

# High Static Ducted type

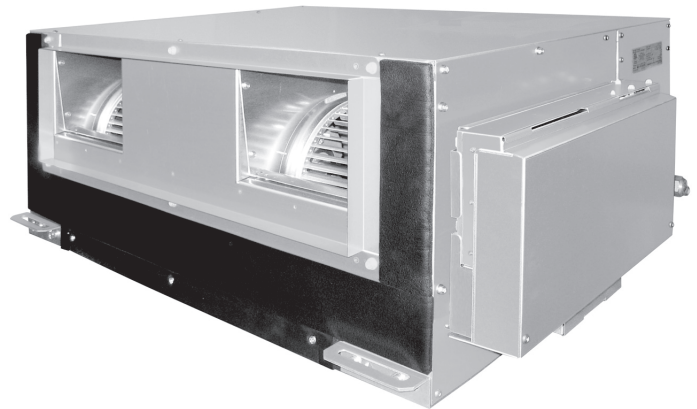
**MMD-AP0304H2UL**

**MMD-AP0364H2UL**

**MMD-AP0484H2UL**

**MMD-AP0724H2UL**

**MMD-AP0964H2UL**



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## 1. Specifications



### Concealed Duct High Static Pressure type

Model name			MMD-	AP0304H2UL	AP0364H2UL	AP0484H2UL	AP0724H2UL	AP0964H2UL
Cooling Capacity			kBtu/h	30	36	48	72	81
Heating Capacity			kBtu/h	34	40	54	96	108
Electrical characteristics	Power supply			230 V (208/230 V) 1phase 60 Hz				
	Power consumption (208/230 V)		kW	0.38/0.41	0.38/0.41	0.35/0.41	1.37/1.44	1.20/1.63
Appearance			Zinc hot dipping steel plate					
Dimension	Unit	Height	In	15.0			18.5	
		Width	In	33.5		47.2	54.3	
		Depth	In	26.0			49.2	
	Packing	Height	In	17.0			24	
		Width	In	42.6		56.4	61.8	
		Depth	In	31.9			55.3	
Total weight	Unit		lbs	128		154	362	
	Packed unit		lbs	141		176	417	
Heat exchanger			Finned tube					
Fan unit	Fan		Centrifugal fan					
	Standard air flow		cfm	926		1235	2120	2473
	Motor		W	260			370 × 3	
	External static pressure (*1)	Factory default (208/230 V)	In WG	0.641/0.814		0.296/0.519	0.580/0.929	0.317/0.734
		208 V (High tap/Mid tap/Low tap) (*3)	In WG	1.075 - 0.641 - 0.287		0.606 - 0.296 - Non	0.896 - 0.580 - 0.346	0.739 - 0.317 - 0.062
		230 V (High tap/Mid tap/Low tap) (*3)	In WG	1.175 - 0.814 - 0.506		0.801 - 0.519 - 0.114	1.12 - 0.929 - 0.29	1.099 - 0.734 - 0.459
	Air flow limit	Lower limit	cfm	755.2		988.2	1766	2473
		Upper limit	cfm	1132.8		1447.1	2002	2944
Air filter			Field supply					
Connecting pipe	Gas side		In	5/8"			7/8"	
	Liquid side		In	3/8"			1/2"	
	Drain port (Nominal dia.)		In	VP25 (Polyvinyl chloride tube: External Dia.1-1/4 Internal Dia.1)				
Sound pressure level (*2)		208 V (High tap/Mid tap/Low tap) (*3)	dB(A)	49.5/45/41		47/44/-	49.5/45/41	
		230 V (High tap/Mid tap/Low tap) (*3)	dB(A)	51/47/43		49/46/43	51/47/43	

#### Note

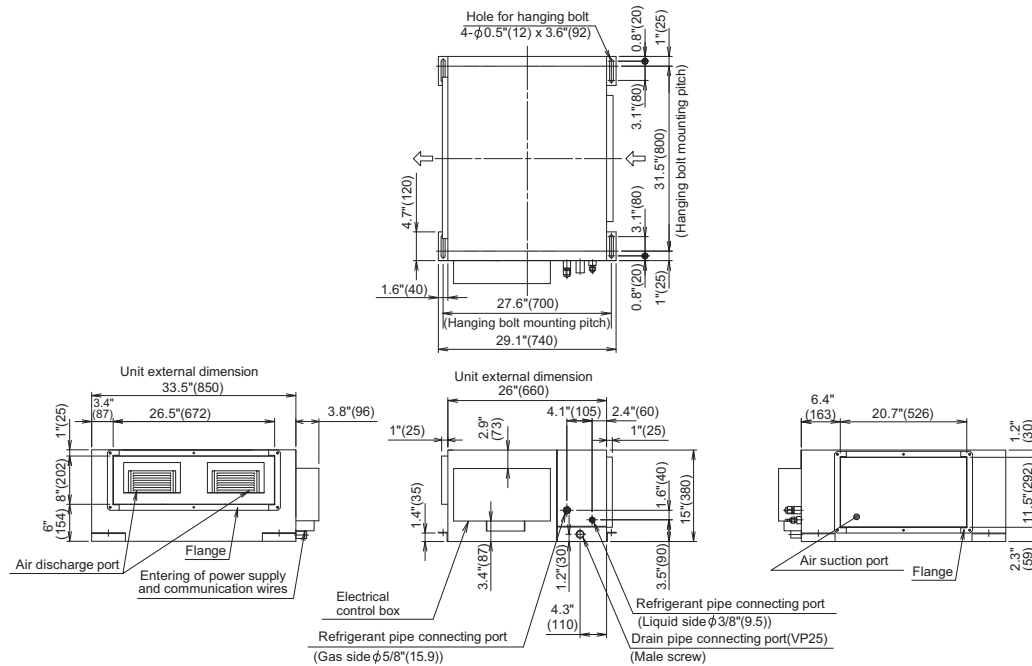
(\*1) Non attached filter

(\*2) The actual values in an external operating environment are generally higher than the indicated values due to the contribution from ambient noise.

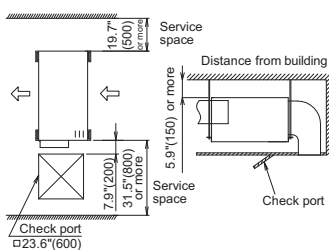
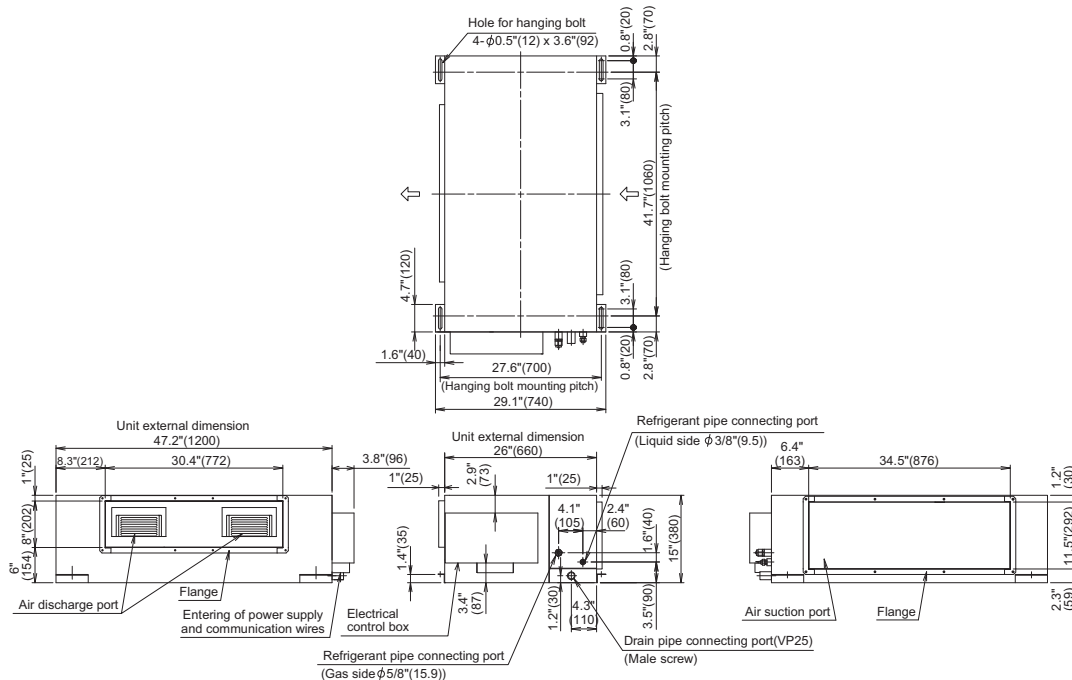
(\*3) The tap is set by wire connection change of fan motor.

## 2. Dimensions

MMD-AP0304H2UL, AP0364H2UL

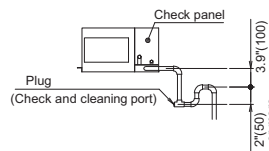


## MMD-AP0484H2UL



**Attention**

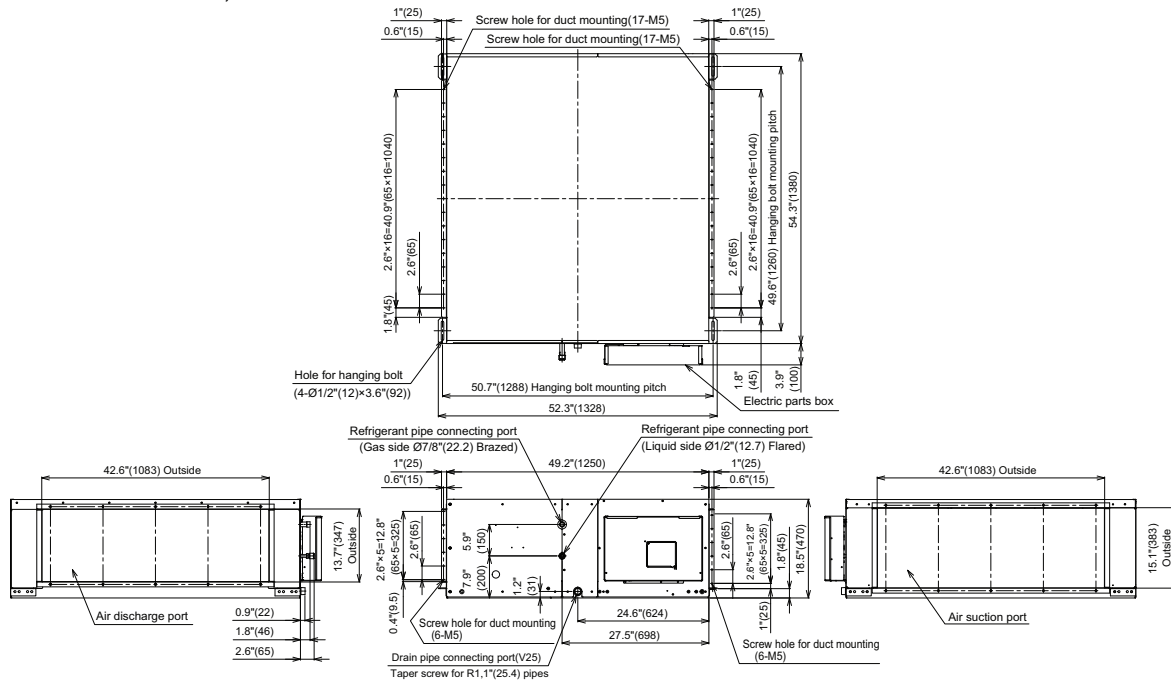
Be sure to set the plug and to make it to be able to cleaning, because garbage in drain piping piles up easily in drain trap.



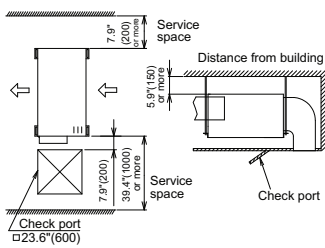
<Note>

1. Indoor unit does not have air filter its inside.  
So be sure to set an air filter (local arrangements) in the position maintained easily such as a air intake grille.  
(If there is no air filter, dusts are blocked in the air heat exchanger and it may cause failure or water leak in air-conditioner.)
2. Leave sufficient space to remove the air filter when you attach it.

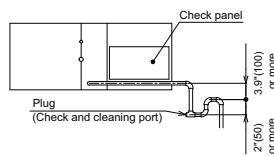
## MMD-AP0724H2UL, MMD-AP0964H2UL



## Space required for installation or service work

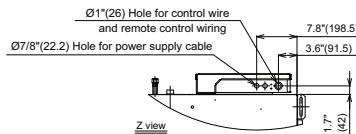


**Attention**  
Be sure to set the plug and to make it to be able to cleaning, because garbage in drain piping piles up easily in drain trap.



## &lt;Note&gt;

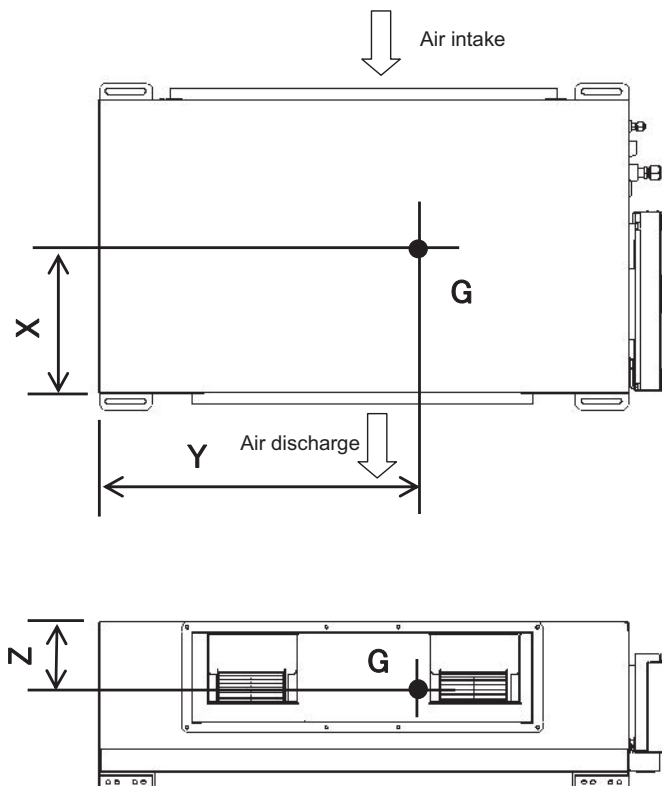
- Indoor unit does not have air filter its inside. So be sure to set an air filter (local arrangements) in the position maintained easily such as a suction grills. (If there is no air filter, dusts are blocked in the air heat exchanger and it may cause failure or water leak in air-conditioner.)
- Leave sufficient space to remove the air filter when you attach it.



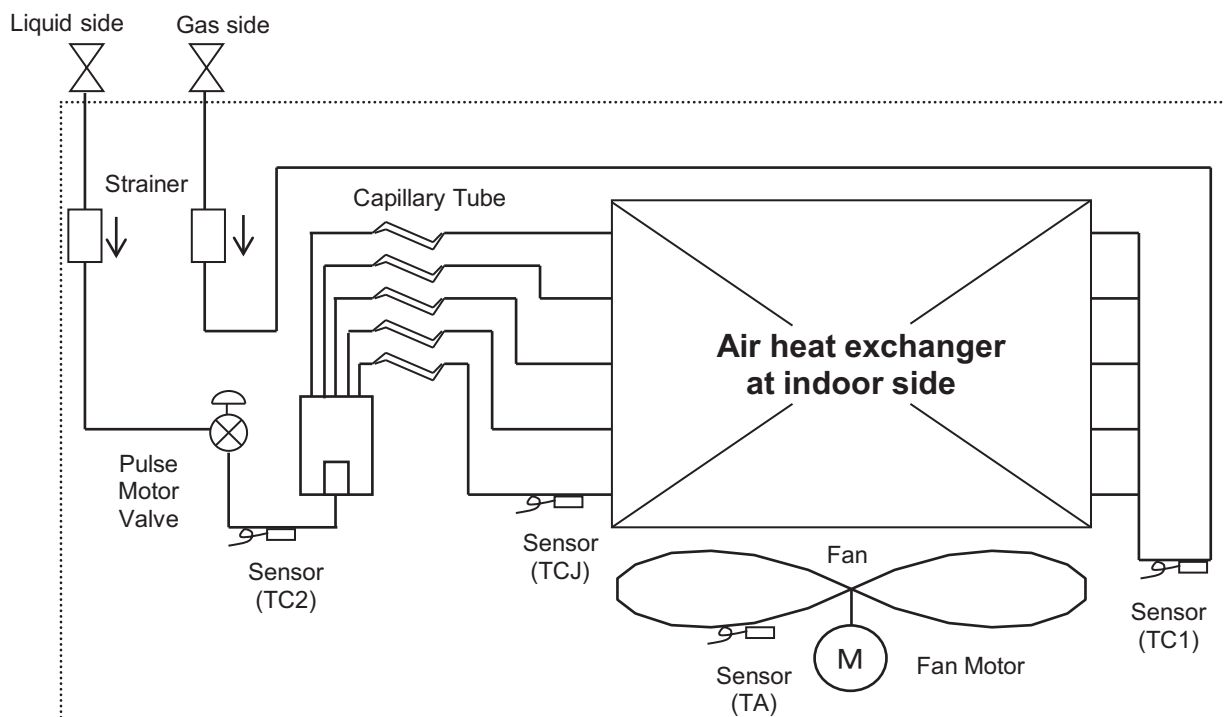
Unit: in (mm)

### 3. Center of gravity

Model name	X (In)	Y (In)	Z (In)	Total weight (lbs)
MMD-AP0304H2UL MMD-AP0364H2UL	11.4	17.7	7.7	128
MMD-AP0484H2UL	11.4	25.4	7.7	154
MMD-AP0724H2UL	11.4	28.4	8.7	362
MMD-AP0964H2UL	11.4	28.4	8.7	362

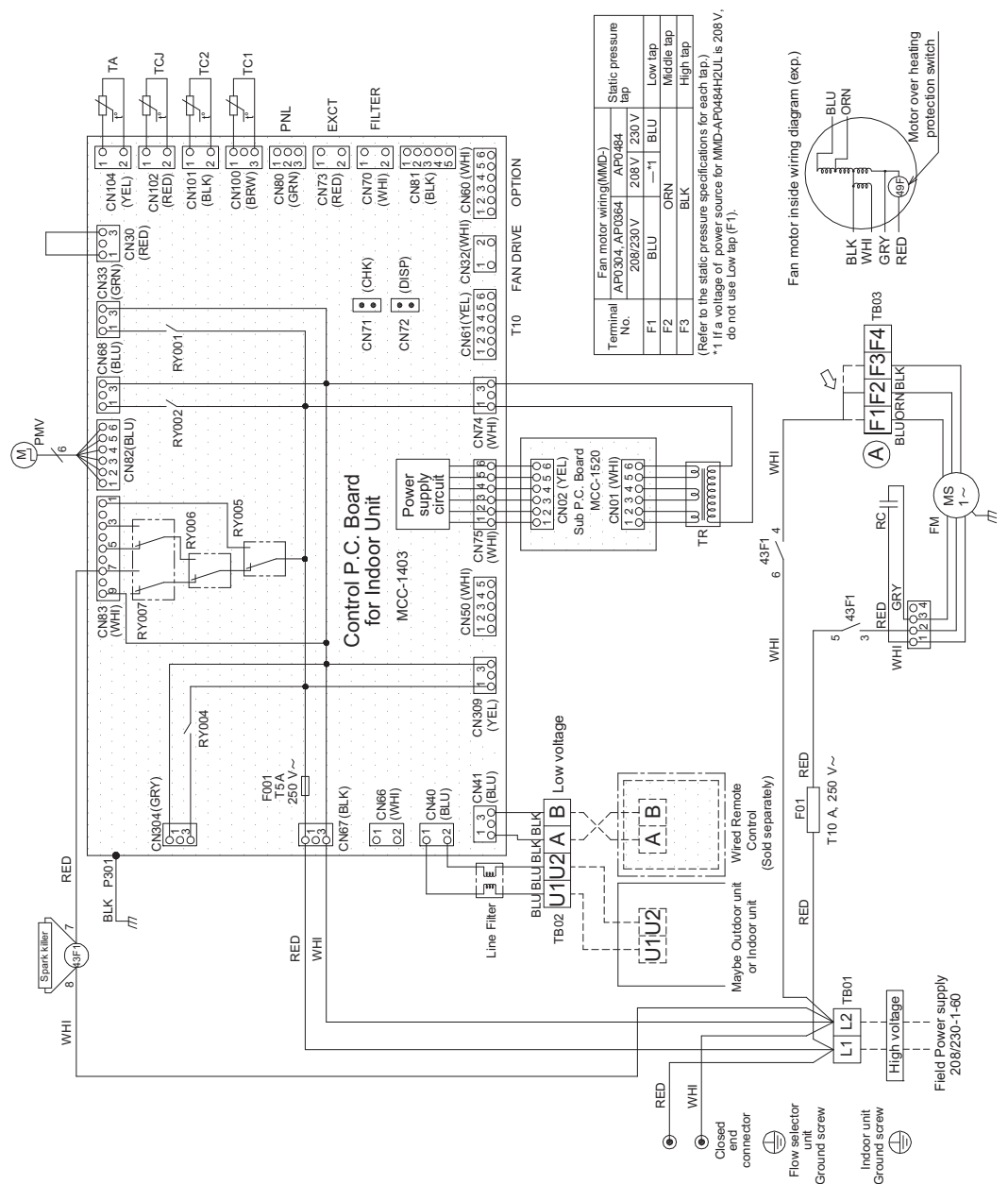


### 4. Piping diagram








## 5. Wiring diagram

MMD-AP0304H2UL, AP0364H2UL, AP0484H2UL



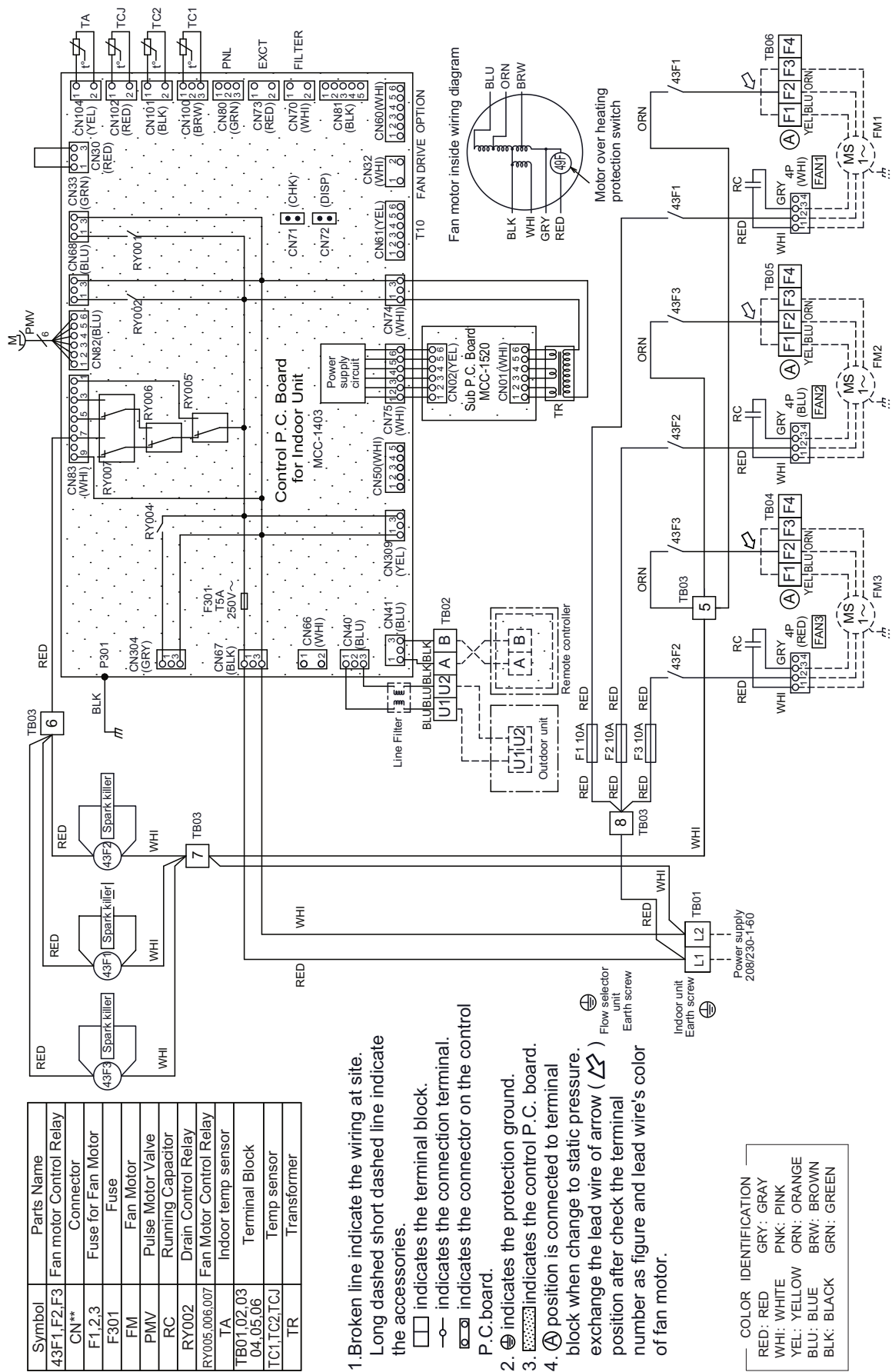
Symbol	Parts Name
43F1	Fan motor Control Relay
CN**	Connector
F01	Fuse
F001	Fuse
FM	Fan Motor
PMV	Pulse Motor Valve
RC	Running Capacitor
RY005,006,007	Fan Motor Control Relay
TA	Indoor temp sensor
TB01,02,03	Terminal Block
TC1,TC2,TCJ	Temp sensor
TR	Transformer

1. Broken line indicates the wiring at site.  
Long dashed short dashed line indicate the accessories.
2.  indicates the terminal block.
3. —○— indicates the connection terminal.
4.  indicates the connector on the control P.C. board.
5.  indicates the protection ground.
6.  indicates the control P.C. board.
7. (A) position is connected to terminal block when change to static pressure.
8. exchange the lead wire of arrow(  ) position after check the terminal number as figure and lead wire's color of fan motor.

— COLOR IDENTIFICATION —

RED : RED	GRY : GRAY
WHI : WHITE	PNK : PINK
YEL : YELLOW	ORN : ORANGE
BLU : BLUE	BRW : BROWN
BLK : BLACK	GRN : GREEN

MMD-AP0724H2UL, MMD-AP0964H2UL



## 6. Electrical current characteristics

Type	Model	Nominal Voltage (V-Ph-Hz)	Voltage Range (V)		Power consumption kW	FLA A	MCA A	MOCP A
			Min	Max				
High Static Ducted type	MMD-AP0304H2UL	208/230-1-60	187	253	0.38/0.41	2.34	2.93	15
	MMD-AP0364H2UL	208/230-1-60	187	253	0.38/0.41	2.34	2.93	15
	MMD-AP0484H2UL	208/230-1-60	187	253	0.35/0.41	2.92	3.65	15
	MMD-AP0724H2UL	208/230-1-60	187	253	1.37/1.44	7.12	8.91	15
	MMD-AP0964H2UL	208/230-1-60	187	253	1.20/1.63	8.34	10.43	15

MCA: Minimum Circuit Amps

FLA: Full Load Amps

MOCP: Maximum Overcurrent Protection (Amps)



## 7. Sensible capacity table

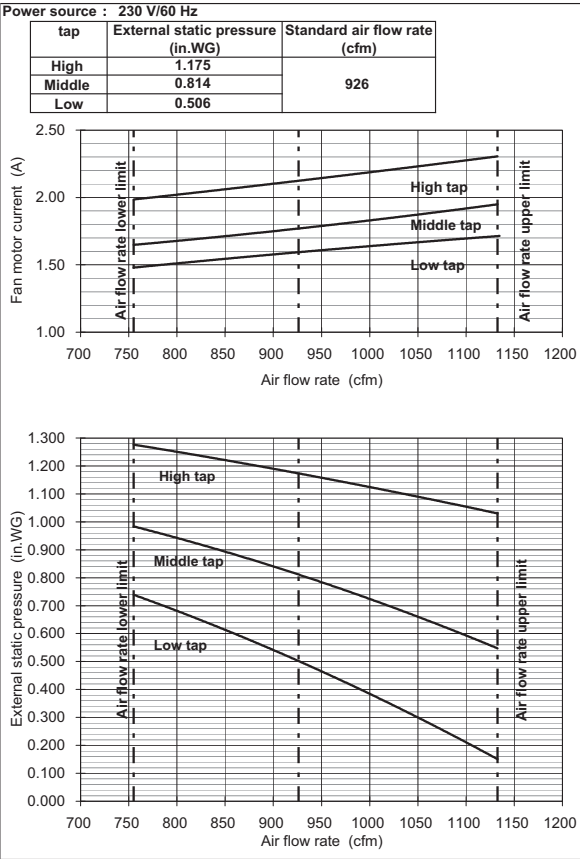
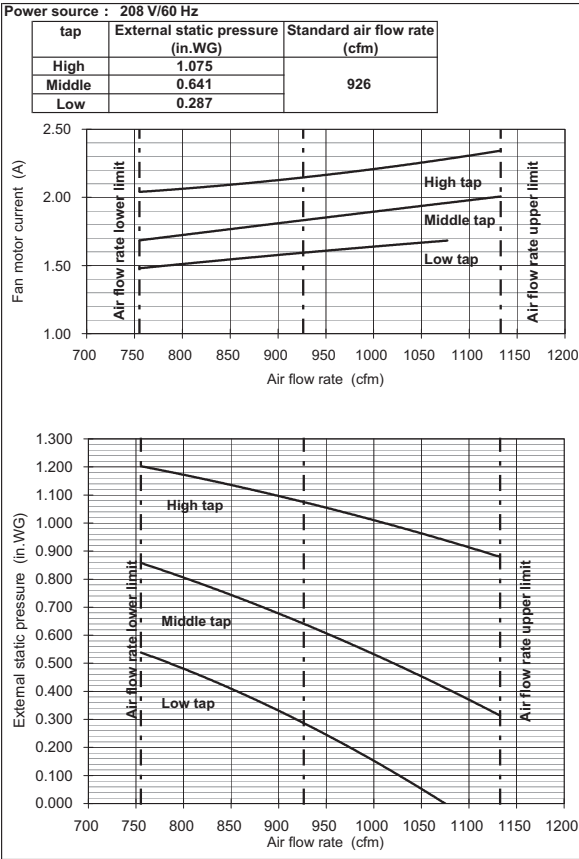
High Static Ducted type (MMD-AP\*\*\*4H2UL)

TC: Total capacity [Btu/h] SHC: Sensible capacity [Btu/h]

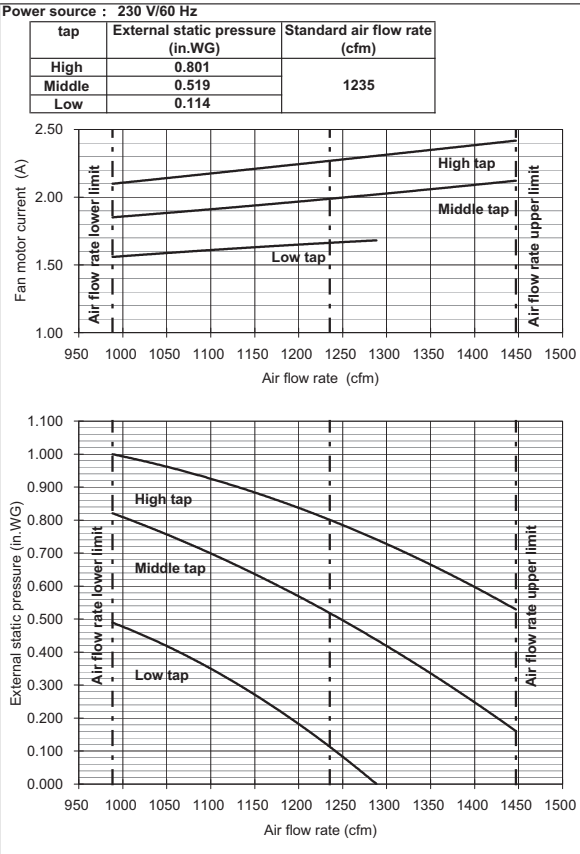
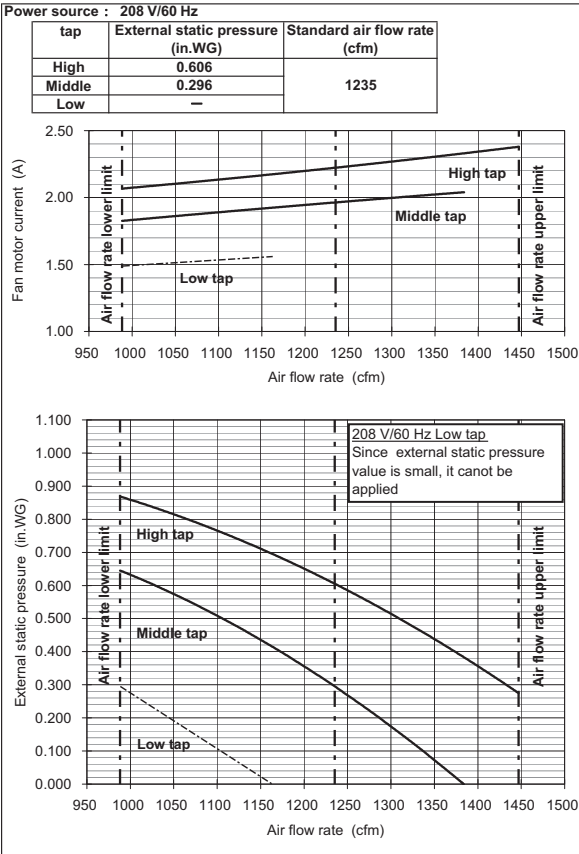
unit size	outdoor air temp. °FDB	indoor air temp.													
		59 °FWB		61 °FWB		64 °FWB		67 °FWB		68 °FWB		72 °FWB		75 °FWB	
		71 °FDB		73 °FDB		77 °FDB		80 °FDB		82 °FDB		86 °FDB		90 °FDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
030	50	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	54	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	57	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	61	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	64	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	68	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	70	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	73	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	77	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	81	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
	84	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
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	95	24630	19550	27240	20820	29100	22120	30000	22050	30900	22050	32700	21850	34200	21340
036	50	23920	18980	26450	20220	28260	21480	29130	21410	30000	21410	31750	21220	33210	20720
	102	23350	18530	25820	19740	27590	20970	28440	20900	29290	20900	31000	20710	32420	20230
	50	29560	23310	32690	24820	34920	26360	36000	26280	37080	26280	39240	26040	41040	25430
	54	29560	23310	32690	24820	34920	26360	36000	26280	37080	26280	39240	26040	41040	25430
	57	29560	23310	32690	24820	34920	26360	36000	26280	37080	26280	39240	26040	41040	25430
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	68	29560	23310	32690	24820	34920	26360	36000	26280	37080	26280	39240	26040	41040	25430
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	84	29560	23310	32690	24820	34920	26360	36000	26280	37080	26280	39240	26040	41040	25430
	88	29560	23310	32690	24820	34920	26360	36000	26280	37080	26280	39240	26040	41040	25430
048	50	39410	32770	43580	34900	46560	37070	48000	36960	49440	36960	52320	36620	54720	35770
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	77	39410	32770	43580	34900	46560	37070	48000	36960	49440	36960	52320	36620	54720	35770
	81	39410	32770	43580	34900	46560	37070	48000	36960	49440	36960	52320	36620	54720	35770
	84	39410	32770	43580	34900	46560	37070	48000	36960	49440	36960	52320	36620	54720	35770
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	91	39410	32770	43580	34900	46560	37070	48000	36960	49440	36960	52320	36620	54720	35770
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072	50	59110	42460	65380	45230	69840	48030	72000	47890	74160	47890	78480	47450	82080	46350
	54	59110	42460	65380	45230	69840	48030	72000	47890	74160	47890	78480	47450	82080	46350
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	70	59110	42460	65380	45230	69840	48030	72000	47890	74160	47890	78480	47450	82080	46350
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	81	59110	42460	65380	45230	69840	48030	72000	47890	74160	47890	78480	47450	82080	46350
	84	59110	42460	65380	45230	69840	48030	72000	47890	74160	47890	78480	47450	82080	46350
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	102	56040	40250	61980	42880	66210	45530	68260	45400	70300	45400	74400	44980	77810	43940

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
096	50	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	54	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	57	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
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	68	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	70	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	73	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	77	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
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	88	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	91	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	95	78820	55630	87170	59250	93120	62930	96000	62740	98880	62740	104640	62160	109440	60720
	99	76530	54020	84640	57530	90420	61110	93220	60920	96010	60920	101610	60360	106270	58960
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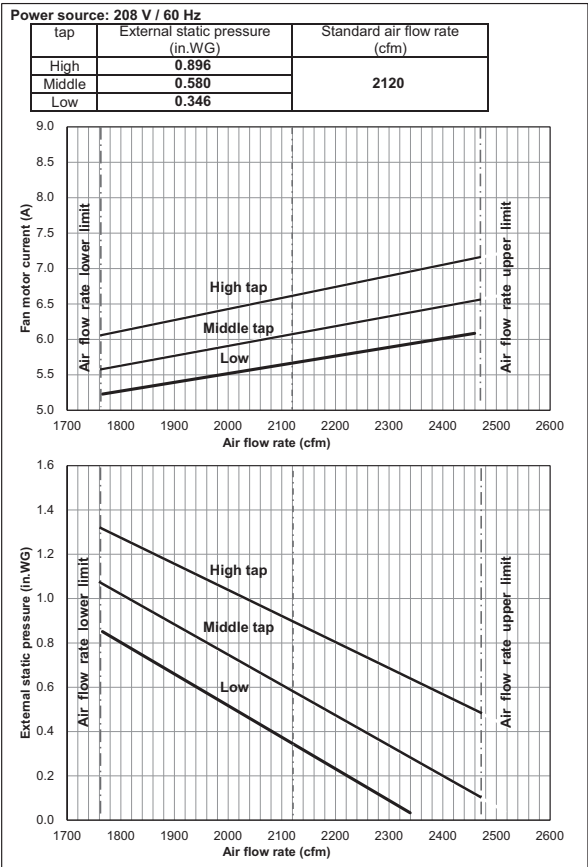
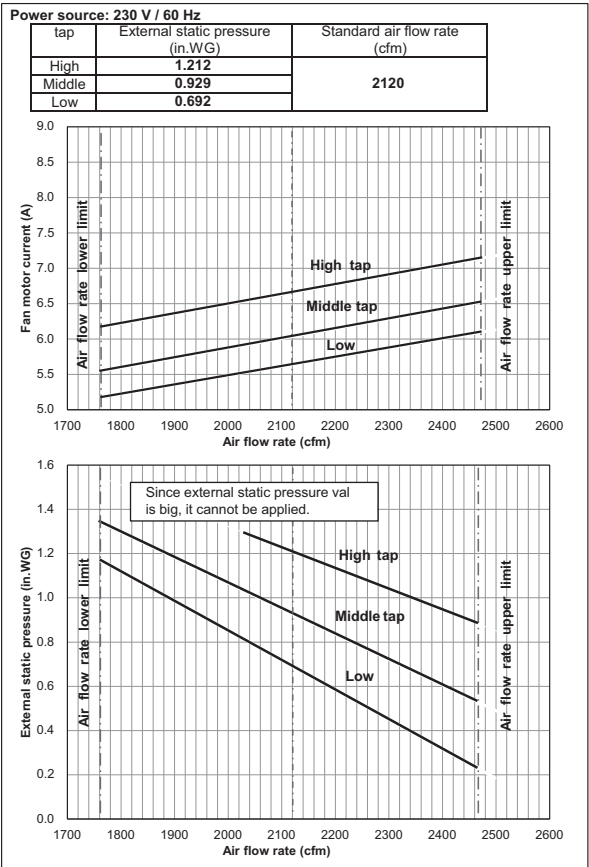
8. Fan characteristics  
MMD-AP0304H2UL, AP0364H2UL



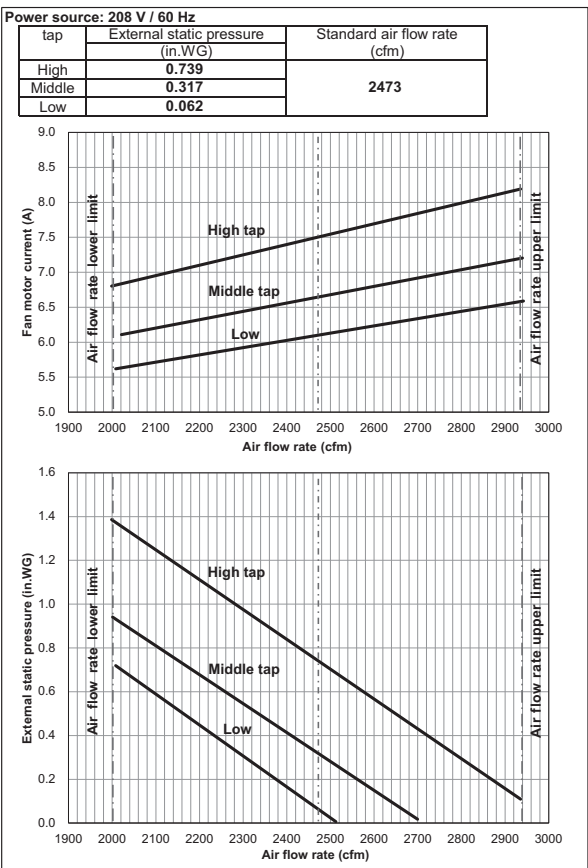
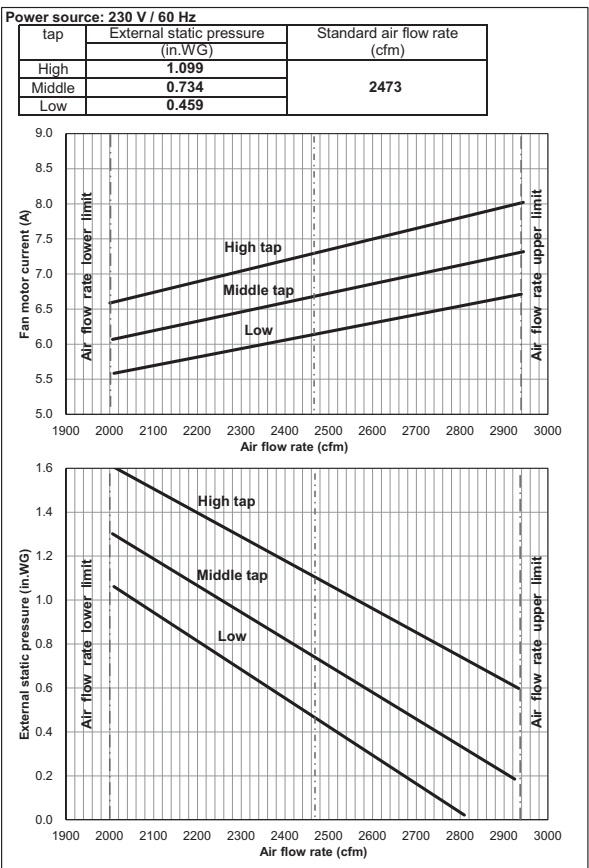
MMD-AP0484H2UL



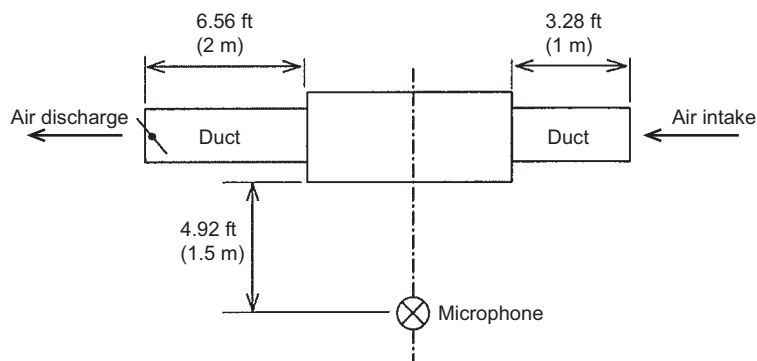
MMD-AP0724H2UL



MMD-AP0964H2UL

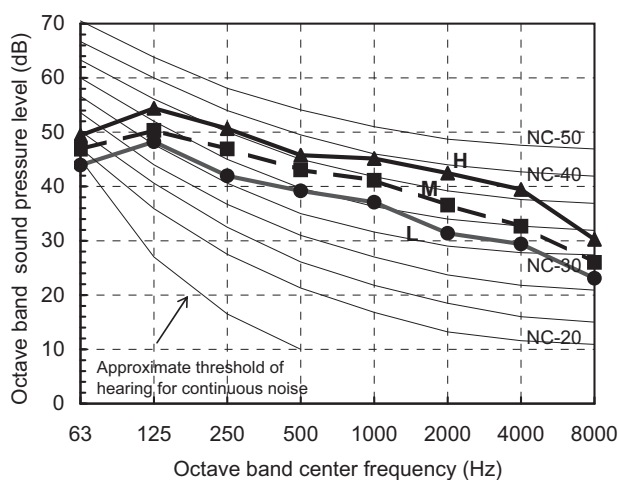


## 9. Sound data



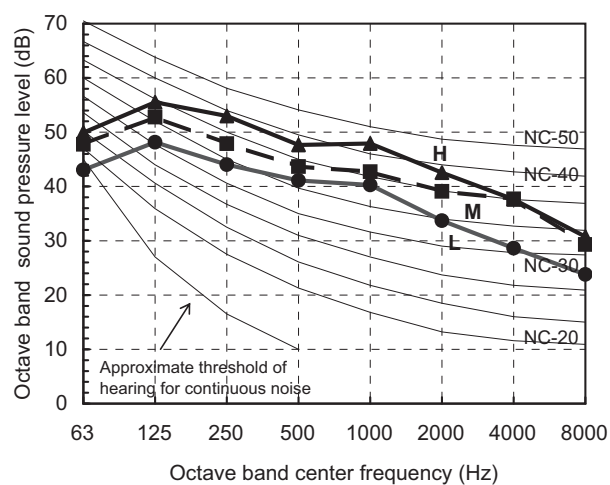
MMU-AP0304H2UL, AP0364H2UL (208 V)

Fan tap	H	M	L
Sound pressure level (dB(A))	49.5	45	41



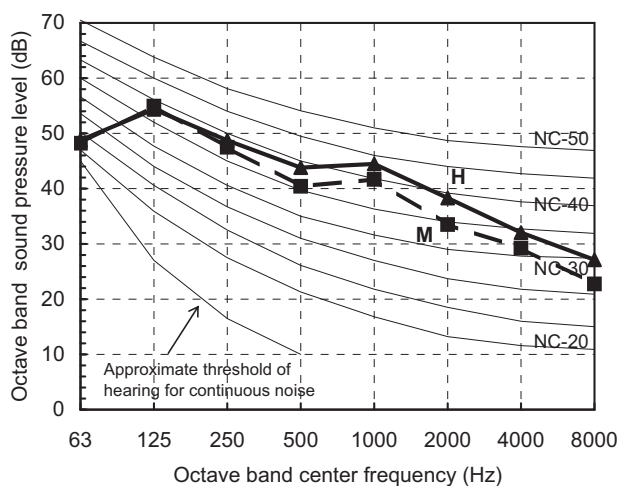
MMU-AP0304H2UL, AP0364H2UL (230 V)

Fan tap	H	M	L
Sound pressure level (dB(A))	51	47	43



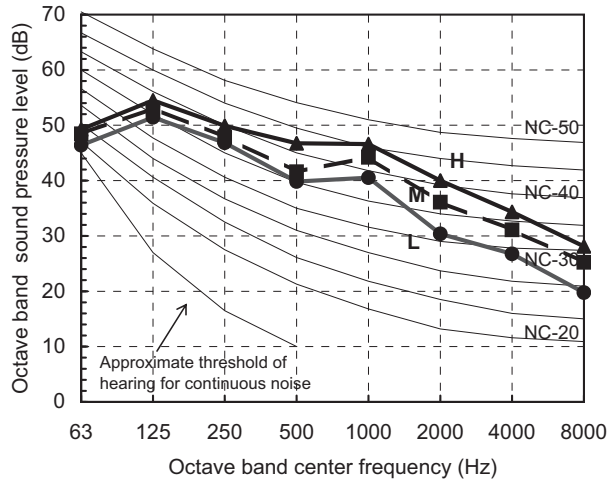
MMU-AP0484H2UL (208 V)

Fan tap	H	M	L
Sound pressure level (dB(A))	47	44	-



MMU-AP0484H2UL (230 V)

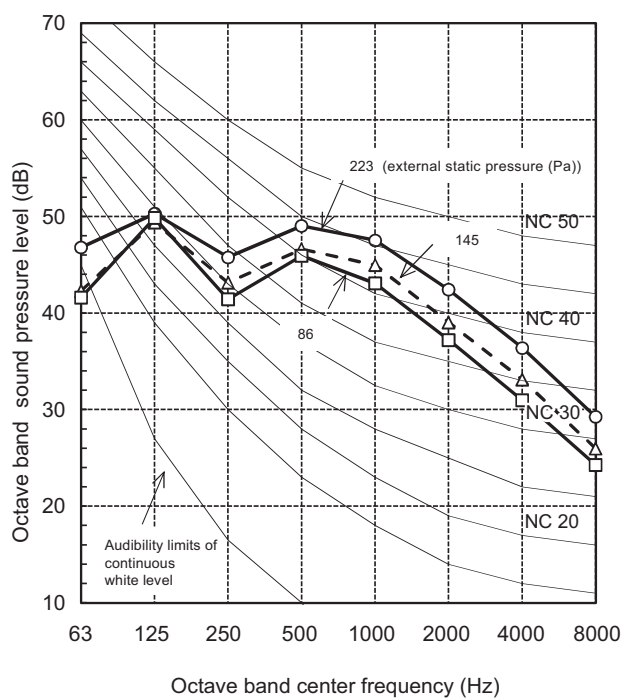
Fan tap	H	M	L
Sound pressure level (dB(A))	49	46	43



MMD-AP0724H2UL (208 V)

MMD-AP0964H2UL (208 V)

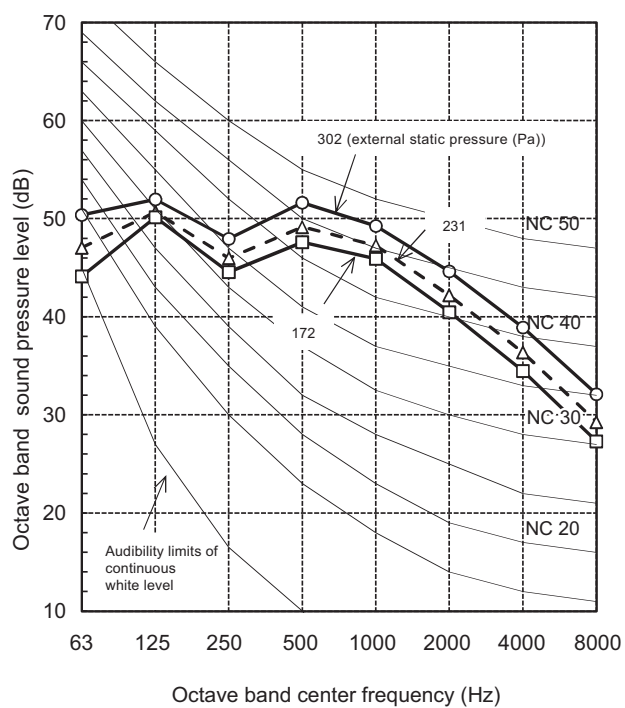
Outside still pressure	223 (Pa)	145 (Pa)	86 (Pa)
Sound pressure level (dB(A))	51	49	47



MMD-AP0724H2UL (230 V)

MMD-AP0964H2UL (230 V)

Outside still pressure	302 (Pa)	231 (Pa)	172 (Pa)
Sound pressure level (dB(A))	53	51	50



[illegible]

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## **High Static Ducted type Engineering Data Book**

Model name:

**MMD-AP\_\_4H2UL**

March, 2016 First Edition

**TOSHIBA CARRIER CORPORATION**