

Engineering Data Book



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OUTSIDE AIR BASIC INFORMATION

External Appearance



Fig. 1 —40VMA036/048/054---3



Fig. 2 —40VMA072/096---3

Specifications

Table 1 —Data Table

MODEL			40VMA036---3	40VMA048---3
Power supply		V/Ph/Hz	208/230-1-60	
Cooling capacity *1		Btu/h	36,000	48,000
Heating capacity *1		Btu/h	24,000	30,000
Electrical Supply	MCA	A	5.7	6.3
	MOCP	A	15.0	15.0
Casing			Galvanized Steel Plate	
Filter			Included	
Dimensions (H x W x D)		in.	16-1/2 x 51-3/16 x 27-3/16	
Net Weight		lbs.	161.4	
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum Fin	
Blower / Motor	Fan Type		Centrifugal	
	Motor Type		DC	
	Air Flow Rate (H/M/L)	CFM	588/529/441	647/559/471
	Motor Output	W	750	
Sound Pressure Level *2		Cooling		
		H	49.5	50.4
		M	47.8	47.8
		L	43.8	43.4
		Heating		
		H	49.3	49.9
		M	47.7	47.5
		L	43.8	42.4
Min. External Static Pressure (Factory setting)		in. WG	0.20	
Max. External Static Pressure		in. WG	0.80	
Piping connections	Gas (Low) Pressure	in.	5/8	
	Liquid (High) Pressure	in.	3/8	
	Condensate	in.	1	
Condensate Lift		in.	27-1/2	
Refrigerant Control			Electronic Expansion Valve	
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery	
Wiring	Power Wiring	AWG	Sized per NEC and Local Codes based on Nameplate Electrical Data 2-core stranded shielded cable 18AWG	
	Control Wiring	AWG		
Operating Range	Cooling	°F	41~109	
	Heating	°F	23~109	

NOTE:

*1 Rated Conditions:

Cooling: Outdoor air temperature 91°F DB/82°F WB setting temperature 64°F

Heating: Outdoor air temperature 32°F DB/26°F WB setting temperature 77°F

*2 These values are measured in anechoic chamber.

Table 2 —Data Table

MODEL			40VMA054---3	40VMA072---3
Power supply		V/Ph/Hz	208/230-1-60	
Cooling capacity *1		Btu/h	53,500	72,000
Heating capacity *1		Btu/h	36,000	47,000
Electrical Supply	MCA	A	6.9	8.5
	MOCP	A	15.0	15.0
Casing			Galvanized Steel Plate	
Filter			Included	
Dimensions (H x W x D)		in.	16-1/2 x 51-3/16 x 27-3/16	20 x 56-11/16 x 36-3/8
Net Weight		lbs.	161.4	255.7
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum Fin	
Blower / Motor	Fan Type		Centrifugal	
	Motor Type		DC	
	Air Flow Rate (H/M/L)	CFM	765/647/529	1059/971/882
	Motor Output	W	750	750*2
Sound Pressure Level *2		Cooling		
		H	51.4	52.1
		M	47.8	50.0
		L	43.9	48.5
		Heating		
		H	50.5	51.8
		M	47.5	49.5
		L	43.7	47.6
Min. External Static Pressure (Factory setting)		in. WG	0.20	
Max. External Static Pressure		in. WG	0.80	1.00
Piping connections	Gas (Low) Pressure	in.	5/8	7/8
	Liquid (High) Pressure	in.	3/8	3/8
	Condensate	in.	1	1-5/8
Condensate Lift		in.	27-1/2	-
Refrigerant Control			Electronic Expansion Valve	
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery	
Wiring	Power Wiring	AWG	Sized per NEC and Local Codes based on Nameplate Electrical Data	
	Control Wiring	AWG	2-core stranded shielded cable 18AWG	
Operating Range	Cooling	°F	41~109	
	Heating	°F	23~109	

NOTE:

*1 Rated Conditions:

Cooling: Outdoor air temperature 91°F DB/82°F WB setting temperature 64°F

Heating: Outdoor air temperature 32°F DB/26°F WB setting temperature 77°F

*2 These values are measured in anechoic chamber.

Table 3 —Data Table

MODEL			40VMA096---3
Power supply		V/Ph/Hz	208/230-1-60
Cooling capacity *1		Btu/h	96,000
Heating capacity *1		Btu/h	59,000
Electrical Supply	MCA	A	10.0
	MOCP	A	15.0
Casing			Galvanized Steel Plate
Filter			Included
Dimensions (H x W x D)		in.	20 x 56-11/16 x 36-3/8
Net Weight		lbs.	255.7
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum Fin
Blower / Motor	Fan Type		Centrifugal
	Motor Type		DC
	Air Flow Rate (H/M/L)	CFM	1294/1176/1029
	Motor Output	W	750*2
Sound Pressure Level *2		Cooling	
		H	53.5
		M	50.8
		L	47.7
		Heating	
		H	53.3
		M	50.8
		L	47.2
Min. External Static Pressure (Factory setting)		in. WG	0.20
Max. External Static Pressure		in. WG	1.00
Piping connections	Gas (Low) Pressure	in.	7/8
	Liquid (High) Pressure	in.	3/8
	Condensate	in.	1-5/8
Condensate Lift		in.	-
Refrigerant Control			Electronic Expansion Valve
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery
Wiring	Power Wiring	AWG	Sized per NEC and Local Codes based on Nameplate Electrical Data
	Control Wiring	AWG	2-core stranded shielded cable 18AWG
Operating Range	Cooling	°F	41~109
	Heating	°F	23~109

NOTE:

*1 Rated Conditions:

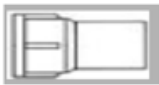
Cooling: Outdoor air temperature 91°F DB/82°F WB setting temperature 64°F

Heating: Outdoor air temperature 32°F DB/26°F WB setting temperature 77°F

*2 These values are measured in anechoic chamber.

Accessories

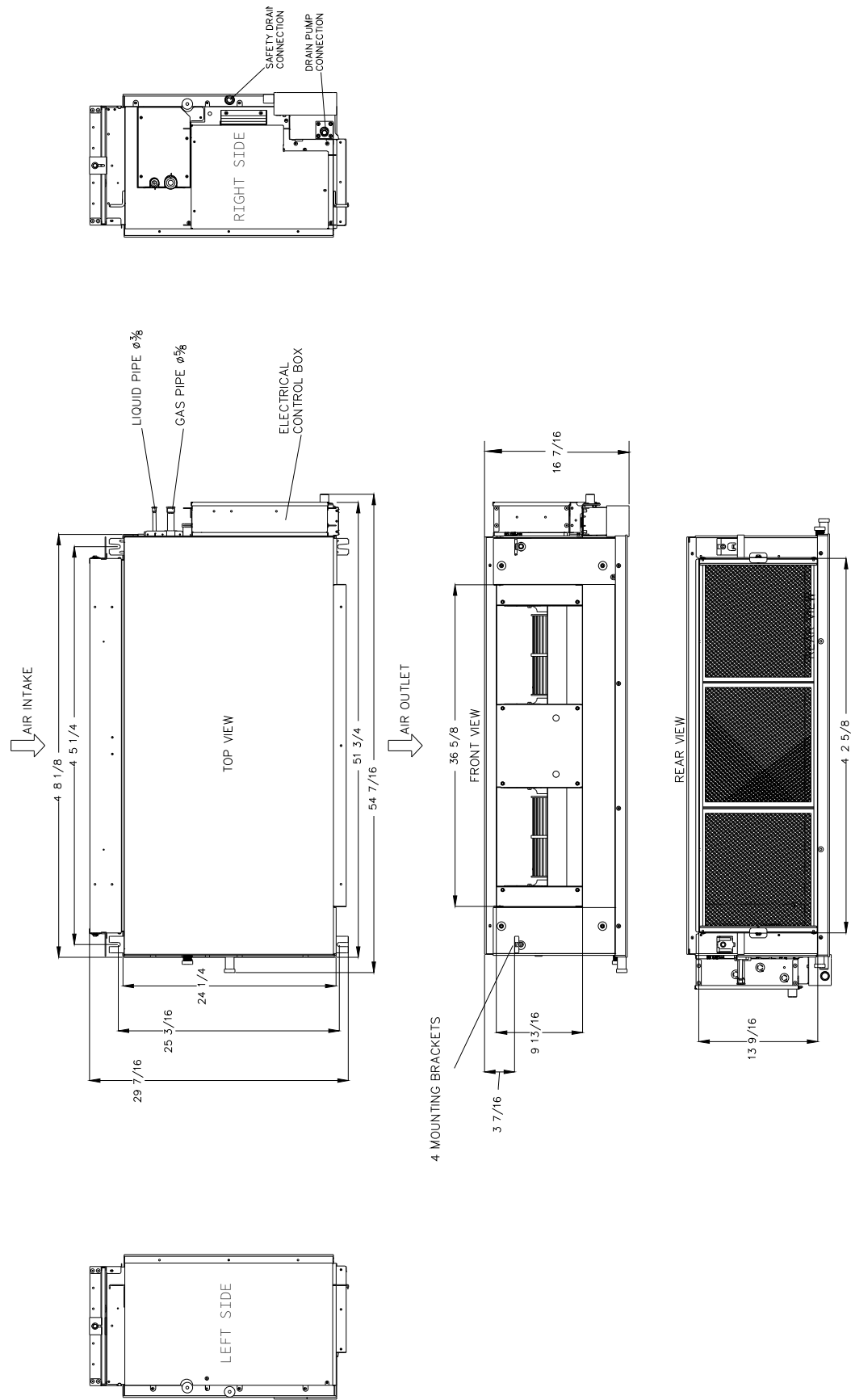
Table 4 —Table of Accessories

ACCESSORIES	OUTLINE	QUANTITY	USAGE
PQ connection wire		2	Connects the outdoor unit, indoor unit, and sub MDC
Pipe Insulation material		2	Heat insulation
Condensate connection		1	For drainage
Clamp		1	Connects the drain hose to the condensate connection
Adhesive tape for seal		1	Connects the drain hose to the condensate connection
Condensate connection		1	For drainage
Copper Nut		1	Use for pipe connection
Copper Pipe		2	Use for inlet and outlet connections
Connection Wire		1	Occupy sensor connecting wire
LED Display Panel		1	Operation and error display

LEGEND:

MDC – Multi-port Distribution Controller

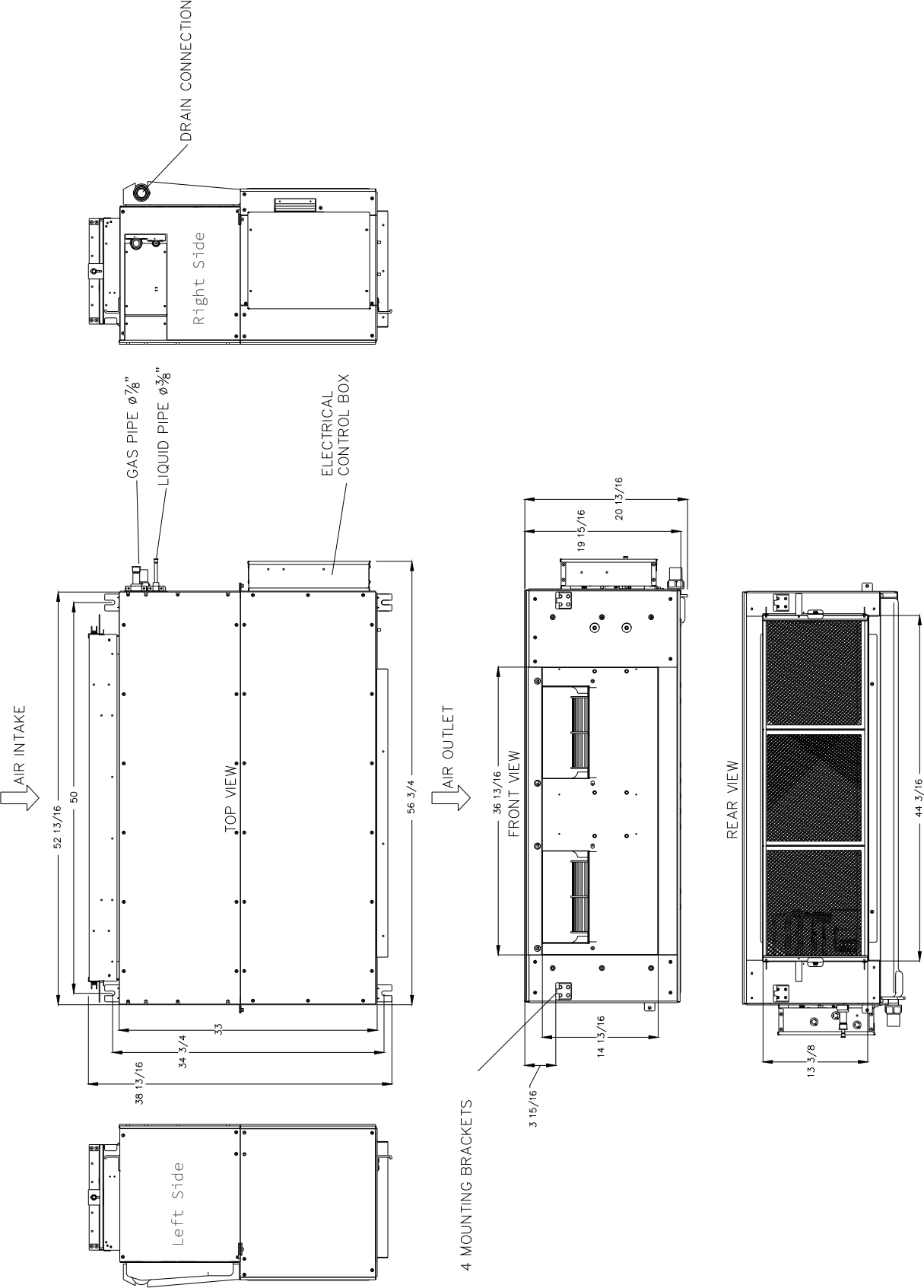
DIMENSIONS



NOTE: All dimensions are shown in inches.

Fig. 3 —40VMA036/048/054—3

DIMENSIONS (CONT.)



NOTE: All dimensions are shown in inches.

Fig. 4 —40VMA072/096

PIPING DIAGRAM

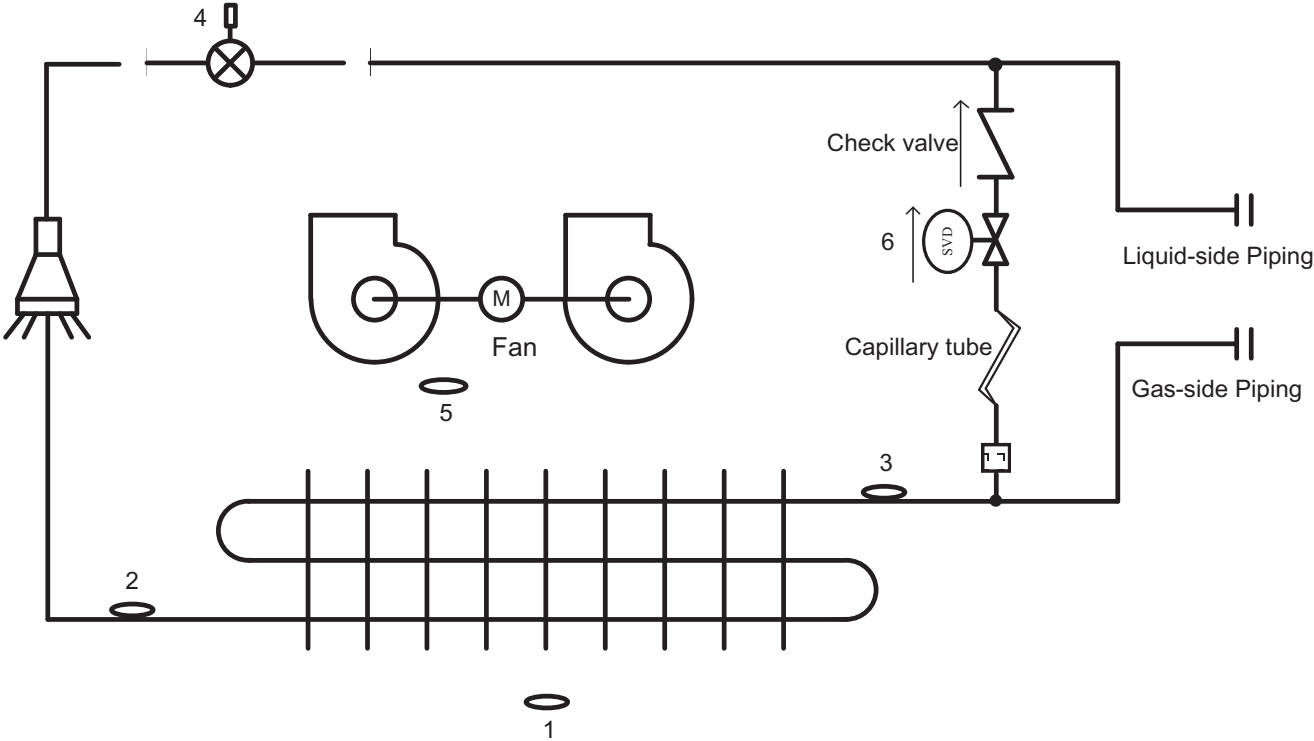


Fig. 5 —Piping

Table 5 —Piping

NUMBER	SYMBOL	NAME
1	T0	Suction air sensor
2	T2A	Inlet pipe temperature sensor
3	T2B	Outlet pipe temperature sensor
4	EEV	Electronic expansion valve
5	TA	Outlet air temperature sensor
6	SVD	Solenoid valve (prevents refrigerant from trapping in the heat exchanger)

Table 6 —Gas / Liquid Line Sizes

MODEL	GAS	LIQUID
40VMA036/048/054---3	5/8	3/8
40VMA072/096---3	7/8	3/8

WIRING DIAGRAMS

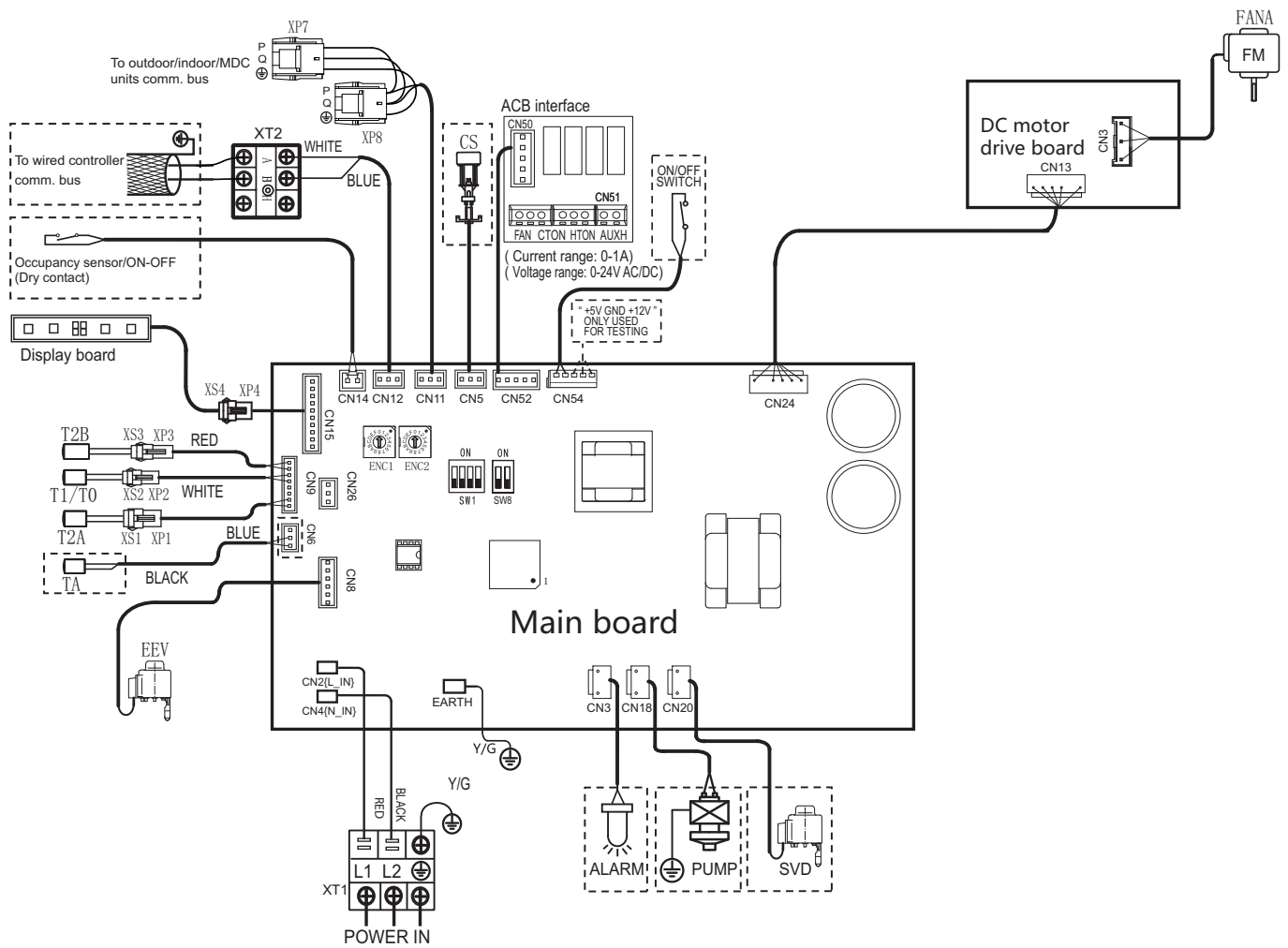


Fig. 6 —40VMA036, 048, 054---3

Wiring Diagram Definitions and Settings (40VMA036 to 054---3)

Table 7 —Code / Title

CODE	TITLE
FM	Indoor Fan Motor
T1/T0	Room Temperature Sensor
T2A	Inlet Pipe Temperature Sensor
T2B	Outlet Pipe Temperature Sensor
TA	Room Temperature Sensor
XP1-8	Connectors
XS1-4	
XT1-2	Terminal
PUMP	Pump Motor
GM	Swing Motor
CS	Condensate Switch
ALARM	Warning Lamp
EEV	Electronic Expansion Valve
SVD	Solenoid Valve

Table 9 —ENC1, ENC2, SW8 Definitions

	Reserved		Reserved		Reserved
					Reserved

Table 12 —Error Code / Content

ERROR CODE	ERROR CONTENT
dd	Heating/Cooling Conflict
E1	Communication Error with Outdoor Unit
E2	Temperature Sensor (T1/T0) Error
E3	Temperature Sensor (TA) Error
E4	Temperature Sensor (T2B) Error
E5	Temp Sensor (T2A) Error
E6	DC Fan Error
E7	EEPROM Error
UU	MDC Error in Auto System-Check Mode
E9	Communication Error with Wired Controller
Eb	EEV Error
EC	Indoor Fan Error in Auto System-Check Mode
Ed	Outdoor Unit Error
EE	Condensate Error
FE	No Address when Power On for First Time

Table 8 —SW1 Definition

	0 means auto addressing mode (Default)
	1 means factory test mode (Default)
	0 means normal mode (Default)
	1 means factory self-checking mode (Reserved)
	(Reserved)
	0 means standard indoor unit (Default)
	1 means main indoor unit (Must be addressed #63)

Table 10 —J1 Definition

	Without jumper “J1” for auto restart function
	With jumper “J1” for manual restart function

Table 11 —0/1 Definition

	Means 0
	(Reserved)

WIRING DIAGRAMS (CONT.)

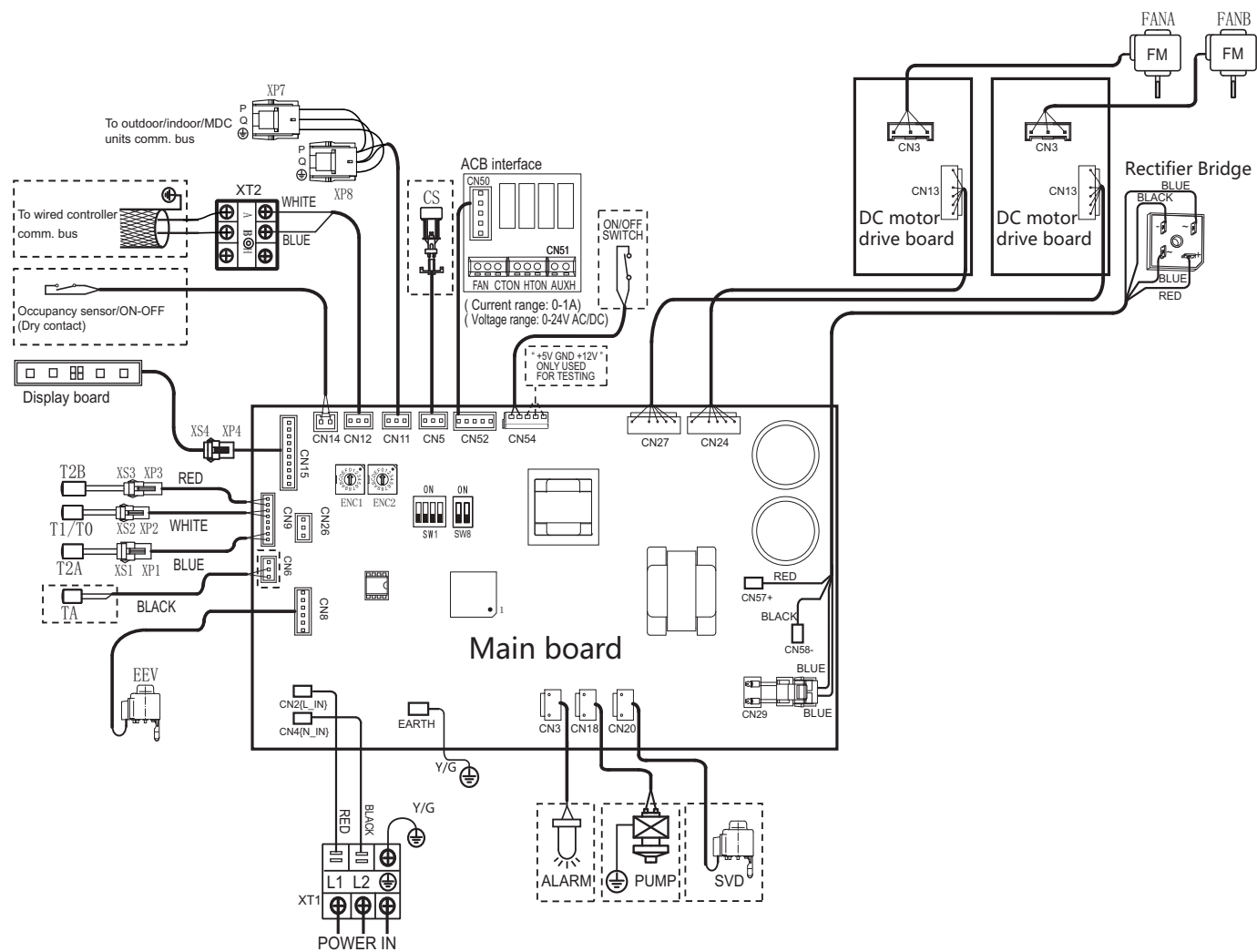


Fig. 7 —40VMA072, 096---3

WIRING DIAGRAM DEFINITIONS (40VMA072-096)

Table 13 —Code / Title

CODE	TITLE
FM	Indoor Fan Motor
T1/T0	Room Temperature Sensor
T2A	Inlet Pipe Temperature Sensor
T2B	Outlet Pipe Temperature Sensor
TA	Room Temperature Sensor
XP1-8	Connectors
XS1-4	
XT1-2	Terminal
PUMP	Pump Motor
GM	Swing Motor
CS	Condensate Switch
ALARM	Warning Lamp
EEV	Electronic Expansion Valve
SVD	Solenoid Valve

Table 14 —SW1 Definition

	0 means auto addressing mode (Default)
	1 means factory test mode (Default)
	0 means normal mode (Default)
	1 means factory self-checking mode (Reserved)
	(Reserved)
	0 means standard indoor unit (Default)
	1 means main indoor unit (Must be addressed #63)

Table 15 —ENC1, ENC2, SW8 Definitions

 ENC1	Reserved	 ENC2	Reserved	 SW8	Reserved
				 SW8	Reserved

Table 16 —J1 Definition

 J1	Without jumper "J1" for auto restart function
 J1	With jumper "J1" for manual restart function

Table 17 —0/1 Definition

	Means 0
	(Reserved)

Table 18 —Error Code / Content

ERROR CODE	ERROR CONTENT
dd	Heating/Cooling Conflict
E1	Communication Error with Outdoor Unit
E2	Temperature Sensor (T1/T0) Error
E3	Temperature Sensor (TA) Error
E4	Temperature Sensor (T2B) Error
E5	Temp Sensor (T2A) Error
E6	DC Fan Error
E7	EEPROM Error
UU	MDC Error in Auto System-Check Mode
E9	Communication Error with Wired Controller
Eb	EEV Error
EC	Indoor Fan Error in Auto System-Check Mode
Ed	Outdoor Unit Error
EE	Condensate Error
FE	No Address when Power On for First Time

ELECTRICAL CHARACTERISTICS

Table 19 —Electrical Characteristics

MODEL	POWER SUPPLY					IFM	
	HZ	VOLTS	VOLTAGE RANGE	MCA	MOCP	kW	FLA
40VMA036---3	60	208/230V	Max.253V Min.187V	5.7	15	0.75	4.5
40VMA048---3				6.3	15	0.75	5.0
40VMA054---3				6.9	15	0.75	5.5
40VMA072---3				8.5	15	0.75*2	3.7 + 3.8
40VMA096---3				10.0	15	0.75*2	4.4*2

MCA: Minimum Circuit Amps (A)

MOCP: Maximum Overcurrent Protection (A)

SYMBOLS: W: Fan Motor Rated Output (kW)

FLA: Full Load Amps (A)

IFM: Indoor Fan Motor

FAN PERFORMANCE

There are 16 external static pressure (ESP) settings for 40VMA036, 048, 054---3; and 21 ESPs for the 072 and 096 models.

The figures on the left show Max. ESP, Mid. ESP, and Min. ESP as an example of fan characteristics.

The tables on the right show air flows at H-Speed in each ESP for field setting. Allowable ESP selections are listed in the first column. Select the ESP setting according to the connected duct resistance.

The controller can be used to change the indoor unit fan speed H, M, or L.

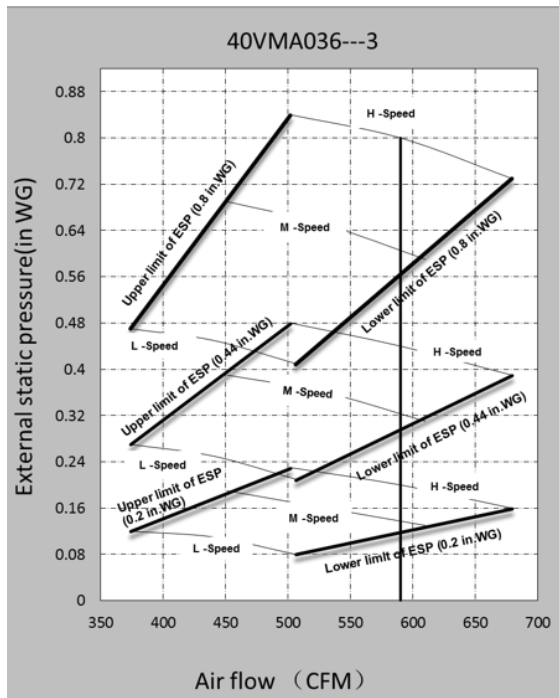


Fig. 8 —Fan Performance 036

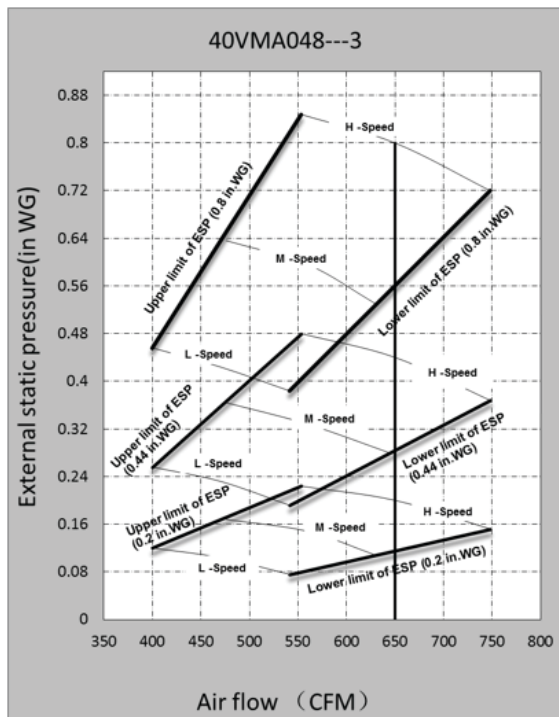


Fig. 9 —Fan Performance 048

Table 20 —Fan Performance 036A

External Static Pressure	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Rating Point		Min Point	
		Max CFM	SP	Mid CFM	SP	Min CFM	SP
0.20	H	676	0.16	588	0.20	500	0.23
0.24	H	676	0.20	588	0.24	500	0.27
0.28	H	676	0.24	588	0.28	500	0.31
0.32	H	676	0.28	588	0.32	500	0.35
0.36	H	676	0.32	588	0.36	500	0.39
0.40	H	676	0.36	588	0.40	500	0.43
0.44	H	676	0.39	588	0.44	500	0.48
0.48	H	676	0.43	588	0.48	500	0.52
0.52	H	676	0.47	588	0.52	500	0.56
0.56	H	676	0.50	588	0.56	500	0.60
0.60	H	676	0.54	588	0.60	500	0.64
0.64	H	676	0.57	588	0.64	500	0.68
0.68	H	676	0.61	588	0.68	500	0.72
0.72	H	676	0.65	588	0.72	500	0.76
0.76	H	676	0.69	588	0.76	500	0.80
0.80	H	676	0.73	588	0.80	500	0.84

LEGEND:

SP — Static Pressure

Table 21 —Fan Performance 048

External Static Pressure	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP	Mid CFM	SP	Min CFM	SP
0.20	H	744	0.15	647	0.20	550	0.22
0.24	H	744	0.19	647	0.24	550	0.26
0.28	H	744	0.23	647	0.28	550	0.30
0.32	H	744	0.27	647	0.32	550	0.34
0.36	H	744	0.31	647	0.36	550	0.38
0.40	H	744	0.34	647	0.40	550	0.43
0.44	H	744	0.37	647	0.44	550	0.48
0.48	H	744	0.41	647	0.48	550	0.52
0.52	H	744	0.45	647	0.52	550	0.56
0.56	H	744	0.49	647	0.56	550	0.60
0.60	H	744	0.53	647	0.60	550	0.64
0.64	H	744	0.57	647	0.64	550	0.68
0.68	H	744	0.60	647	0.68	550	0.73
0.72	H	744	0.64	647	0.72	550	0.77
0.76	H	744	0.68	647	0.76	550	0.81
0.80	H	744	0.72	647	0.80	550	0.85

LEGEND

ESP — External Static Pressure

SP — Static Pressure

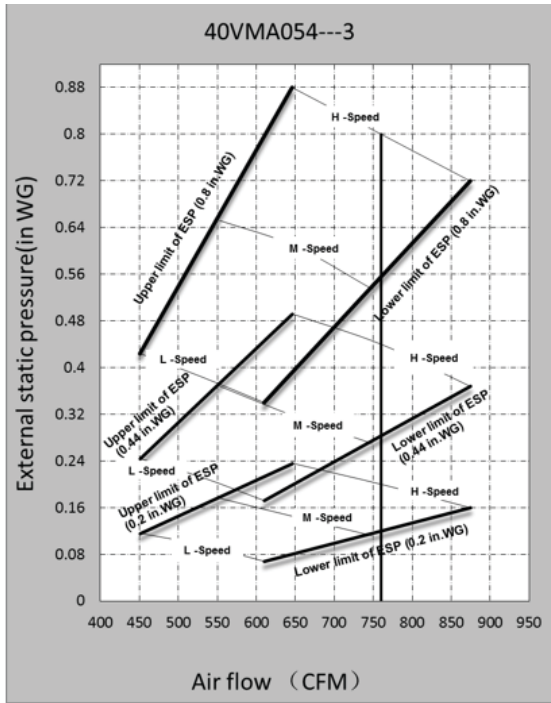


Fig. 10 —Fan Performance 054

Table 22 —Fan Performance 054

External Static Pressure	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP	Mid CFM	SP	Min CFM	SP
0.20	H	880	0.16	765	0.20	650	0.24
0.24	H	880	0.20	765	0.24	650	0.28
0.28	H	880	0.24	765	0.28	650	0.32
0.32	H	880	0.28	765	0.32	650	0.36
0.36	H	880	0.31	765	0.36	650	0.40
0.40	H	880	0.34	765	0.40	650	0.44
0.44	H	880	0.37	765	0.44	650	0.49
0.48	H	880	0.41	765	0.48	650	0.53
0.52	H	880	0.45	765	0.52	650	0.57
0.56	H	880	0.49	765	0.56	650	0.61
0.60	H	880	0.53	765	0.60	650	0.66
0.64	H	880	0.57	765	0.64	650	0.71
0.68	H	880	0.60	765	0.68	650	0.76
0.72	H	880	0.64	765	0.72	650	0.80
0.76	H	880	0.68	765	0.76	650	0.84
0.80	H	880	0.72	765	0.80	650	0.88

LEGEND

ESP — External Static Pressure

SP — Static Pressure

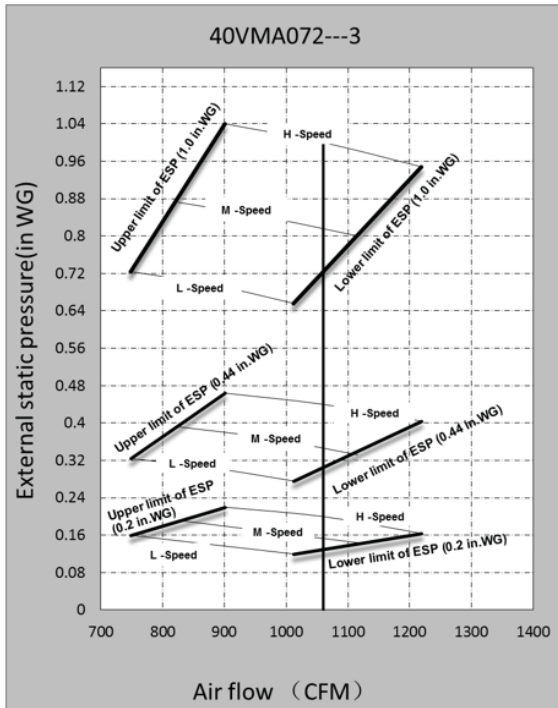


Fig. 11 —Fan Performance 072

Table 23 —Fan Performance 072

External Static Pressure	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP	Mid CFM	SP	Min CFM	SP
0.20	H	1218	0.16	1059	0.20	900	0.22
0.24	H	1218	0.20	1059	0.24	900	0.26
0.28	H	1218	0.24	1059	0.28	900	0.30
0.32	H	1218	0.28	1059	0.32	900	0.34
0.36	H	1218	0.32	1059	0.36	900	0.38
0.40	H	1218	0.36	1059	0.40	900	0.42
0.44	H	1218	0.40	1059	0.44	900	0.46
0.48	H	1218	0.44	1059	0.48	900	0.50
0.52	H	1218	0.48	1059	0.52	900	0.54
0.56	H	1218	0.52	1059	0.56	900	0.58
0.60	H	1218	0.56	1059	0.60	900	0.62
0.64	H	1218	0.60	1059	0.64	900	0.66
0.68	H	1218	0.64	1059	0.68	900	0.70
0.72	H	1218	0.68	1059	0.72	900	0.75
0.76	H	1218	0.71	1059	0.76	900	0.80
0.80	H	1218	0.75	1059	0.80	900	0.84
0.84	H	1218	0.79	1059	0.84	900	0.88
0.88	H	1218	0.83	1059	0.88	900	0.92
0.92	H	1218	0.87	1059	0.92	900	0.96
0.96	H	1218	0.91	1059	0.96	900	1.00
1.00	H	1218	0.95	1059	1.00	900	1.04

LEGEND

ESP — External Static Pressure

SP — Static Pressure

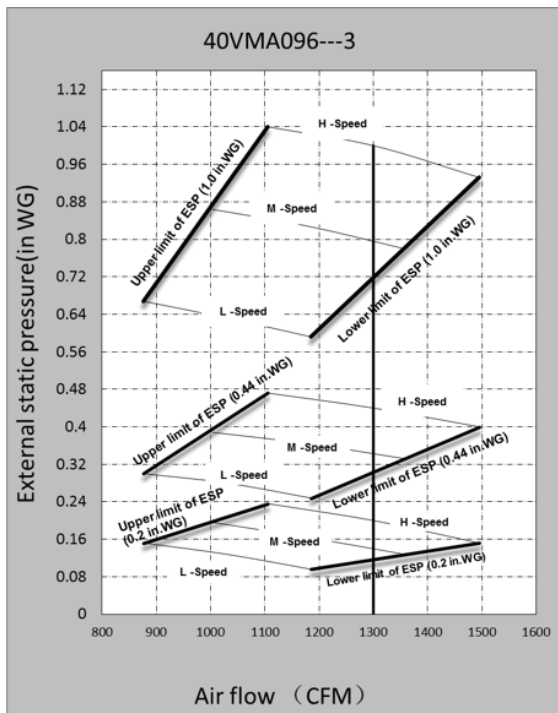


Fig. 12 —Fan Performance 096

Table 24 —Fan Performance 096

External Static Pressure	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP	Mid CFM	SP	Min CFM	SP
0.20	H	1488	0.15	1294	0.20	1100	0.24
0.24	H	1488	0.19	1294	0.24	1100	0.28
0.28	H	1488	0.23	1294	0.28	1100	0.32
0.32	H	1488	0.27	1294	0.32	1100	0.36
0.36	H	1488	0.31	1294	0.36	1100	0.40
0.40	H	1488	0.35	1294	0.40	1100	0.44
0.44	H	1488	0.40	1294	0.44	1100	0.47
0.48	H	1488	0.44	1294	0.48	1100	0.51
0.52	H	1488	0.48	1294	0.52	1100	0.55
0.56	H	1488	0.52	1294	0.56	1100	0.59
0.60	H	1488	0.56	1294	0.60	1100	0.63
0.64	H	1488	0.60	1294	0.64	1100	0.67
0.68	H	1488	0.64	1294	0.68	1100	0.71
0.72	H	1488	0.67	1294	0.72	1100	0.76
0.76	H	1488	0.70	1294	0.76	1100	0.80
0.80	H	1488	0.73	1294	0.80	1100	0.84
0.84	H	1488	0.77	1294	0.84	1100	0.88
0.88	H	1488	0.81	1294	0.88	1100	0.92
0.92	H	1488	0.85	1294	0.92	1100	0.96
0.96	H	1488	0.89	1294	0.96	1100	1.00
1.00	H	1488	0.93	1294	1.00	1100	1.04

LEGEND

ESP — External Static Pressure

SP — Static Pressure

NOTES FOR FIG. 9 - 13:

1. All fan curves show examples of fan characteristics of the MAX. ESP, Rating ESP, and MIN. ESP.
2. All tables show air flows at "H-Speed" for each ESP setting. ESP settings are listed in the first column of each table.
3. Select ESP setting according to the resistance of the connected duct.
4. A controller can be used to change the indoor unit fan speed to H, M, or L.

SOUND DATA

Sound Pressure Levels

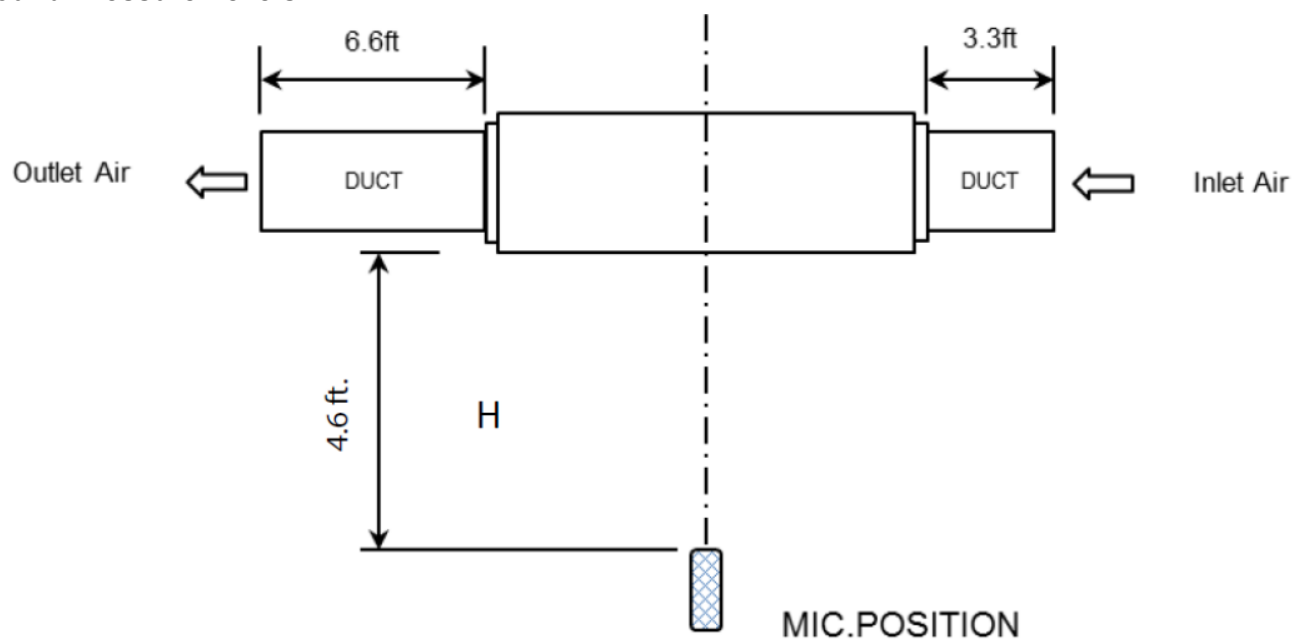


Fig. 13 —Overall Sound Levels

Table 25 —Cooling Mode

MODEL	H	M	L
40VMA036---3	49.5	47.8	43.8
40VMA048---3	50.4	47.8	43.4
40VMA054---3	51.4	47.8	53.9
40VMA072---3	52.1	50.0	48.5
40VMA096---3	53.5	50.8	47.7

Table 26 —Heating Mode

MODEL	H	M	L
40VMA036---3	49.3	47.7	43.8
40VMA048---3	49.9	47.5	42.4
40VMA054---3	50.5	47.5	43.7
40VMA072---3	51.8	49.5	47.6
40VMA096---3	53.3	50.8	47.2

NOTE: Units are in dBA.

NC Curves

NOTES:

External Static Pressure: 0.8 in. (200 Pa)

Power source: 208/230V-1Ph-60Hz

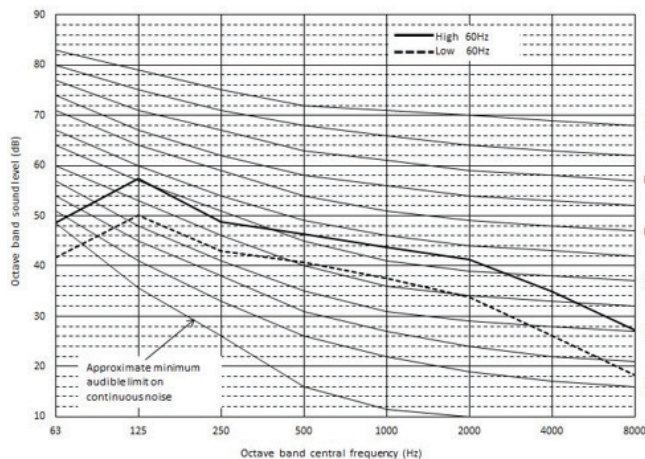


Fig. 14 —40VMA036---3

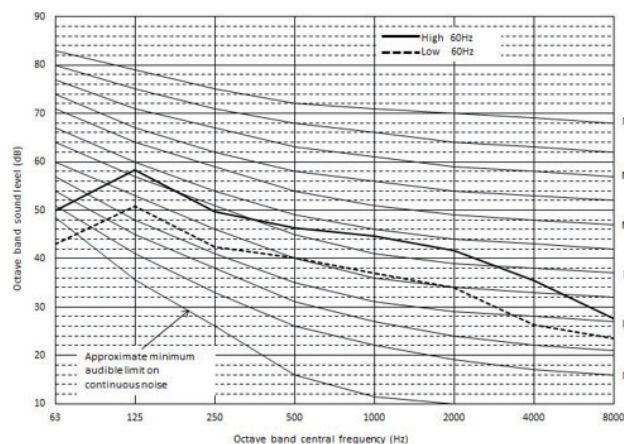


Fig. 15 —40VMA048---3

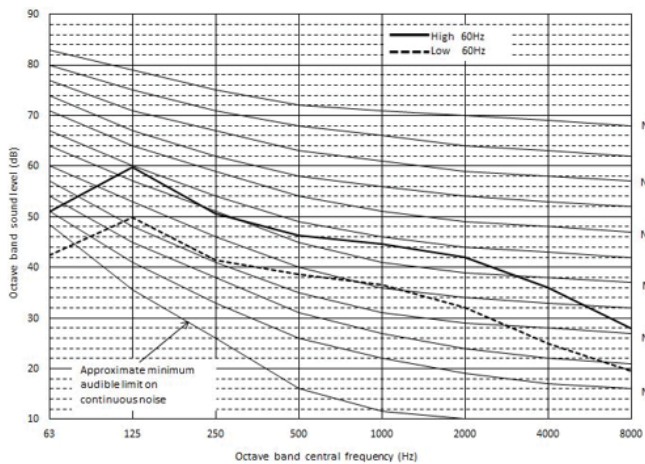


Fig. 16 —40VMA054---3

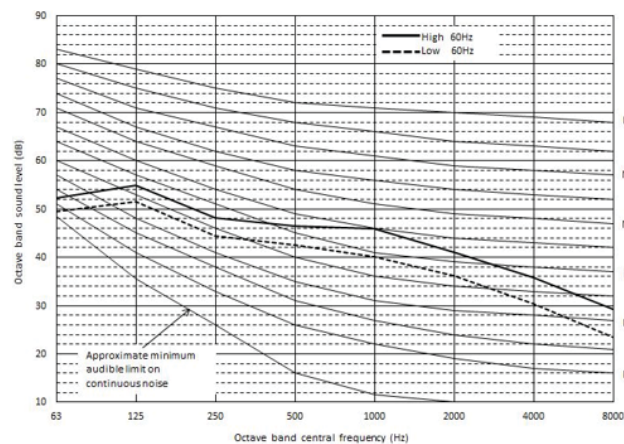


Fig. 17 —40VMA072---3

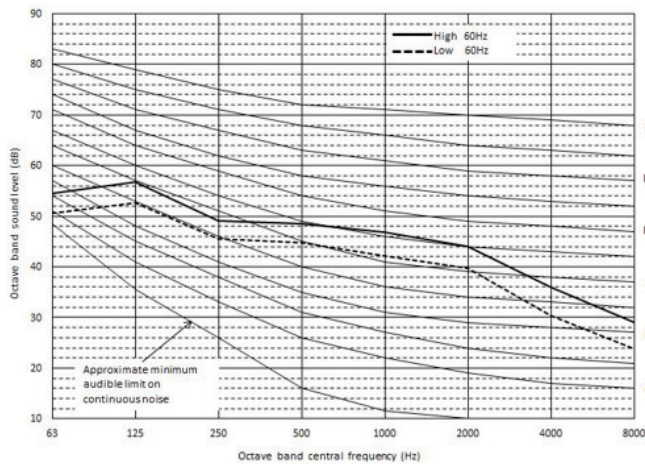


Fig. 18 —40VMA096---3

CAPACITY DATA TABLES

Table 27 —Cooling Capacity

Model	Capacity index *	Outdoor air temperature (FDB)	Outdoor air temperature (FWB)													
			63		68		73		78		82		86		90	
			TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
40VMA	36	68	21.81	10.76	/		/		/	/	/	/	/	/	/	/
		72	21.81	13.14	25.54	10.79	/		/	/	/	/	/	/	/	/
		77	21.81	16.11	25.54	13.76	29.28	11.15	/	/	/	/	/	/	/	/
		81	21.81	18.50	25.54	16.14	29.28	13.53	/	/	/	/	/	/	/	/
		84	/	/	25.54	17.93	29.28	15.32	33.01	12.47	/		/	/	/	/
		88	/	/	25.54	20.32	29.28	17.70	32.66	14.85	36.30	12.42	/	/	/	/
		91	/	/	/	/	29.28	19.49	32.14	16.64	36.00	14.21	37.20	11.08	/	/
		95	/	/	/	/	/	/	31.23	19.03	35.65	16.59	36.83	13.46	38.39	10.31
	48	68	29.08	14.35	/	/	/	/	/	/	/	/	/	/	/	/
		72	29.08	17.52	34.05	14.39	/	/	/	/	/	/	/	/	/	/
		77	29.08	21.48	34.05	18.35	39.04	14.87	/	/	/	/	/	/	/	/
		81	29.08	24.67	34.05	21.52	39.04	18.04	/	/	/	/	/	/	/	/
		84	/	/	34.05	23.91	39.04	20.43	44.01	16.63	/	/	/	/	/	/
		88	/	/	34.05	27.09	39.04	23.60	43.55	19.80	48.40	16.56	/	/	/	/
		91	/	/	/	/	39.04	25.99	42.85	22.19	48.00	18.95	49.60	14.77	/	/
		95	/	/	/	/	/	/	41.64	25.37	47.53	22.12	49.10	17.95	51.19	13.75
	54	68	32.41	15.99	/	/	/	/	/	/	/	/	/	/	/	/
		72	32.41	19.53	37.96	16.04	/	/	/	/	/	/	/	/	/	/
		77	32.41	23.94	37.96	20.45	43.51	16.57	/	/	/	/	/	/	/	/
		81	32.41	27.49	37.96	23.99	43.51	20.11	/	/	/	/	/	/	/	/
		84	/	/	37.96	26.65	43.51	22.77	49.06	18.53	/	/	/	/	/	/
		88	/	/	37.96	30.20	43.51	26.30	48.54	22.07	53.95	18.46	/	/	/	/
		91	/	/	/	/	43.51	28.96	47.76	24.73	53.50	21.12	55.28	16.47	/	/
		95	/	/	/	/	/	/	46.41	28.28	52.98	24.65	54.73	20.00	57.05	15.32
	72	68	43.62	21.52	/	/	/	/	/	/	/	/	/	/	/	/
		72	43.62	26.28	51.08	21.58	/	/	/	/	/	/	/	/	/	/
		77	43.62	32.22	51.08	27.52	58.56	22.30	/	/	/	/	/	/	/	/
		81	43.62	37.00	51.08	32.28	58.56	27.06	/	/	/	/	/	/	/	/
		84	/	/	51.08	35.86	58.56	30.64	66.02	24.94	/	/	/	/	/	/
		88	/	/	51.08	40.64	58.56	35.40	65.32	29.70	72.60	24.84	/	/	/	/
		91	/	/	/	/	58.56	38.98	64.28	33.28	72.00	28.42	74.40	22.16	/	/
		95	/	/	/	/	/	/	62.46	38.06	71.30	33.18	73.66	26.92	76.78	20.62
	96	68	58.16	28.69	/	/	/	/	/	/	/	/	/	/	/	/
		72	58.16	35.04	68.11	28.77	/	/	/	/	/	/	/	/	/	/
		77	58.16	42.96	68.11	36.69	78.08	29.73	/	/	/	/	/	/	/	/
		81	58.16	49.33	68.11	43.04	78.08	36.08	/	/	/	/	/	/	/	/
		84	/	/	68.11	47.81	78.08	40.85	88.03	33.25	/	/	/	/	/	/
		88	/	/	68.11	54.19	78.08	47.20	87.09	39.60	96.80	33.12	/	/	/	/
		91	/	/	/	/	78.08	51.97	85.70	44.37	96.00	37.89	99.20	29.55	/	/
		95	/	/	/	/	/	/	83.28	50.75	95.07	44.24	98.21	35.89	102.37	27.49

Rated Condition: Evaporation temperature is 42.8°F with high speed airflow.

TC = Total capacity; KBTU/h

SC = Sensible capacity; KBTU/h

Table 28 —Heating Capacity

Model	Capacity index *	Outdoor air temperature (FDB)	Outdoor air temperature (FWB)								
			19	23	27	32	36	39	43	50	55
			TC	TC	TC	TC	TC	TC	TC	TC	TC
40VMA	36	23	25.38	25.38	/	/	/	/	/	/	/
		32	/	/	24.00	/	/	/	/	/	/
		37	/	/	21.44	21.44	21.44	/	/	/	/
		45	/	?	/	/	17.33	17.33	17.33	/	/
		52	/	/	/	/	/	13.74	13.74	13.74	/
		59	/	/	/	/	/	/	10.15	10.15	10.15
	48	23	31.73	31.73	/	/	/	/	/	/	/
		32	/	/	30.00	/	/	/	/	/	/
		37	/	/	26.79	26.79	26.79	/	/	/	/
		45	/	/	/	/	21.67	21.67	21.67	/	/
		52	/	/	/	/	/	17.18	17.18	17.18	/
		59	/	/	/	/	/	/	12.69	12.69	12.69
	54	23	38.08	38.08	/	/	/	/	/	/	/
		32	/	/	36.00	/	/	/	/	/	/
		37	/	/	32.15	32.15	32.15	/	/	/	/
		45	/	/	/	/	26.00	26.00	26.00	/	/
		52	/	/	/	/	/	20.62	20.62	20.62	/
		59	/	/	/	/	/	/	15.23	15.23	15.23
	72	23	49.71	49.71	/	/	/	/	/	/	/
		32	/	/	47.00	/	/	/	/	/	/
		37	/	/	41.98	41.98	41.98	/	/	/	/
		45	/	/	/	/	33.94	33.94	33.94	/	/
		52	/	/	/	/	/	26.91	26.91	26.91	/
		59	/	/	/	/	/	/	19.88	19.88	19.88
	96	23	62.40	62.40	/	/	/	/	/	/	/
		32	/	/	59.00	/	/	/	/	/	/
		37	/	/	52.70	52.70	52.70	/	/	/	/
		45	/	/	/	/	42.61	42.61	42.61	/	/
		52	/	/	/	/	/	33.79	33.79	33.79	/
		59	/	/	/	/	/	/	24.96	24.96	24.96

Rated Condition: Condensation temperature is 114.8°F.

TC = Total capacity; KBTU/h