SIR41UYP-E	Occupancy sensor for 1Way cassette	
Wireless reciever kit	RBC-AX33UYP-E	wireless RC kit for 1Way cassette	
Wired Remote Controller	RBC-ASCU11-E	Compact type	
	RBC-AMTU31-E	Standard type	
	RBC-AMSU51-EN/ES	Premium type	

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