

# High Wall Type

**MMK-AP0077HPUL**

**MMK-AP0097HPUL**

**MMK-AP0127HPUL**

**MMK-AP0157HPUL**

**MMK-AP0187HPUL**

**MMK-AP0247HPUL**



## Contents

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

# 1. Specifications

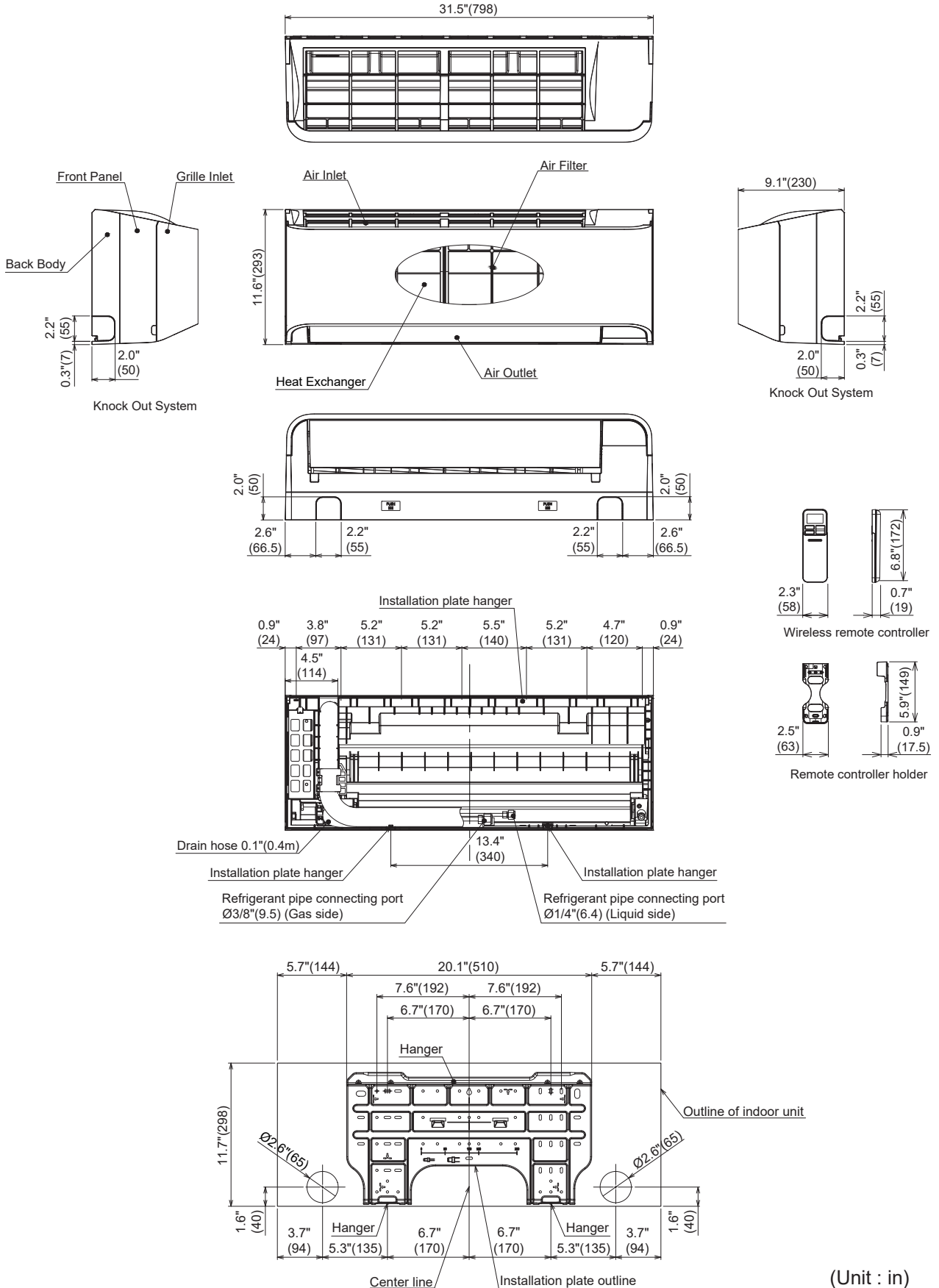
Model name		MMK-	AP0077HPUL	AP0097HPUL	AP0127HPUL	AP0157HPUL	AP0187HPUL	AP0247HPUL
Power supply		1 ph 60Hz 230V (208V/230V)						
Cooling capacity (*1)		kBtu/h	7.5	9.5	12.0	15.4	18.0	24.0
Sensible cooling capacity		kBtu/h	5.6	7.1	9.0	11.6	13.5	18.0
Heating capacity (*1)		kBtu/h	8.5	10.5	13.5	17.0	20.0	27.0
Power consumption		(kW)	0.015	0.016	0.017	0.028	0.032	0.050
FCU dimension	Main unit	Height (in)	11.6	11.6	11.6	12.6	12.6	12.6
		Width (in)	31.5	31.5	31.5	41.4	41.4	41.4
		Depth (in)	9.1	9.1	9.1	9.9	9.9	9.9
Total weight	Main unit	(lbs)	27	27	27	36	36	36
Heat exchanger		Finned tube						
Soundproof / Heat-insulation material		Polyethylene foam						
Fan		Cross flow fan						
Air flow volume	Indoor unit (H/M/L)	(cfm)	283 / 226 / 159	300 / 232 / 159	318 / 241 / 159	494 / 406 / 324	530 / 424 / 324	706 / 530 / 353
Sound pressure	Indoor unit (H/M/L)	dB(A)	35 / 30 / 27	36 / 31 / 27	37 / 32 / 27	40 / 36 / 32	41 / 37 / 32	45 / 39 / 33
Motor output		(W)	30	30	30	30	30	30
Flare Connections	Gas side	(in)	3/8	3/8	3/8	1/2	1/2	5/8
	Liquid side	(in)	1/4	1/4	1/4	1/4	1/4	3/8
	Drain pipe	(in)	VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63)					
Operating Range for SMMS-I, SMMS-e	Cooling	(°F)	41 ~ 109					
	Heating	(°F)	14 ~ 109					

(\*1) Rated testing conditions Cooling : Indoor air temperature 80°F Dry Bulb / 67°F Wet Bulb, Outdoor 95°F Dry Bulb

Heating : Indoor air temperature 70°F Dry Bulb, Outdoor 47°F Dry Bulb / 43°F Wet Bulb

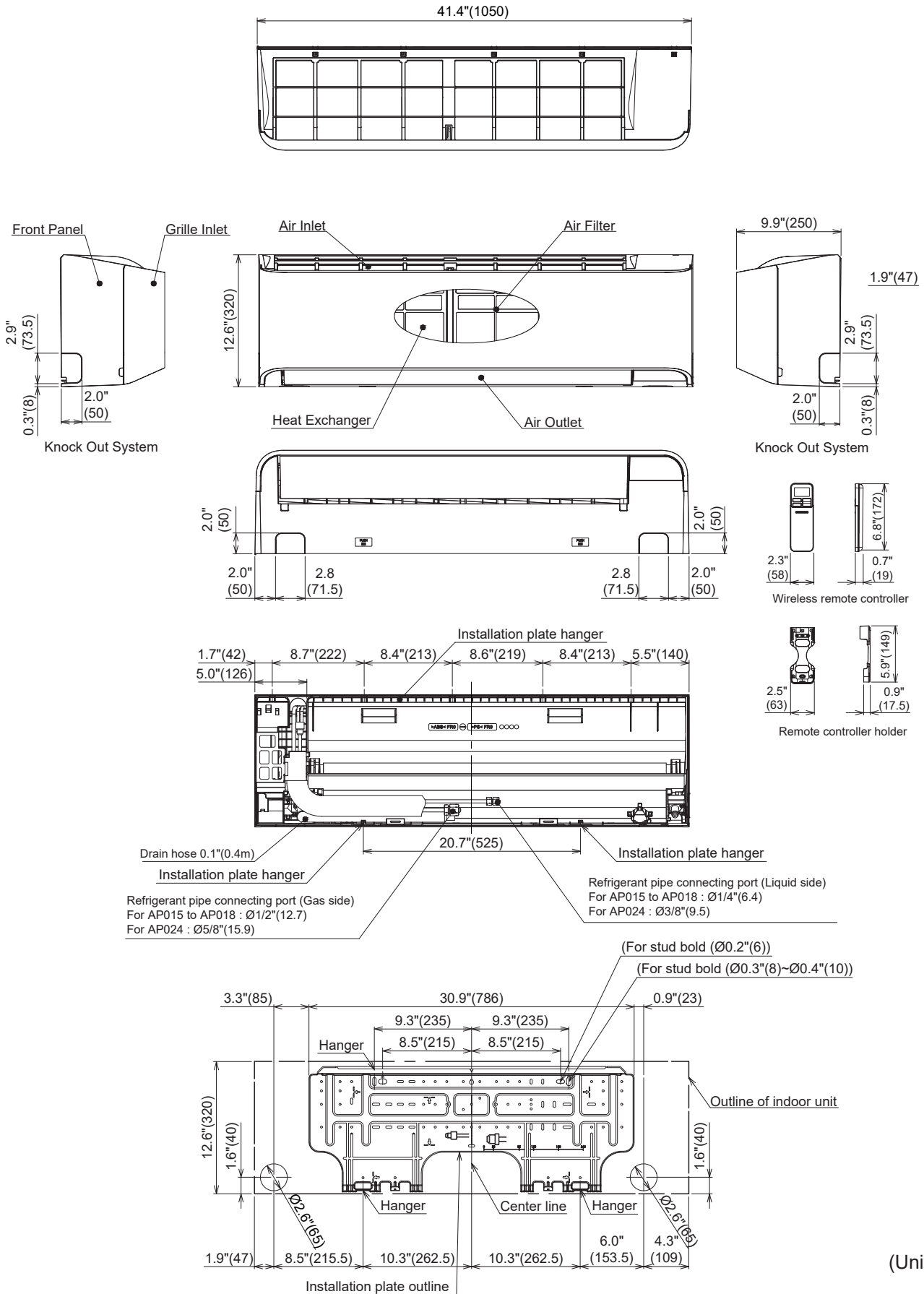
## 2. Dimension

MMK-AP0077HPUL, MMK-AP0097HPUL, MMK-AP0127HPUL



(Unit : in)

MMK-AP0157HPUL, MMK-AP0187HPUL, MMK-AP0247HPUL

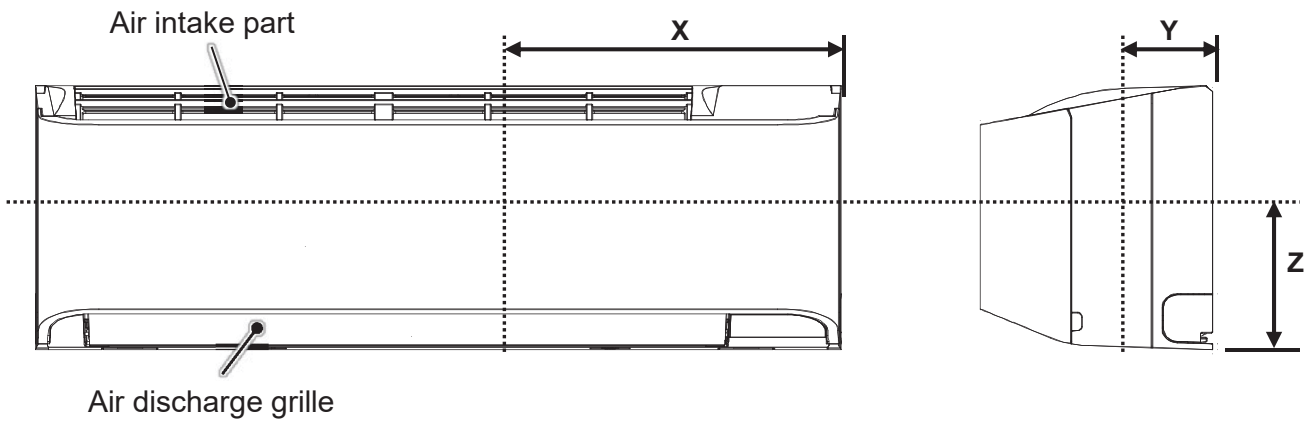


(Unit : in)

### 3. Center of gravity

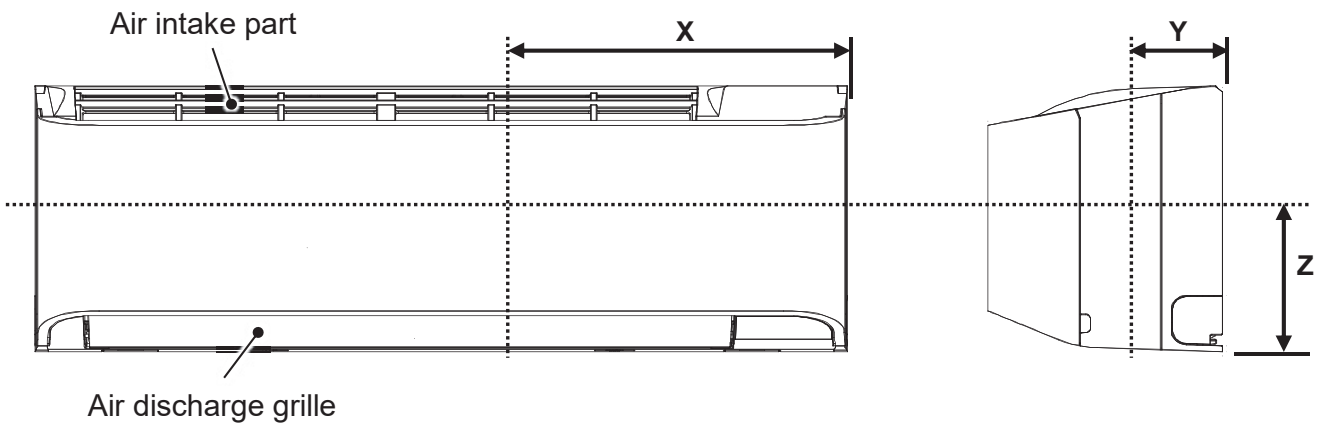
MMK-AP0077HPUL, MMK-AP0097HPUL, MMK-AP0127HPUL

Model name	X (in)	Y (in)	Z (in)	Total weight (lbs)
MMK-AP0077HPUL	13.2	4.3	5.9	27
MMK-AP0097HPUL				
MMK-AP0127HPUL				



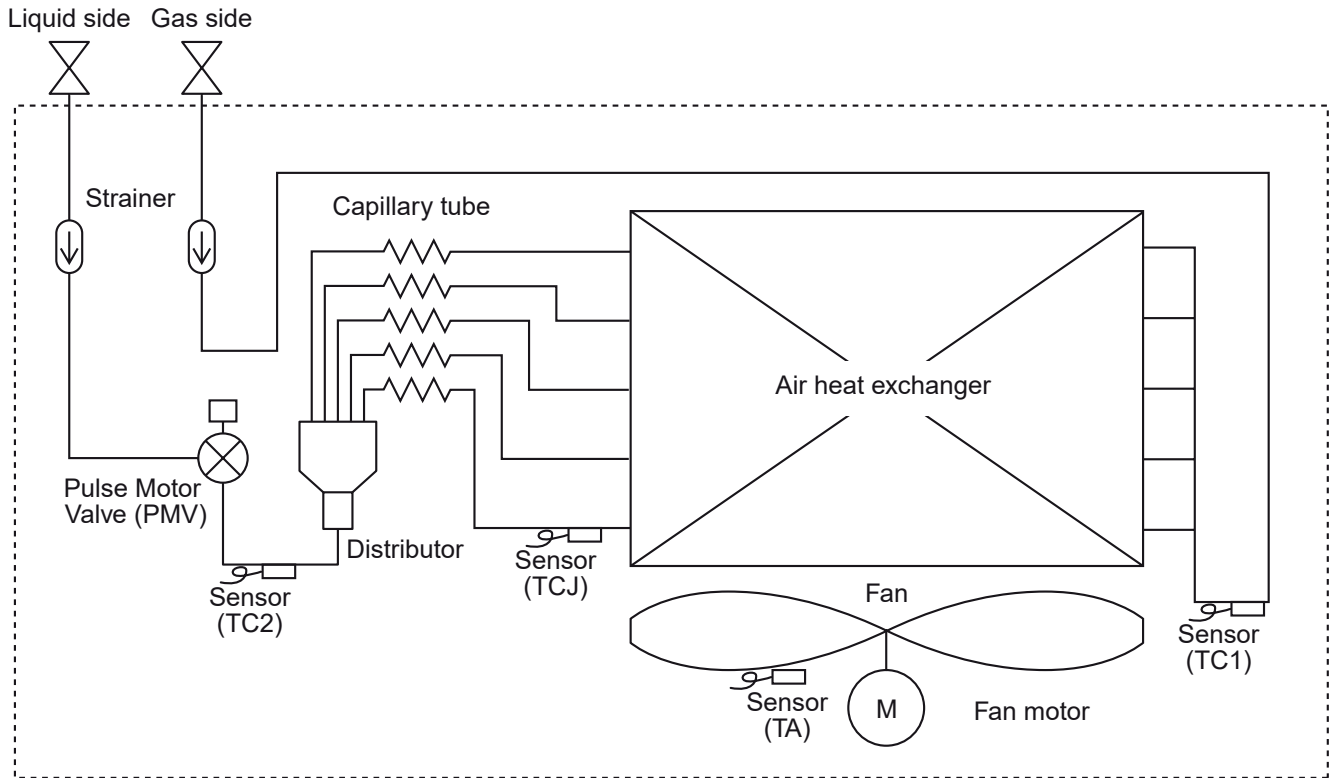
MMK-AP0157HPUL, MMK-AP0187HPUL, MMK-AP0247HPUL

Model name	X (in)	Y (in)	Z (in)	Total weight (lbs)
MMK-AP0157HPUL	16.7	4.7	4.9	36
MMK-AP0187HPUL				
MMK-AP0247HPUL				



### 4. Piping diagram

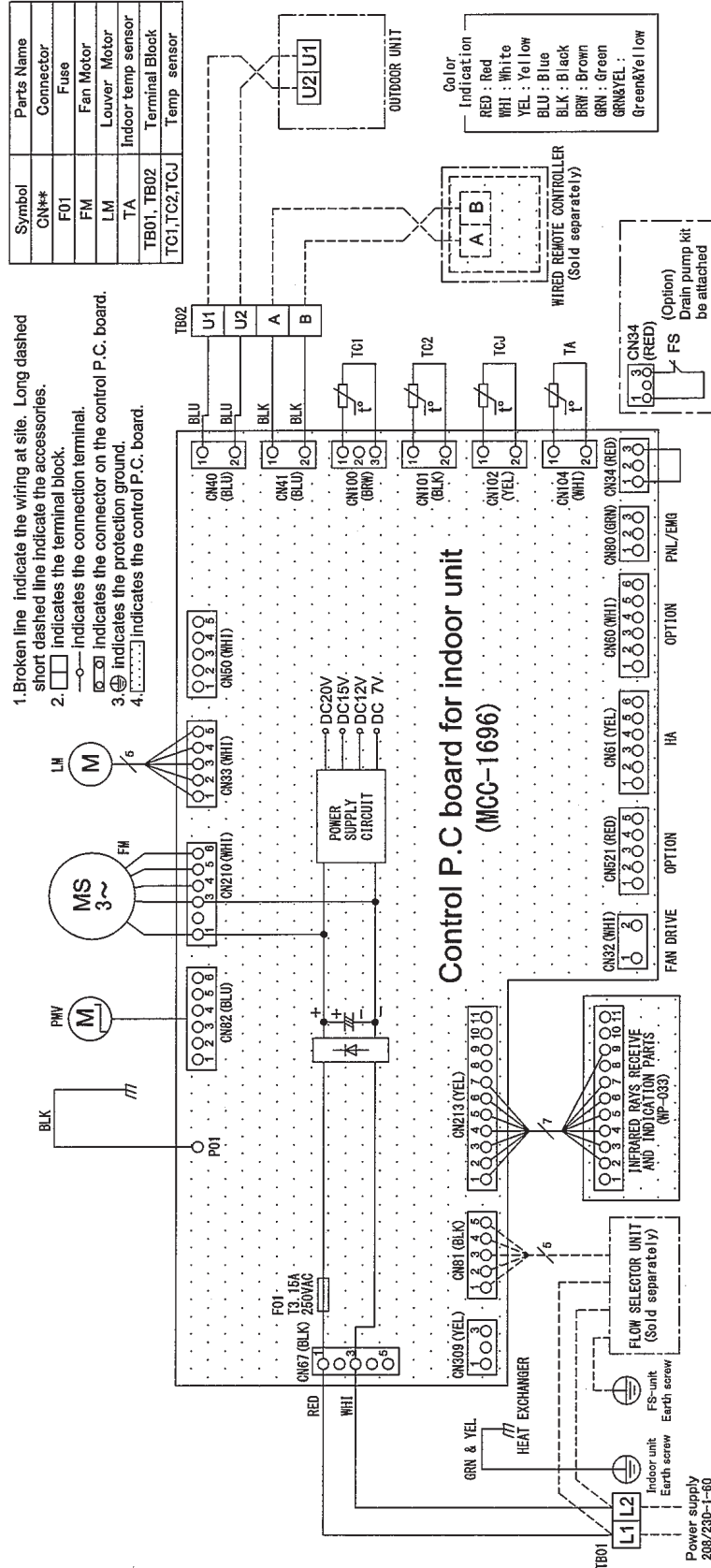
MMK-AP0077HPUL / MMK-AP0097HPUL / MMK-AP0127HPUL / MMK-AP0157HPUL / MMK-AP0187HPUL / MMK-AP0247HPUL



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

# 5. Wiring diagram

MMK-AP0077HPUL / MMK-AP0097HPUL / MMK-AP0127HPUL / MMK-AP0157HPUL /  
MMK-AP0187HPUL / MMK-AP0247HPUL



## 6. Electrical current characteristics

Indoor unit power supply

Type	Model name	Normal Voltage (V-Ph-Hz)	Voltage Range (V)		FLA	MCA	MOCP
			Min.	Max.	A	A	A
High Wall Type	MMK-AP0077HPUL	208/230-1-60	187	253	0.17	0.21	15
	MMK-AP0097HPUL	208/230-1-60	187	253	0.18	0.23	15
	MMK-AP0127HPUL	208/230-1-60	187	253	0.20	0.25	15
	MMK-AP0157HPUL	208/230-1-60	187	253	0.30	0.37	15
	MMK-AP0187HPUL	208/230-1-60	187	253	0.33	0.42	15
	MMK-AP0247HPUL	208/230-1-60	187	253	0.48	0.60	15

MCA : Minimum Circuit (Amps)

FLA : Full load (Amps)

MOCP : Maximum Overcurrent Protection (Amps)



# 7. Sensible Capacity Table

High-wall type (MMK-AP\*\*\*7HPUL)

unit size	outdoor air temp. °FDB	Indoor air temp.													
		59 °F WB		61 °F WB		64 °F WB		67 °F WB		68 °F WB		72 °F WB		75 °F WB	
		71 °F DB	73 °F DB	73 °F DB	77 °F DB	77 °F DB	80 °F DB	82 °F DB	82 °F DB	86 °F DB	86 °F DB	90 °F DB	90 °F DB		
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
007	50	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	54	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	57	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	61	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	64	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	68	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	70	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	73	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	77	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	81	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	84	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
	88	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340
91	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340	
95	6380	5070	6680	5220	7100	5430	7500	5600	7630	5620	8110	5540	8450	5340	
99	6190	4920	6490	5070	6890	5270	7280	5440	7410	5460	7870	5380	8200	5190	
102	6050	4810	6330	4950	6730	5150	7110	5310	7230	5330	7690	5250	8010	5060	
009	50	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	54	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	57	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	61	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	64	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	68	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	70	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	73	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	77	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	81	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	84	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
	88	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770
91	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770	
95	8090	6440	8460	6610	9000	6890	9500	7100	9660	7120	10270	7030	10700	6770	
99	7860	6250	8210	6420	8740	6690	9220	6890	9380	6910	9970	6830	10390	6570	
102	7670	6110	8020	6270	8530	6530	9010	6730	9160	6750	9740	6660	10140	6420	
012	50	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580
	54	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580
	57	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580
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	70	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580
	73	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580
	77	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580
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91	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580	
95	10210	8160	10690	8390	11360	8720	12000	9000	12210	9030	12980	8910	13510	8580	
99	9910	7920	10380	8150	11030	8470	11650	8740	11860	8770	12600	8650	13120	8330	
102	9680	7740	10130	7950	10770	8270	11380	8530	11580	8560	12310	8450	12810	8130	
015	50	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	54	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	57	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	61	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	64	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	68	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	70	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	73	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	77	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	81	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	84	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
	88	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050
91	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050	
95	13110	10520	13710	10800	14580	11240	15400	11600	15660	11630	16660	11490	17340	11050	
99	12730	10210	13310	10490	14160	10910	14950	11260	15210	11290	16180	11160	16840	10730	
102	12430	9970	13000	10240	13820	10660	14600	11000	14850	11030	15790	10890	16440	10480	

TC: Total Capacity [Btu/h]  
 SHC: Sensible Heat Capacity [Btu/h]

High-wall type (MMK-AP\*\*\*7HPUL)

unit size	outdoor air temp. °FDB	Indoor air temp.													
		59 °FWB		61 °FWB		64 °FWB		67 °FWB		68 °FWB		72 °FWB		75 °FWB	
		71 °FDB		73 °FDB		77 °FDB		80 °FDB		82 °FDB		86 °FDB		90 °FDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
018	50	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	54	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	57	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	61	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	64	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	68	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	70	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	73	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	77	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	81	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	84	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	88	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	91	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
	95	15320	12240	16030	12580	17040	13090	18000	13500	18310	13540	19470	13370	20270	12870
99	14880	11890	15570	12220	16550	12710	17480	13110	17780	13150	18910	12980	19680	12500	
102	14520	11600	15200	11930	16150	12410	17060	12800	17360	12840	18460	12670	19220	12200	
024	50	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	54	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	57	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	61	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	64	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	68	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	70	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	73	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	77	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	81	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	84	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	88	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	91	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
	95	20430	16320	21370	16760	22730	17450	24000	18000	24410	18050	25960	17820	27020	17150
99	19840	15850	20750	16270	22070	16940	23300	17480	23700	17530	25210	17300	26240	16650	
102	19370	15470	20260	15890	21550	16540	22750	17060	23140	17110	24610	16890	25610	16260	

TC: Total Capacity [Btu/h]  
 SHC: Sensible Heat Capacity [Btu/h]

## Heating capacity table

	Indoor air temp. °FDB					
Fahrenheit(°F)	62	65	68	70	72	75
Celsius(°C)	16.7	18.3	20	21.1	22.2	23.9
	Total capacity (TC) (kBtu/h)					
MMK-AP0077HPUL	8.9	8.8	8.6	8.5	8.4	8.2
MMK-AP0097HPUL	11.0	10.8	10.6	10.5	10.4	10.1
MMK-AP0127HPUL	14.1	13.9	13.7	13.5	13.3	13.0
MMK-AP0157HPUL	17.8	17.5	17.2	17.0	16.8	16.4
MMK-AP0187HPUL	20.9	20.6	20.2	20.0	19.7	19.3
MMK-AP0247HPUL	28.2	27.8	27.3	27.0	26.6	26.1

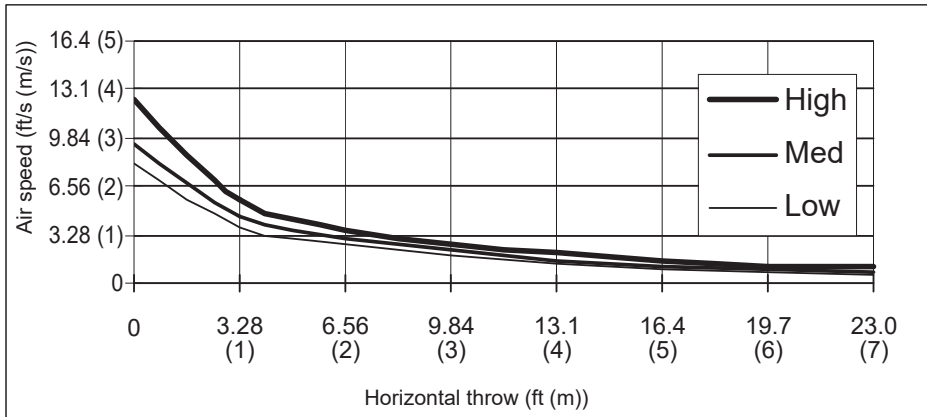
Notes: 1. These capacity tables can be used when selecting a VRF indoor unit. The actual capacity of the VRF system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the VRF system satisfies the required heat load.

Notes: 2. This is the capacity table of rated heating test condition of Outdoor 47°F Dry Bulb / 43°F Wet Bulb.

# 8. Air throw distance chart

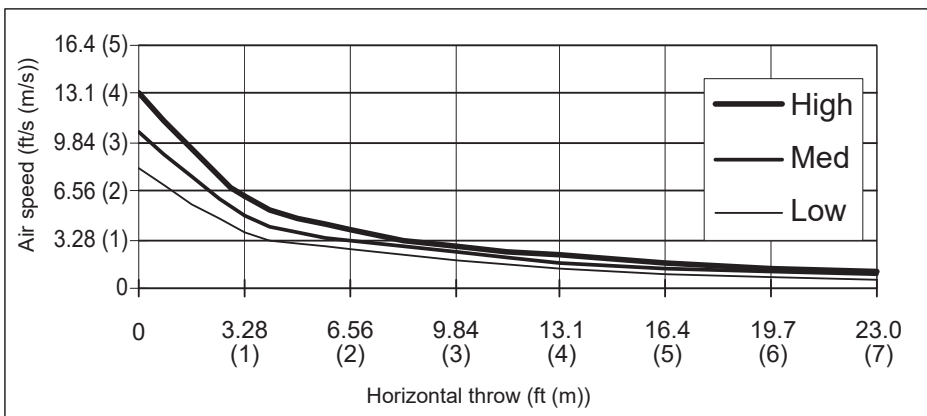
MMK-AP0077HPUL

High : 12.5 ft/s (3.8 m/s)  
Med : 9.51 ft/s (2.9 m/s)  
Low : 8.20 ft/s (2.5 m/s)



MMK-AP0097HPUL / AP0127HPUL

High : 13.1 ft/s (4.0 m/s)  
Med : 10.5 ft/s (3.2 m/s)  
Low : 8.20 ft/s (2.5 m/s)

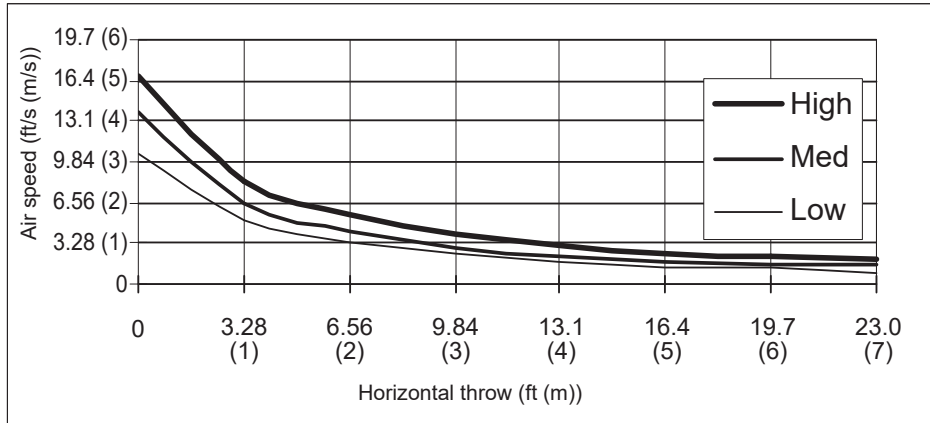


### MMK-AP0157HPUL / AP0187HPUL

High : 16.7 ft/s (5.1 m/s)

Med : 13.8 ft/s (4.2 m/s)

Low : 10.5 ft/s (3.2 m/s)

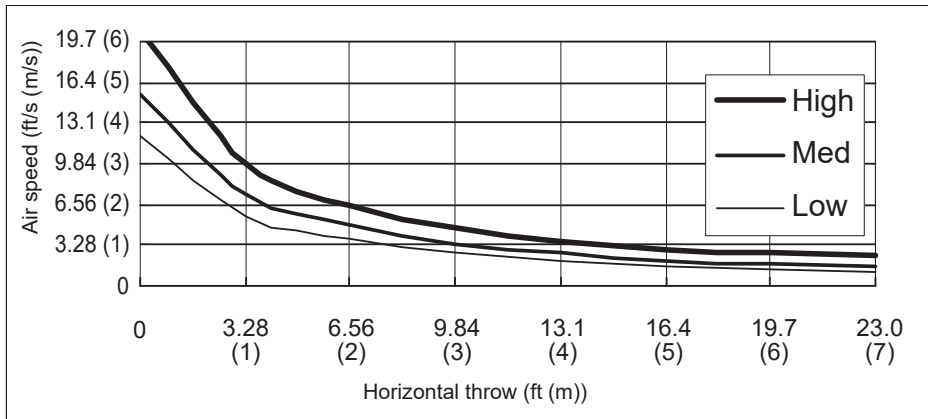


### MMK-AP0247HPUL

High : 20.3 ft/s (6.2 m/s)

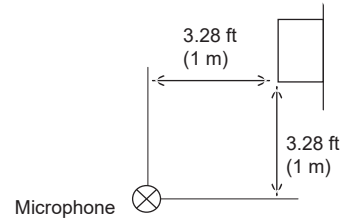
Med : 15.4 ft/s (4.7 m/s)

Low : 12.1 ft/s (3.7 m/s)



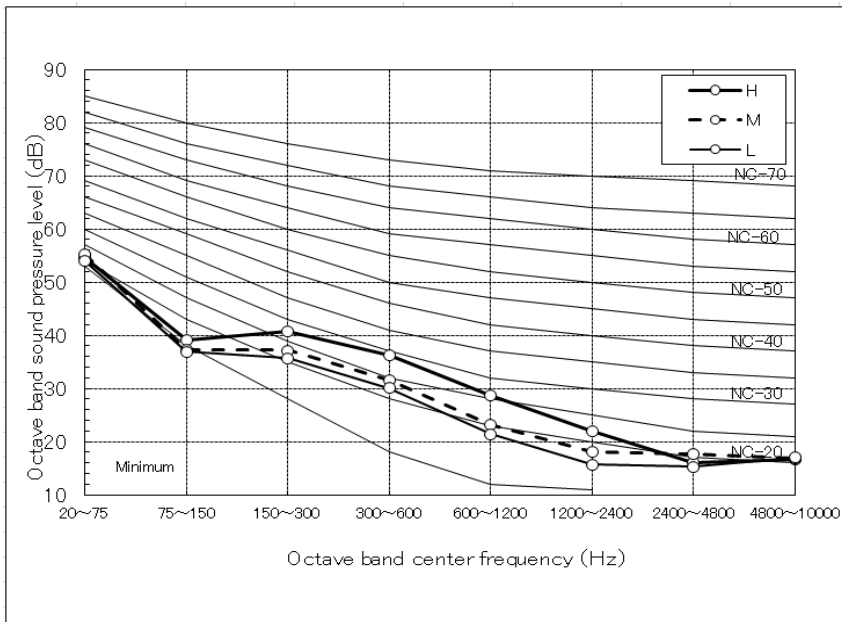
# 9. Sound data

Sound pressure spectrum



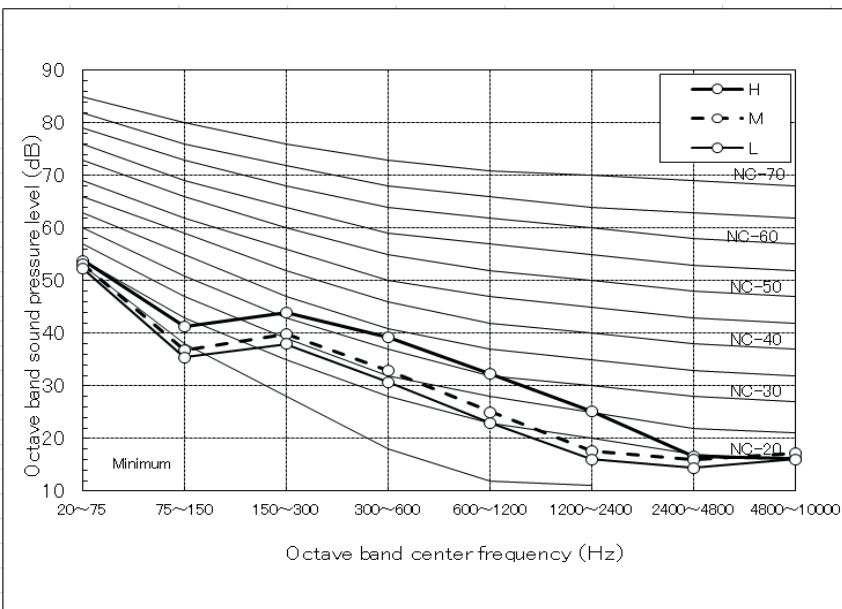
## MMK-AP0077HPUL

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	35	30	27



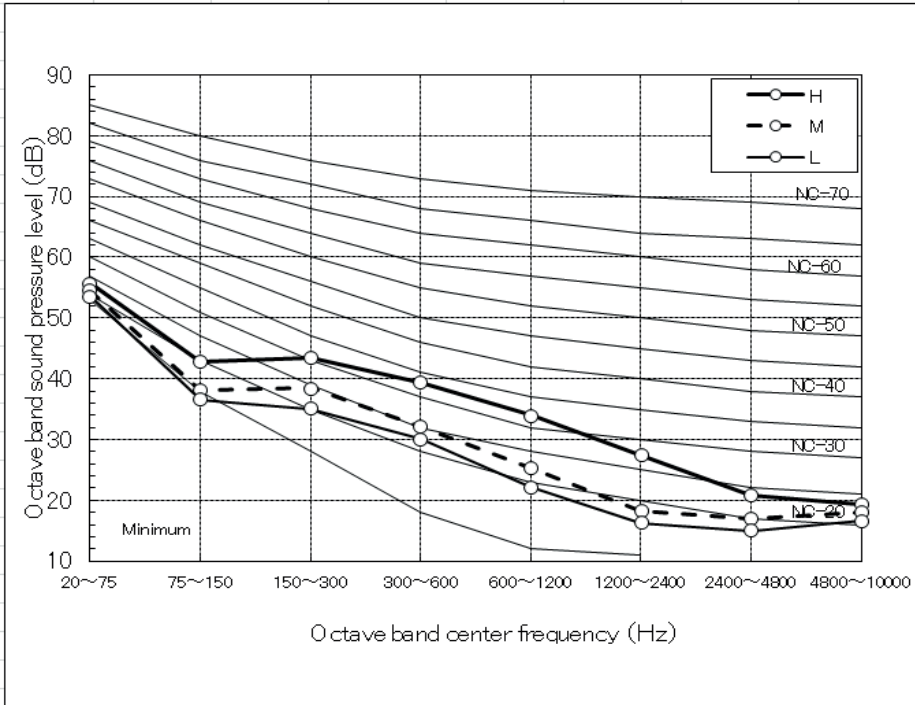
## MMK-AP0097HPUL

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	36	31	27



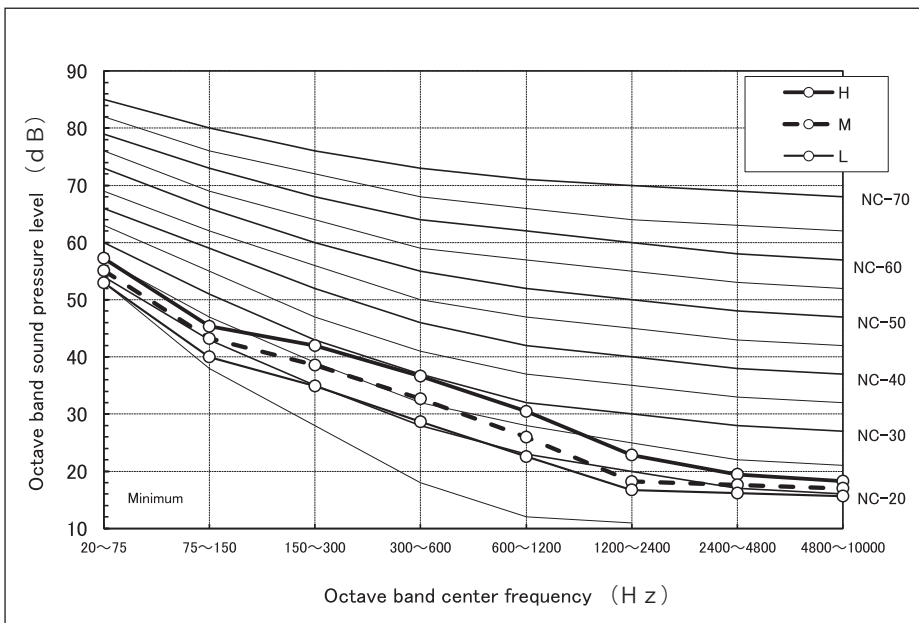
MMK-AP0127HPUL

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	37	32	27



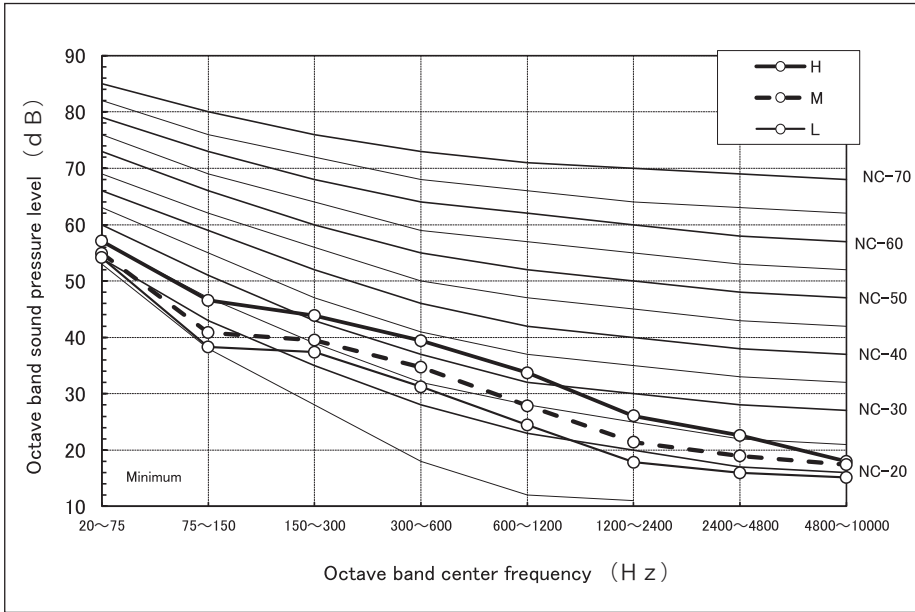
MMK-AP0157HPUL

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	40	36	32



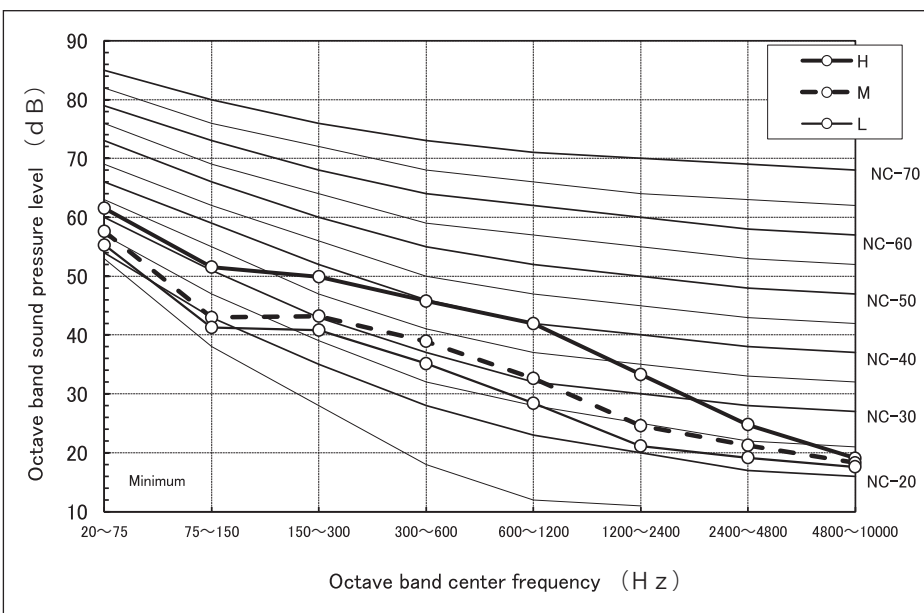
MMK-AP0187HPUL

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	41	37	32





MMK-AP0247HPUL

Specification (dB)			
Fan tap	H	M	L
Sound pressure level (dB(A))	45	39	33





# 10. Accessories

Name	Appearance	Application	Function
Wireless remote control	 <p style="text-align: center;">Slide down to unhide</p>		<ul style="list-style-type: none"> <li>• Start / Stop</li> <li>• Changing mode</li> <li>• Temperature setting</li> <li>• Air flow changing (5 steps)</li> <li>• Louver setting</li> <li>• Clock</li> <li>• Timer function                             <ul style="list-style-type: none"> <li>- ON/OFF timer (10 min. step)</li> <li>- Everyday timer</li> <li>- Sleep timer</li> <li>- COMFORT SLEEP timer</li> </ul> </li> <li>• High power mode</li> <li>• QUIET mode</li> <li>• One-touch pre-set memory</li> <li>• A/B temperature display switching</li> </ul>

Packed with the indoor unit

# **TOSHIBA CARRIER (THAILAND) CO.,LTD.**

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Amphur Muang, Pathumthani 12000, Thailand

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