

**40VMA**  
**Outside Air Processing Unit for**  
**Variable Refrigerant Flow (VRF) Systems**

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# Engineering Data Book



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# I. Outside Air Basic information

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## 1. External Appearance



Figure 1 - 40VMA036/048/054---3



Figure 2 - 40VMA072/096---3

## 2. 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
	Control Wiring		AWG	2-core shielded twisted pair cable 16AWG or 18AWG

### NOTES:

\*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	60,000	81,000
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
	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	
	Control Wiring	AWG	2-core shielded twisted pair cable 16AWG or 18AWG	

NOTES:

\*1 Rated Condition:

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






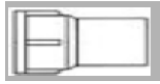




Model		40VMA096---3	
Power supply		V/Ph/Hz	208/230-1-60
Cooling capacity *1		Btu/h	96,000
Heating capacity *1		Btu/h	108,000
Electrical Supply	MCA	A	10.0
	MOCP	A	15.0
Casing		Galvanized Steel Plate	
Filter		Included	
Dimensions (H x W x D)		in.	20 x 56-11/16 x 36-3/8
Net Weight		lbs.	255.7
Heat Exchanger		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 shielded twisted pair cable 16AWG or 18AWG

**NOTES:**

- \*1 Rated Condition:  
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.

### 3. Accessories

Table 4 – Table of Accessories

Name of Accessories	Outline	Quantity	Function
PQ connection wire		2	Connects the outdoor unit, indoor unit, and sub MDC.
Pipe Insulation material		2	Heat insulation
Condensate Connection		1 (036-054)	For drainage
Clamp		1 (036-054)	Connects the drain hose to the condensate connection
Adhesive tape for seal		1 (072-096)	Connects the drain hose to the condensate connection
Condensate Connection		1 (072-096)	For drainage
Copper nut		1	For pipe connection
Copper Pipe		2 (036-054)	For inlet and outlet connection
		1 (072-096)	
Connecting Wire		1	For occupy sensor
LED Display Panel		1	Operation and error display

Legend:

MDC – Multi-port Distribution Controller

# II. Dimensions

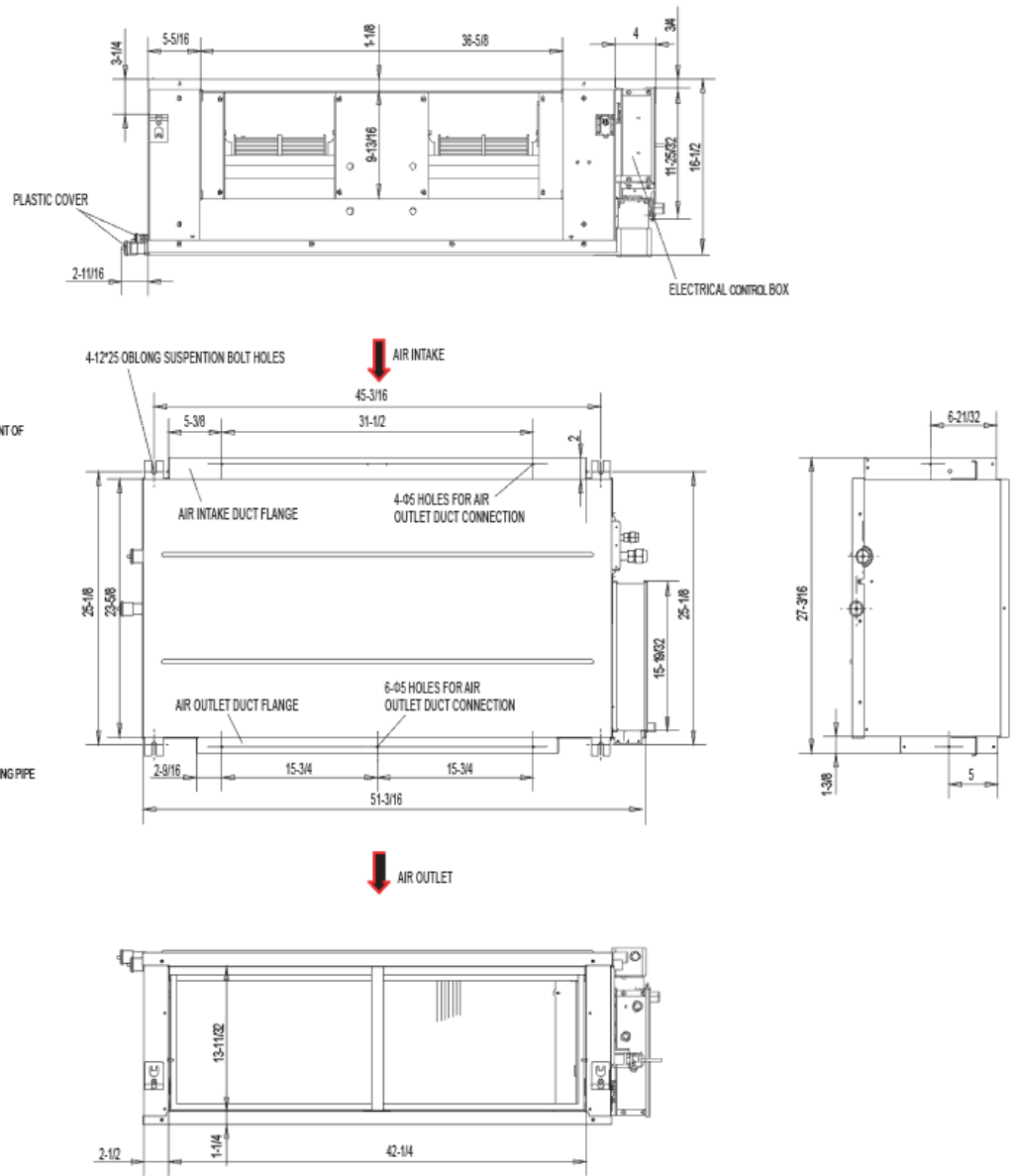


Figure 3 - 40VMA036/048/054---3

NOTE: All dimensions are shown in inches.



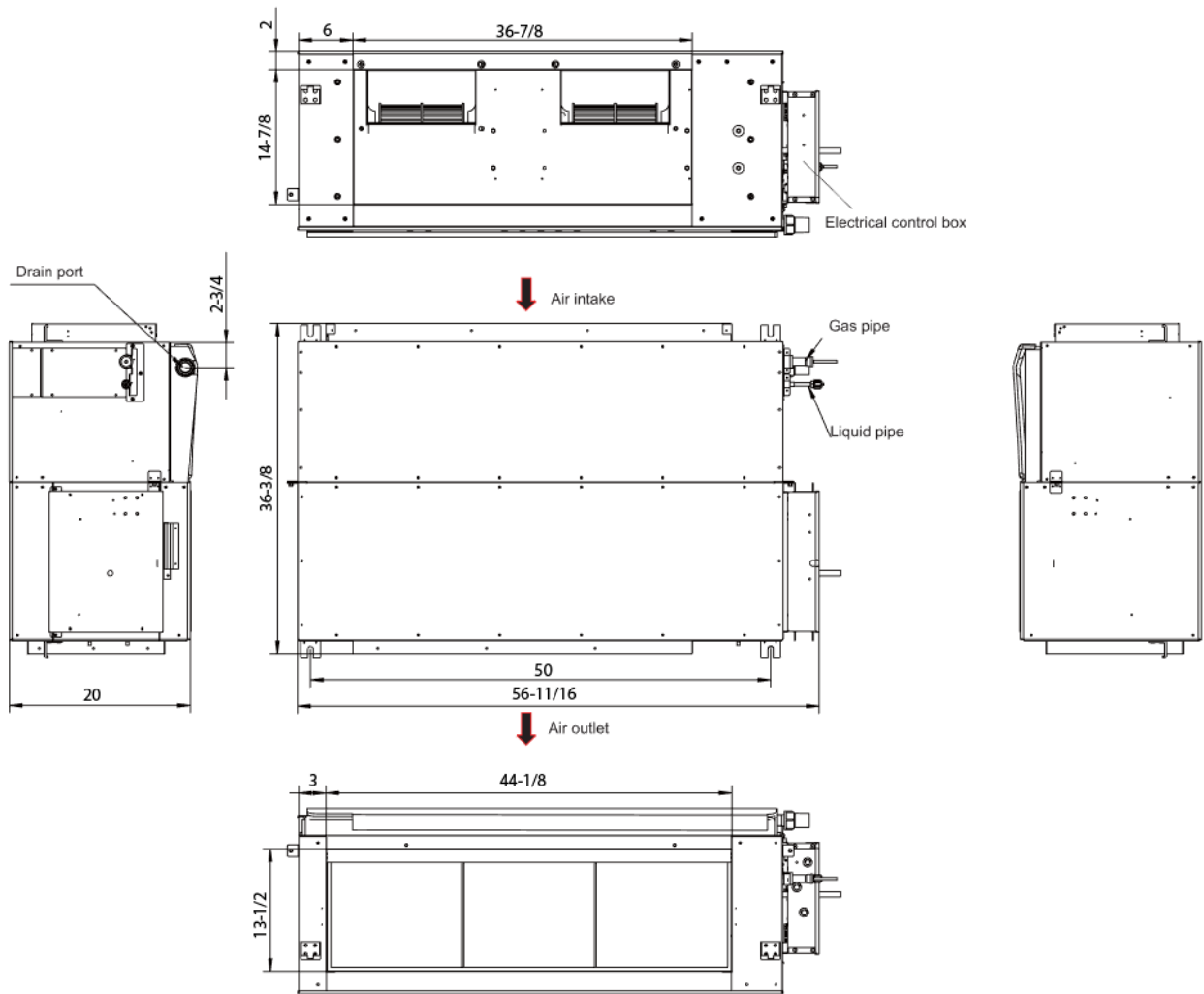


Figure 4 - 40VMA072/096---3

NOTE: All dimensions are shown in inches.

### III. Piping Diagram

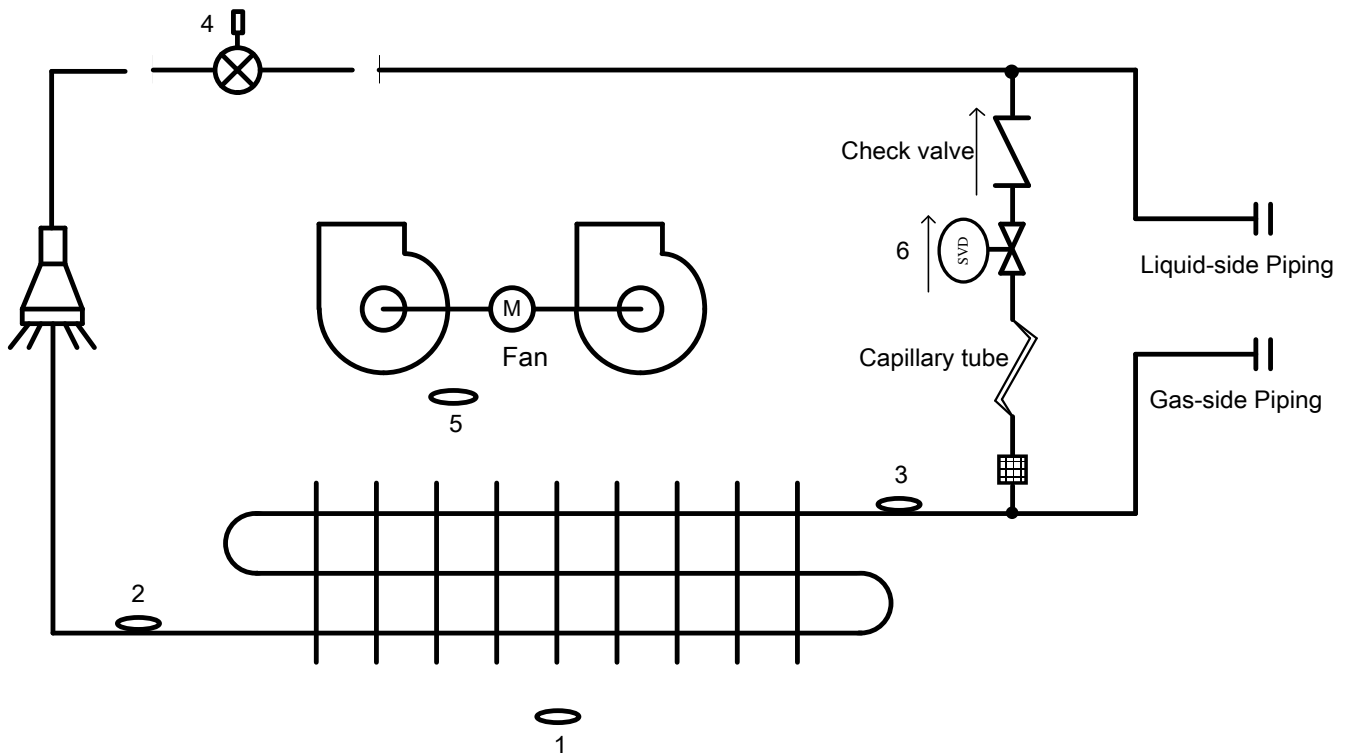


Figure 5 – Piping

Table 5 – Piping

NO.	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

# IV. Wiring Diagrams

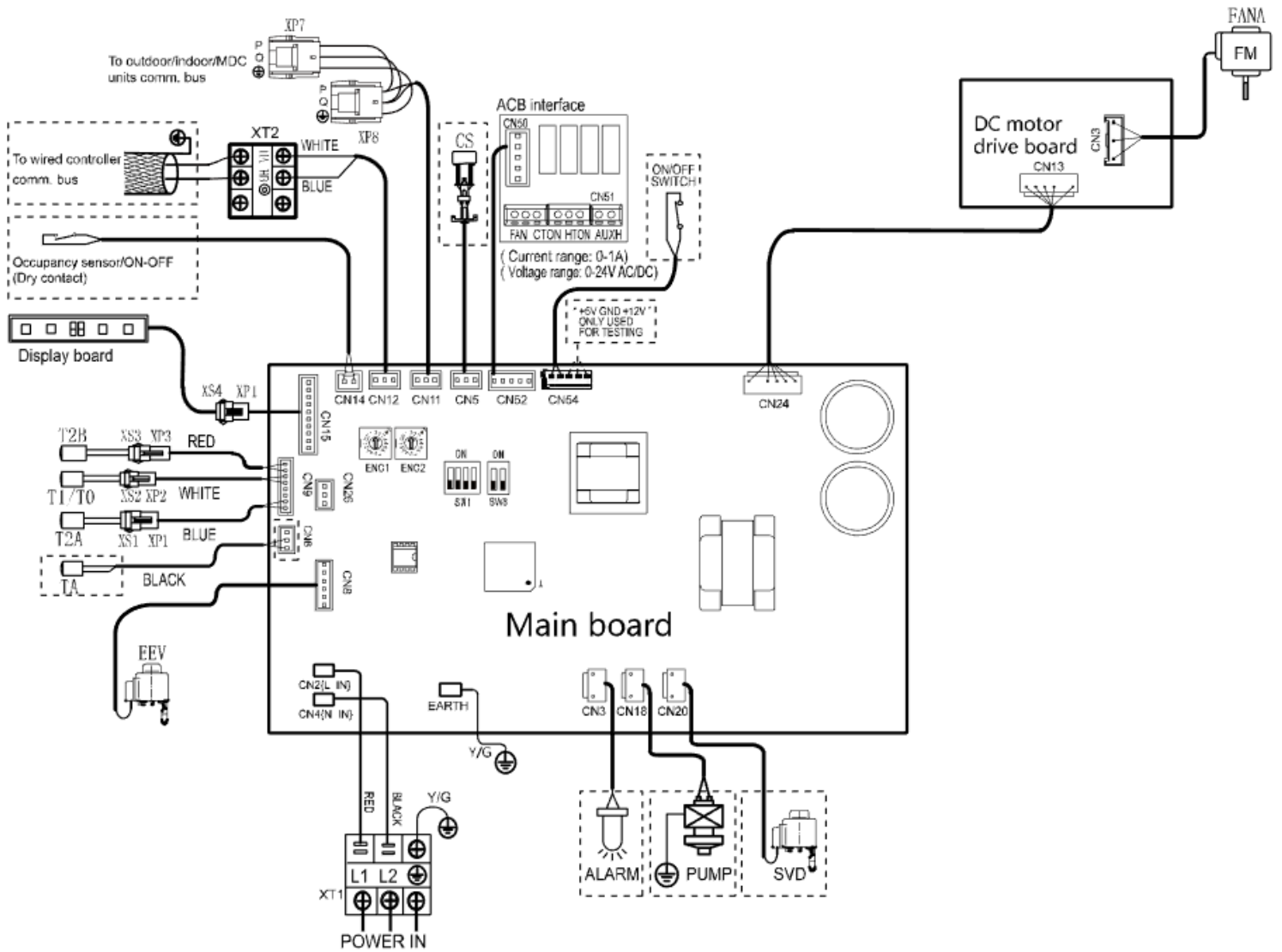


Figure 6 – 40VMH036/048/054---3

**a. 40VMH024 – 054 Wiring Diagram Definitions and Settings**

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	Connectors
XT1-2	Terminal
PUMP	Pump Motor
GM	Swing Motor
CS	Condensate Switch
ALARM	Warning Lamp
EEV	Electronic Extension Valve
SVD	Solenoid Valve

Table 8 – SW1 Definition



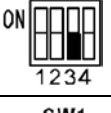


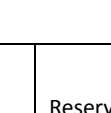
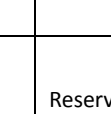
	0 means auto addressing mode (Default)
	1 means factory test mode
	0 means normal mode (Default)
	1 means factory self-checking mode
	Reserved
	0 means standard indoor unit (Default)
	1 means main indoor unit (must be addressed #63)

Table 9 – ENC1 / ENC2 / SW8 Definition




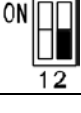
	Reserved		Reserved		Reserved
					Reserved

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
	Means 1

Table 12 – Error Code / Content

dd	Heating / Cooling Conflict
E1	Communication Error with Outdoor Unit
E2	Temperature Sensor (T0/T1) Error
E3	Temperature Sensor (TA) Error
E4	Temperature Sensor (T2B) Error
E5	Temperature 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 First Time Powered On

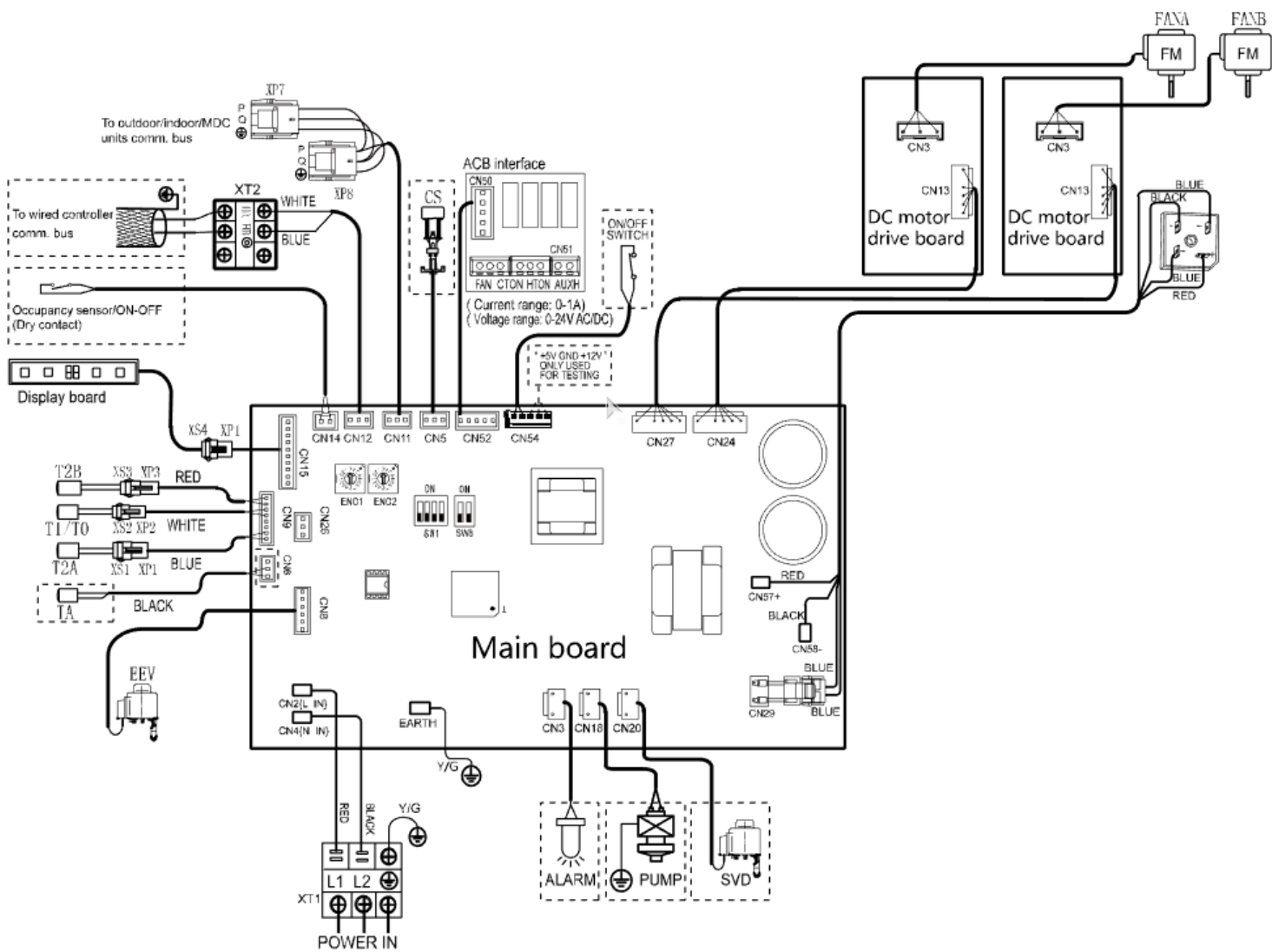


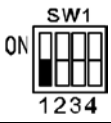
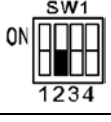



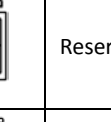

Figure 7 – Wiring Diagram 40VMA072/096---3

**b. 40VMH072 – 096 Wiring Diagram Definitions and Settings**





**Table 13 – 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	Connectors
XT1-2	Terminal
PUMP	Pump Motor
GM	Swing Motor
CS	Condensate Switch
ALARM	Warning Lamp
EEV	Electronic Extension Valve
SVD	Solenoid Valve



**Table 14 – SW1 Definition**

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



**Table 15 – ENC1, ENC2, SW8 Definitions**

	Reserved		Reserved		Reserved
					Reserved

**Table 16 – J1 Definition**

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

**Table 17 – 0/1 Definition**

	Means 0
	Means 1

**Table 18 – Error Code / Content**

dd	Heating / Cooling Conflict
E1	Communication Error with Outdoor Unit
E2	Temperature Sensor (T0/T1) Error
E3	Temperature Sensor (TA) Error
E4	Temperature Sensor (T2B) Error
E5	Temperature 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 First Time Powered On

# V. 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: KW : Fan Motor Rated Output (KW)

FLA : Full Load Amps (A)

IFM : Indoor Fan Motor

# VI. Fan Performance

There are 16 external static pressure (ESP) settings for 40VMH036, 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"

Table 20 - Fan Performance 036

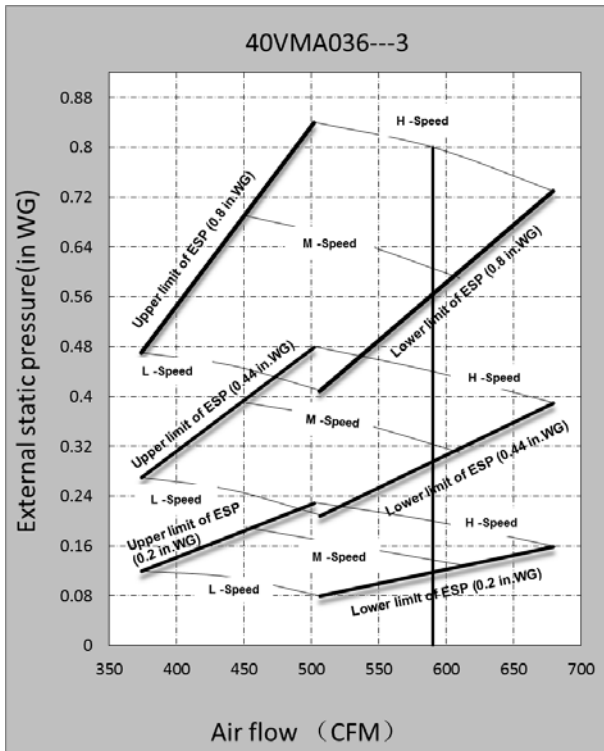


Figure 8 - Fan Performance 036

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



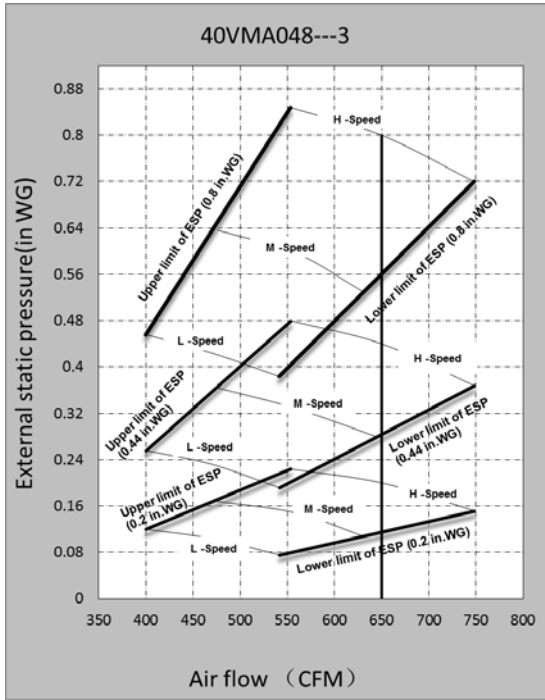


Figure 9 - Fan Performance 048

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

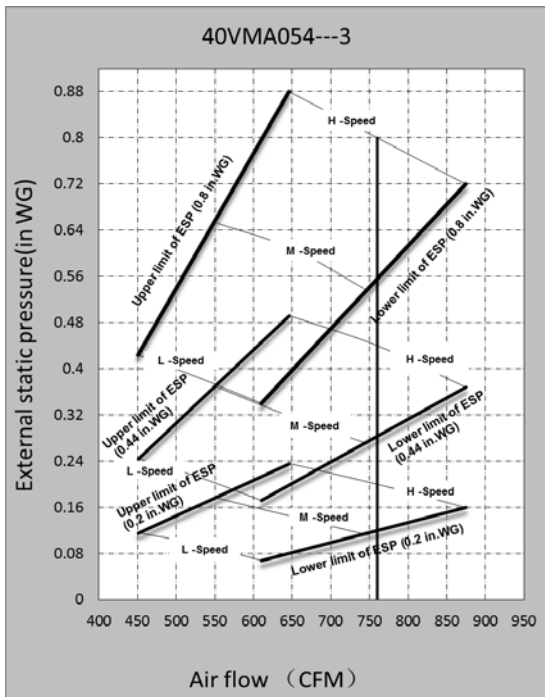


Figure 10 - Fan Performance 054

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:  
SP – Static Pressure

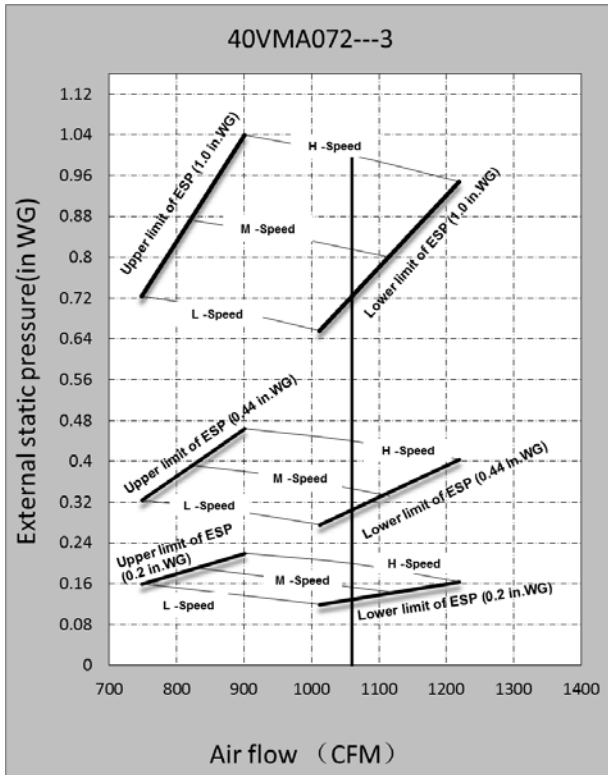


Figure 11 - Fan Performance 072

Table 23 - Fan Performance 072

External Static	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:  
SP – Static Pressure

Table 24 - Fan Performance 096

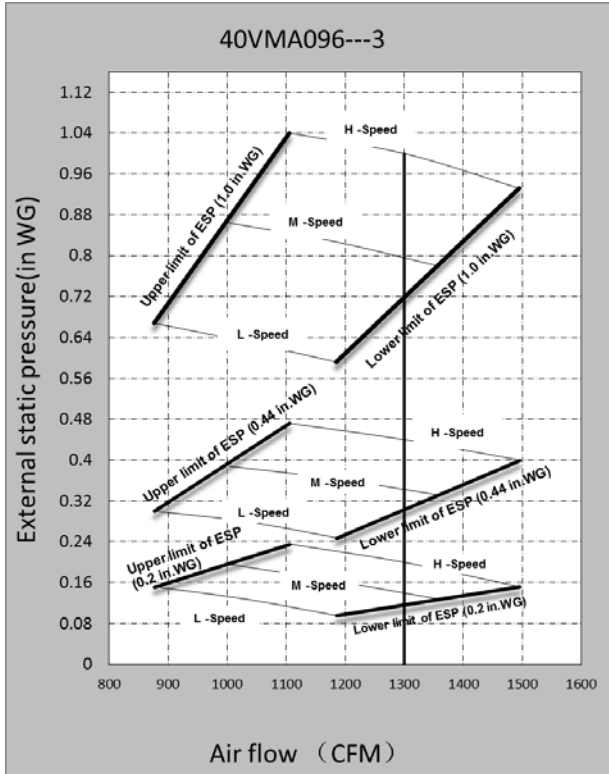


Figure 12 - Fan Performance 096

External Static	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:  
SP – Static Pressure

# VII. Sound Data

## 1. Sound Pressure Level

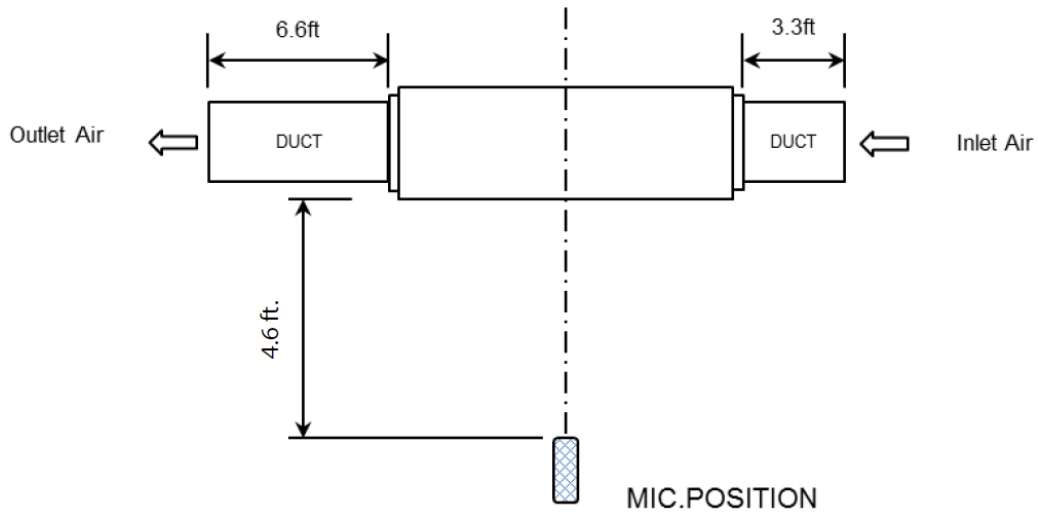


Figure 13 – Overall Sound Levels

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 dBA.

## 2. NC Curves

### NOTES:

External Static Pressure: 0.8 in. (200 Pa)

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

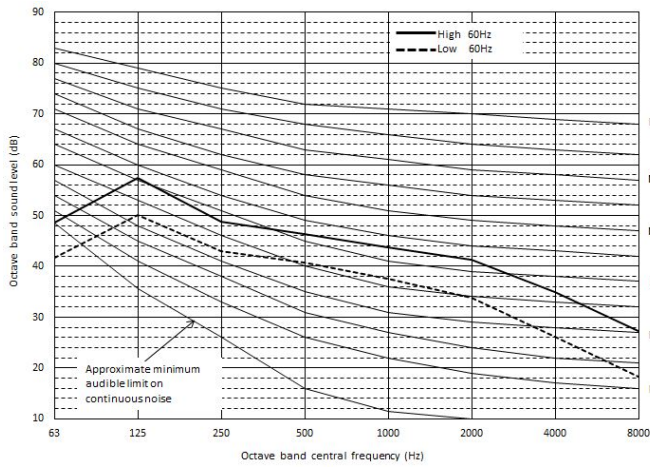


Figure 14 - 40VMA036---3

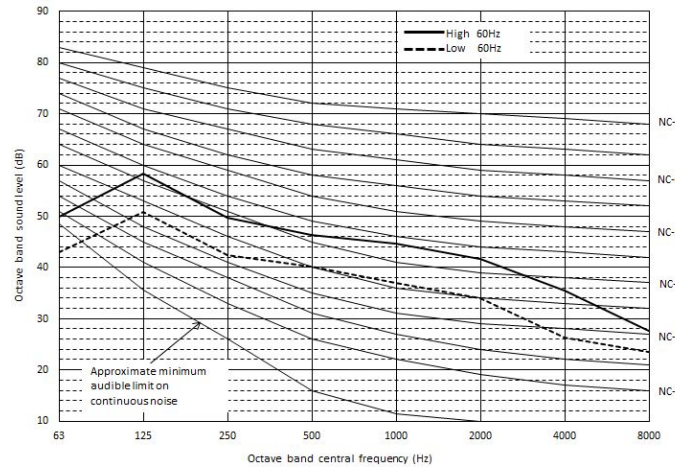


Figure 15- 40VMA048---3

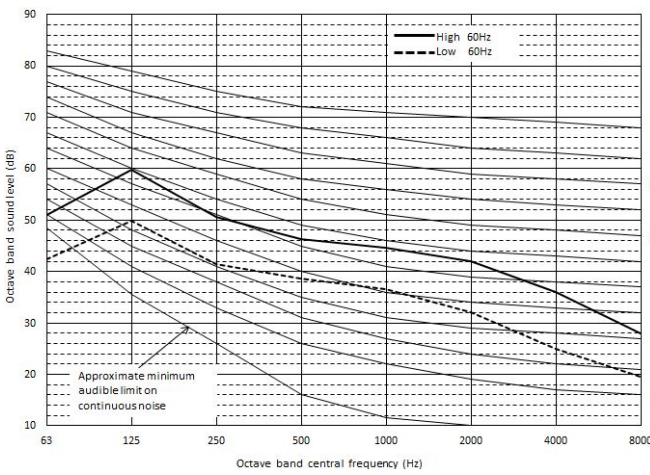


Figure 16 - 40VMA054---3

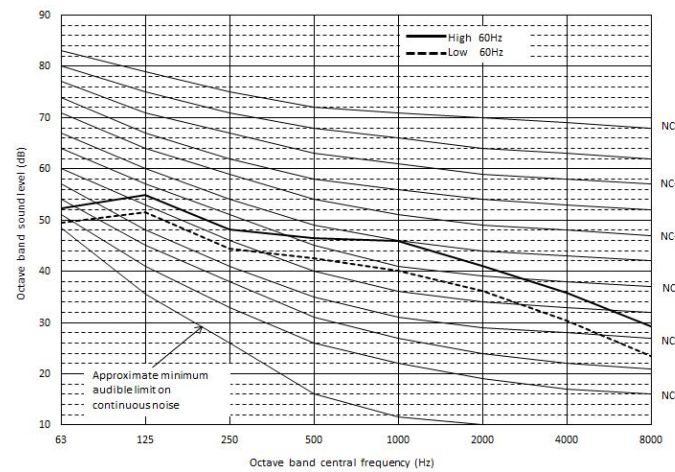


Figure 17 - 40VMA072---3

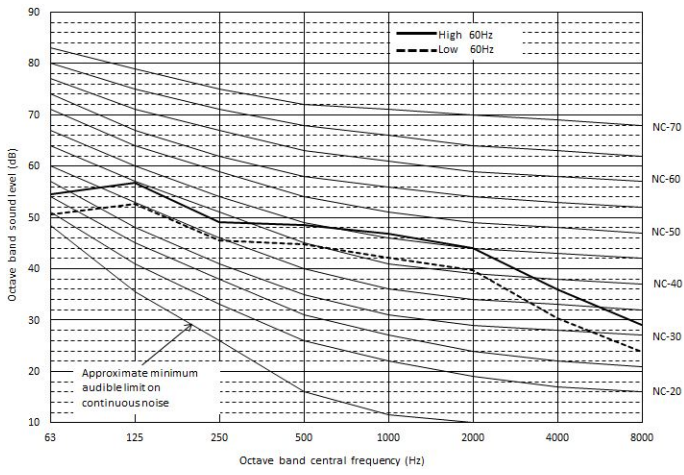


Figure 18 - 40VMA096---3

# VIII. 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	/	/	/	/	/	/	

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
		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