

Engineering Data Book



TABLE OF CONTENTS

HIGH STATIC DUCT BASIC INFORMATION.....3

 External Appearance.....3

 Specifications.....4

 Accessories.....8

PIPING DIAGRAM..... 9

DIMENSIONS.....10

WIRING DIAGRAM.....13

ELECTRICAL CHARACTERISTICS.....17

FAN PERFORMANCE.....18

SOUND DATA.....22

 Sound Pressure Levels.....22

 NC Curves.....23

CAPACITY DATA TABLES.....25

HIGH STATIC DUCT BASIC INFORMATION

External Appearance

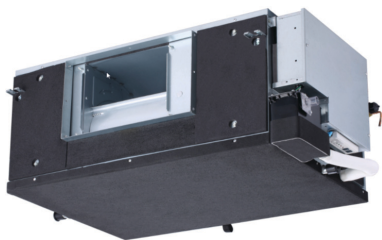


Fig. 1 —40VMH024/030/036---3

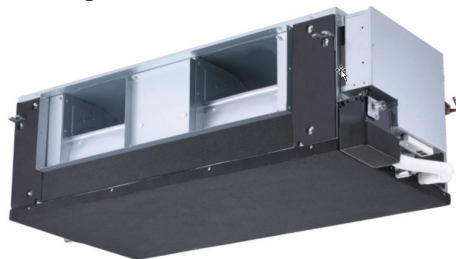


Fig. 2 —40VMH048/054---3



Fig. 3 —40VMH072/096--3

Specifications

Table 1 —Data Table

MODEL			40VMH024---3	40VMH030---3
Power Supply		V/Ph/Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity *		Btu/h	24,000	30,000
Sensible Cooling Capacity *			16,520	20,500
Heating Capacity *		Btu/h	27,000	34,000
Electrical Supply	MCA	A	5.7	7.1
	MOCP	A	15.0	15.0
Casing			Galvanized Steel	
Filter			Included	
Dimensions (H x W x D)		in.	16-1/2 x 37-1/2 x 27-3/16	16-1/2 x 37-1/2 x 27-3/16
Net Weight		lbs	110.0	114.6
Heat Exchanger Type			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Blower / Motor	Fan Type		Centrifugal fan	
	Motor Type		DC motor	
	Air Flow Rate (H/M/L)	CFM	735/600/524	971/753/647
	Motor Output	W	750	750
Min. External Static Pressure (Factory Setting)		in. WG	0.20	0.20
Max. External Static Pressure		in. WG	0.80	0.80
Piping Connections	Gas Side	in.	5/8	5/8
	Liquid Side	in.	3/8	3/8
	Drain Port	in.	1	1
Condensate Lift		in.	27-1/2	27-1/2
Refrigerant Control			Electronic Expansion Valve	
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump	
Wiring	Power Wiring	AWG	Sized per NEC and Local Codes based on Nameplate Electrical Data	
	Control Wiring	AWG	2-core stranded shielded cable 18AWG	

NOTES:

- * Rated per AHRI (Air Conditioning, Heating, and Refrigeration Institute) 1230 Standard
Cooling: Indoor 80°F (27°C) db / 67°F (20°C) wb; Outdoor 95°F (35°C) db
Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db / 43°F (6°C) wb

Table 2 —Data Table

MODEL			40VMH036---3	40VMH048---3
Power Supply		V/Ph/Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity *		Btu/h	36,000	48,000
Sensible Cooling Capacity *		Btu/h	24,420	32,600
Heating Capacity *		Btu/h	40,000	54,000
Electrical Supply	MCA	A	7.3	7.6
	MOCP	A	15.0	15.0
Casing			Galvanized Steel	
Filter			Included	
Dimensions (H x W x D)		in.	16-1/2 x 37-1/2 x 27-3/16	16-1/2 x 51-3/16 x 27-3/16
Net Weight		lbs	114.6	159.2
Heat Exchanger Type			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Blower / Motor	Fan Type		Centrifugal fan	
	Motor Type		DC motor	
	Air Flow Rate (H/M/L)	CFM	1188/1029/882	1429/1200/1041
	Motor Output	W	750	750
Min. External Static Pressure (Factory Setting)		in. WG	0.20	0.20
Max. External Static Pressure		in. WG	0.80	0.80
Piping Connections	Gas Side	in.	5/8	5/8
	Liquid Side	in.	3/8	3/8
	Drain Port	in.	1	1
Condensate Lift		in.	27-1/2	27-1/2
Refrigerant Control			Electronic Expansion Valve	
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump	
Wiring	Power Wiring	AWG	Sized per NEC and Local Codes based on Nameplate Electrical Data	
	Control Wiring	AWG	2-core stranded shielded cable 18AWG	

NOTES:

- * Rated per AHRI (Air Conditioning, Heating, and Refrigeration Institute) 1230 Standard
Cooling: Indoor 80°F (27°C) db / 67°F (20°C) wb; Outdoor 95°F (35°C) db
Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db / 43°F (6°C) wb

Table 3 —Data Table

MODEL			40VMH054---3	40VMH072---3
Power Supply		V/Ph/Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity *		Btu/h	53,500	72,000
Sensible Cooling Capacity *		Btu/h	38,790	50,920
Heating Capacity *		Btu/h	60,000	81,000
Electrical Supply	MCA	A	7.8	9.7
	MOCP	A	15.0	15.0
Casing			Galvanized Steel	
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	159.2	254.2
Heat Exchanger Type			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Blower / Motor	Fan Type		Centrifugal fan	
	Motor Type		DC motor	
	Air Flow Rate (H/M/L)	CFM	1835/1618/1412	2235/1794/1559
	Motor Output	W	750	750 + 750
Min. External Static Pressure (Factory setting)		in. WG	0.20	0.20
Max. External Static Pressure		in. WG	0.80	1.00
Piping Connections	Gas Side	in.	5/8	7/8
	Liquid Side	in.	3/8	3/8
	Drain Port	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 38VMH-1P – Heat Pump	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	

NOTES:

- * Rated per AHRI (Air Conditioning, Heating, and Refrigeration Institute) 1230 Standard
Cooling: Indoor 80°F (27°C) db / 67°F (20°C) wb; Outdoor 95°F (35°C) db
Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db / 43°F (6°C) wb

Table 4 —Data Table

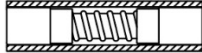
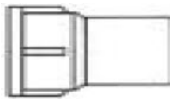
MODEL			40VMH096---3
Power Supply		V/Ph/Hz	208/230-1-60
Total Cooling Capacity *		Btu/h	96,000
Sensible Cooling Capacity *		Btu/h	64,570
Heating Capacity *		Btu/h	108,000
Electrical Supply	MCA	A	10.2
	MOCP	A	15.0
Casing			Galvanized Steel
Filter			Included
Dimensions (H x W x D)		in.	20 x 56-11/16 x 36-3/8
Net Weight		lbs	254.2
Heat Exchanger Type			Inner Groove Copper Tube and Hydrophilic Aluminum fin
Blower / Motor	Fan Type		Centrifugal fan
	Motor Type		DC motor
	Air Flow Rate (H/M/L)	CFM	2824/2400/2076
	Motor Output	W	750 + 750
Min. External Static Pressure (Factory Setting)		in. WG	0.20
Max. External Static Pressure		in. WG	1.00
Piping Connections	Gas Side	in.	7/8
	Liquid Side	in.	3/8
	Drain Port	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

NOTES:

- * Rated per AHRI (Air Conditioning, Heating, and Refrigeration Institute) 1230 Standard
Cooling: Indoor 80°F (27°C) db / 67°F (20°C) wb; Outdoor 95°F (35°C) db
Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db / 43°F (6°C) wb

Accessories

Table 5 —Table of Accessories

NAME OF ACCESSORIES		QUANTITY	OUTLINE	USAGE
PQ connection wire		2		Connects the outdoor unit, indoor unit, and sub MDC
Connecting Wire		1		For occupy sensor
Pipe Insulation material		2		Heat insulation
Condensate Connection	024-054	1		For Drainage
Clamp		1		Connects the drain hose to the condensate connection
Copper Nut		1		Use for Pipe connection
LED Display Panel		1		Operation and error display
Copper Pipe	024-054	2		Use for inlet and outlet connection
	072-096	1		
Condensate Connection	072-096	1		For drainage

PIPING DIAGRAM

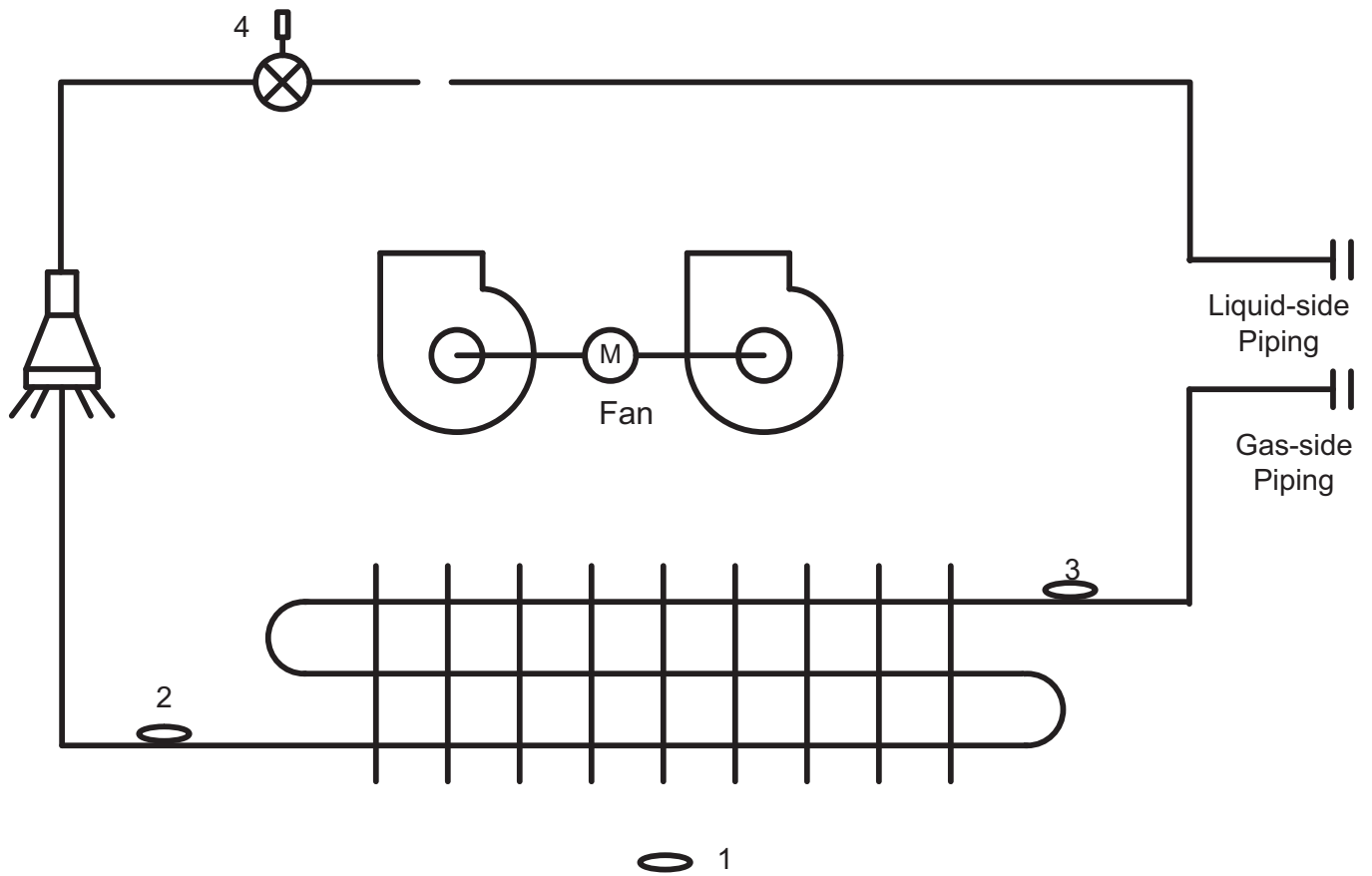


Fig. 4 —Piping

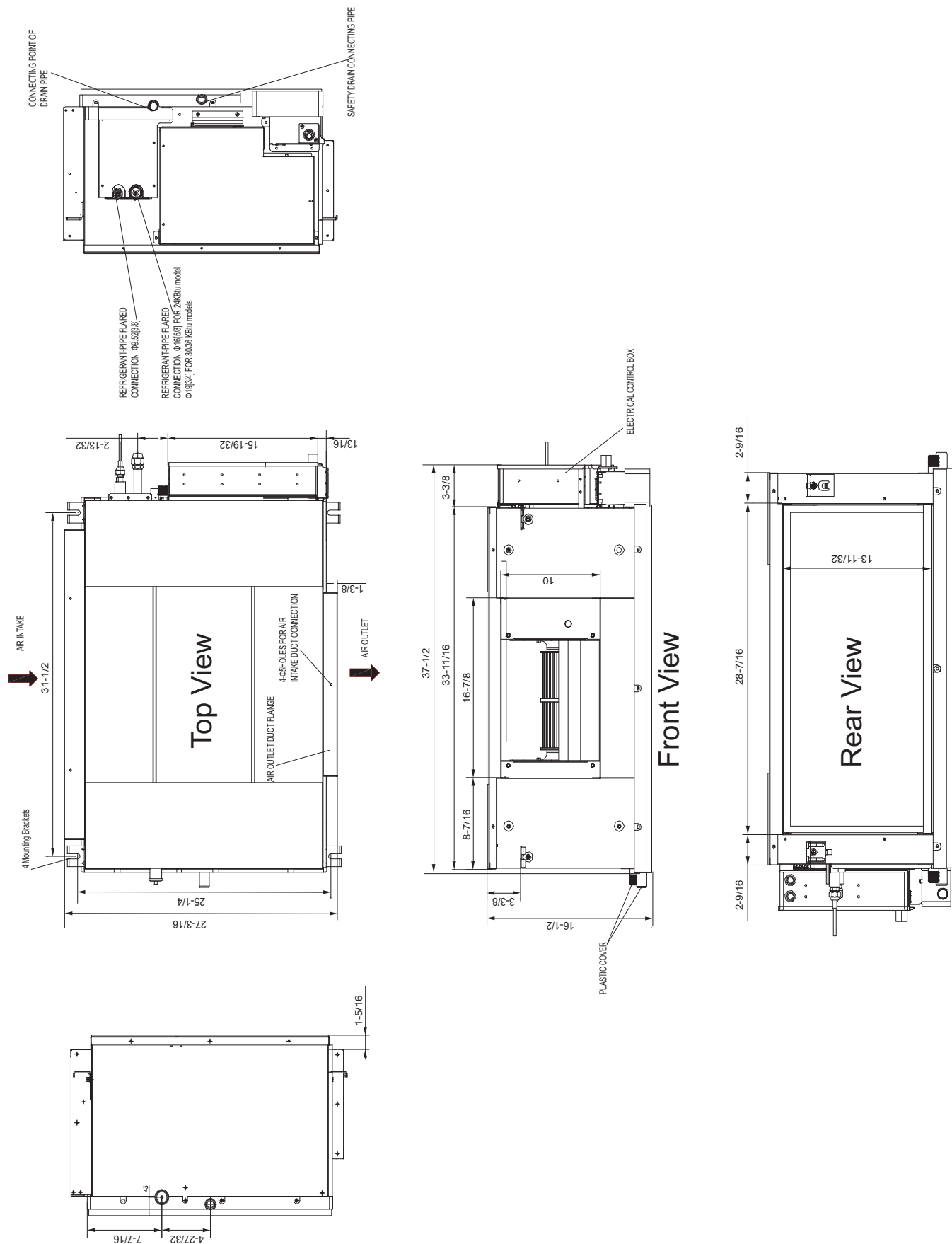
Table 6 —Piping

NO.	SYMBOL	NAME
1	T1	Room temperature sensor
2	T2A	Inlet pipe temperature sensor
3	T2B	Outlet pipe temperature sensor
4	EEV	Electronic expansion valve

Table 7 —Gas/Liquid Line Sizes

MODEL	GAS	LIQUID
40VMH024/030/036/048/054	5/8	3/8
40VMH072/096	7/8	3/8

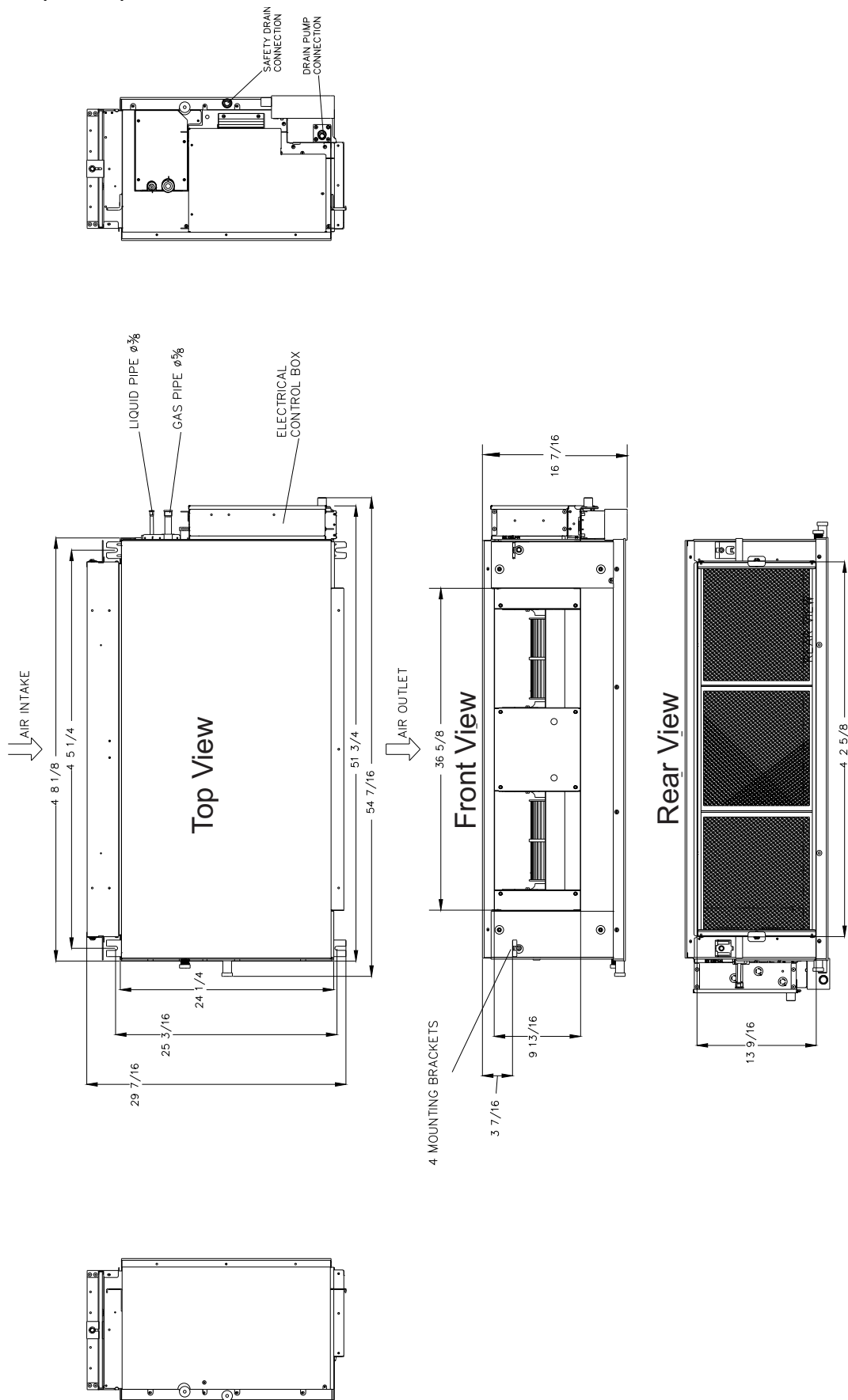
DIMENSIONS



NOTE: All dimensions are shown in inches.

Fig. 5 —40VMH024/030/036---3

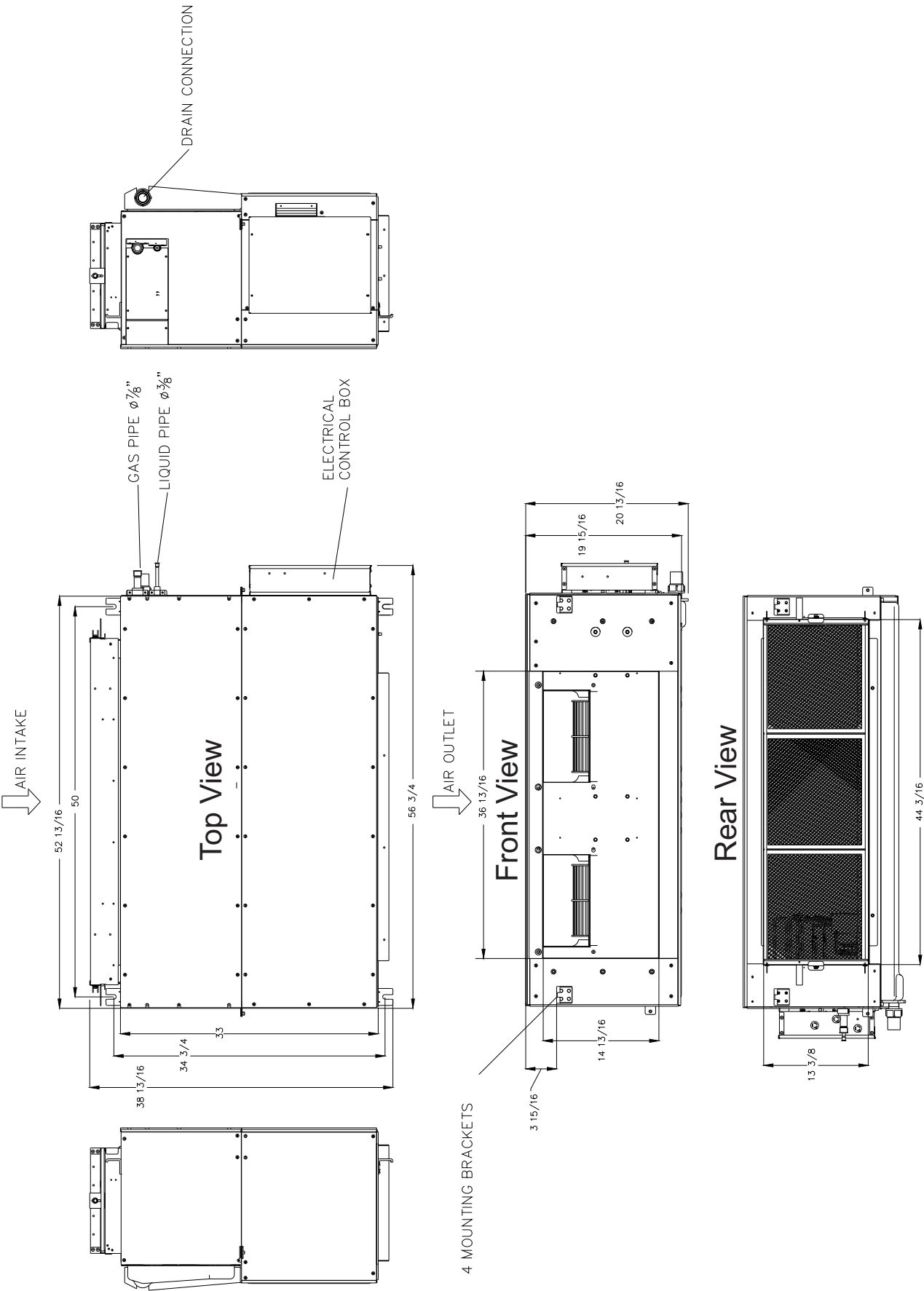
DIMENSIONS (CONT.)



NOTE: All dimensions are shown in inches.

Fig. 6 —40VMH048/054---3

DIMENSIONS (CONT.)



NOTE: All dimensions are shown in inches.

Fig. 7 —40VMH072/096---3

WIRING DIAGRAMS

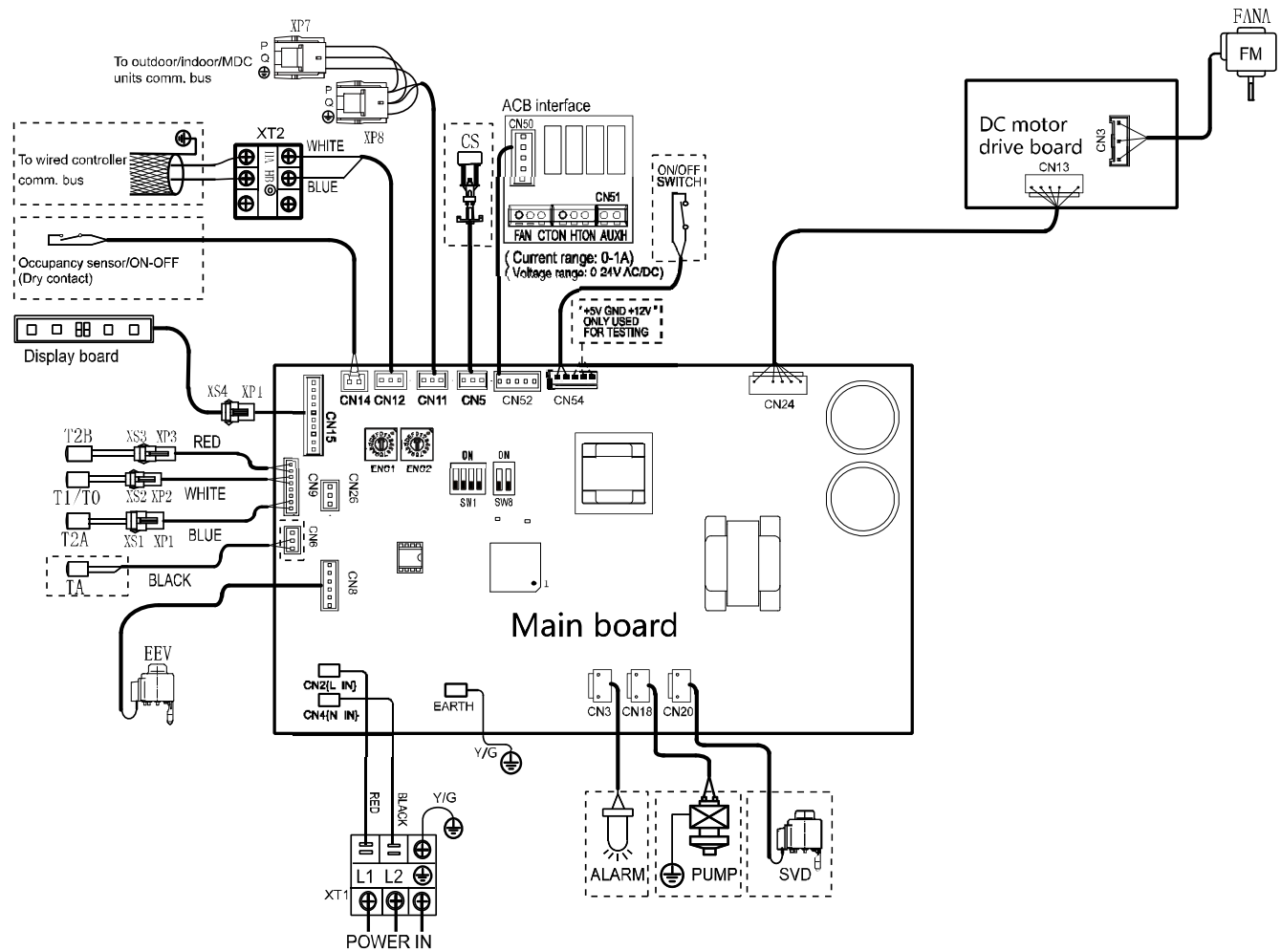


Fig. 8 —Wiring Diagram (40VMH024/030/036/040/048/054---3)

Wiring Diagram Definitions and Settings (40VMH024 - 054---3)

Table 8 —Code / Title

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

Table 10 —ENC1 / ENC2

	Reserved		Reserved
---	----------	---	----------

Table 11 —SW8 Definition

	Reserved
	Reserved

Table 9 —SW1 Definition

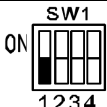
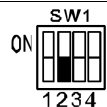
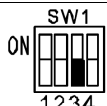
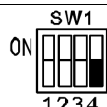
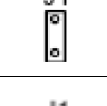
	0 means auto addressing mode (Default)
	1 means factory test mode
	0 means normal mode (Default)
	1 means factory self-checking mode
	Reserved
	0 means standard indoor unit (Default)
	1 means main indoor unit (must be addressed #63)

Table 12 — J1 Definition

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

Table 13 —0/1 Definition

	Means 0
	Means 1

Table 14 —Wiring Diagram Error Codes

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

WIRING DIAGRAMS (CONT.)

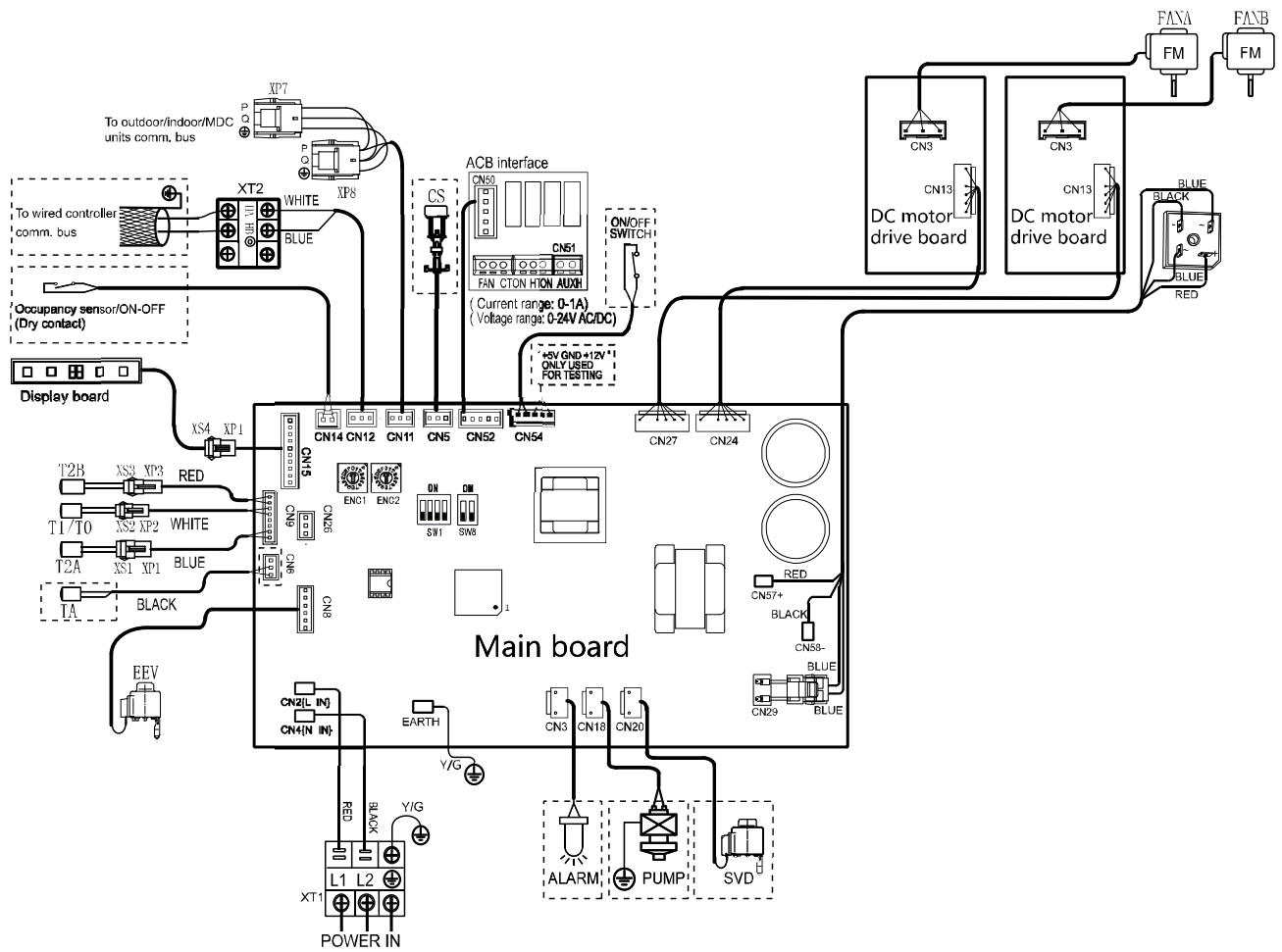


Fig. 9 —Wiring Diagram (40VMH072/096---3)

Wiring Diagram Definitions and Settings (40VMH072 - 096---3)

Table 15 —Code / Title

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

Table 17 —ENC1 / ENC2

	Reserved		Reserved
---	----------	---	----------

Table 18 —SW8 Definition

	Reserved
	Reserved

Table 16 —SW1 Definition

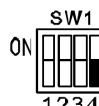
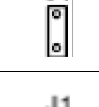
	0 means auto addressing mode (Default)
	1 means factory test mode
	0 means normal mode (Default)
	1 means factory self-checking mode
	Reserved
	0 means standard indoor unit (Default)
	1 means main indoor unit (must be addressed #63)

Table 19 — J1 Definition

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

Table 20 —0/1 Definition

	Means 0
	Means 1

Table 21 —Wiring Diagram Error Codes

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

ELECTRICAL CHARACTERISTICS

Table 22 —Electrical Characteristics

MODEL	POWER SUPPLY					IFM	
	HZ	VOLTS	VOLTAGE RANGE	MCA	MOCP	kW	FLA
40VMH024---3	60	208/230V	Max.253V Min.187V	5.70	15	0.75	4.50
40VMH030---3				7.10	15	0.75	5.60
40VMH036---3				7.30	15	0.75	5.80
40VMH048---3				7.60	15	0.75	6.00
40VMH054---3				7.80	15	0.75	6.20
40VMH072---3				9.70	15	0.75*2	4.2 + 4.3
40VMH096---3				10.20	15	0.75*2	4.5 + 4.5

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

FAN PERFORMANCE

There are 16 external static pressure (ESP) settings for 40VMH024, 030, 036, 048, 054; and 21 external static pressure for the 072 and 096 models.

The figures below on the left show MAX. ESP, Rating ESP, Min. ESP as an example for fan characteristics.

The tables below 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 connected duct resistance.

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

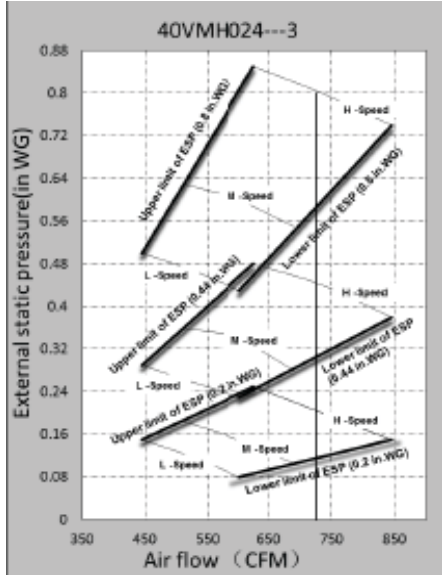


Fig. 10 —Fan Performance 024

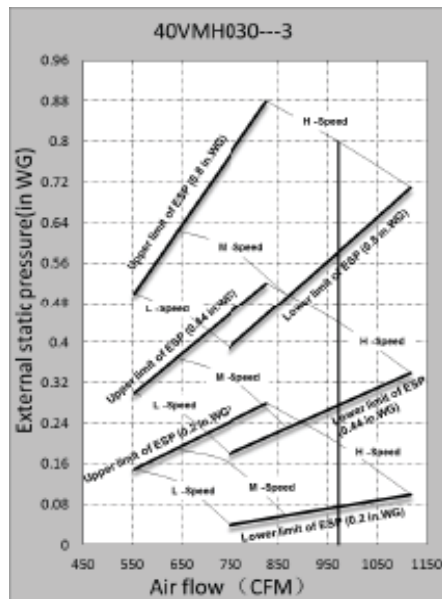


Fig. 11 —Fan Performance 030

Table 23 —Fan Performance 024

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	845	0.15	735	0.20	625	0.25
0.24	H	845	0.19	735	0.24	625	0.29
0.28	H	845	0.23	735	0.28	625	0.33
0.32	H	845	0.27	735	0.32	625	0.37
0.36	H	845	0.31	735	0.36	625	0.41
0.40	H	845	0.35	735	0.40	625	0.45
0.44	H	845	0.38	735	0.44	625	0.48
0.48	H	845	0.42	735	0.48	625	0.52
0.52	H	845	0.46	735	0.52	625	0.56
0.56	H	845	0.50	735	0.56	625	0.60
0.60	H	845	0.54	735	0.60	625	0.64
0.64	H	845	0.58	735	0.64	625	0.68
0.68	H	845	0.62	735	0.68	625	0.73
0.72	H	845	0.66	735	0.72	625	0.77
0.76	H	845	0.70	735	0.76	625	0.81
0.80	H	845	0.74	735	0.80	625	0.85

LEGEND:

SP - Static Pressure

Table 24 —Fan Performance 030

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	1117	0.10	971	0.20	825	0.28
0.24	H	1117	0.14	971	0.24	825	0.32
0.28	H	1117	0.18	971	0.28	825	0.36
0.32	H	1117	0.22	971	0.32	825	0.40
0.36	H	1117	0.26	971	0.36	825	0.44
0.40	H	1117	0.30	971	0.40	825	0.48
0.44	H	1117	0.34	971	0.44	825	0.52
0.48	H	1117	0.38	971	0.48	825	0.56
0.52	H	1117	0.42	971	0.52	825	0.60
0.56	H	1117	0.46	971	0.56	825	0.64
0.60	H	1117	0.50	971	0.60	825	0.68
0.64	H	1117	0.55	971	0.64	825	0.72
0.68	H	1117	0.59	971	0.68	825	0.76
0.72	H	1117	0.63	971	0.72	825	0.81
0.76	H	1117	0.67	971	0.76	825	0.84
0.80	H	1117	0.71	971	0.80	825	0.88

LEGEND:

SP - Static Pressure

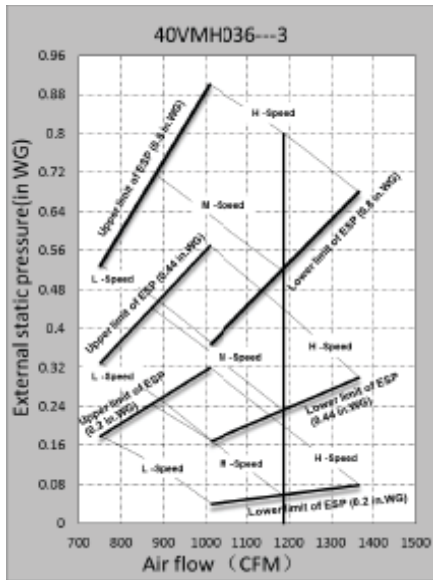


Fig. 12 —Fan Performance 036

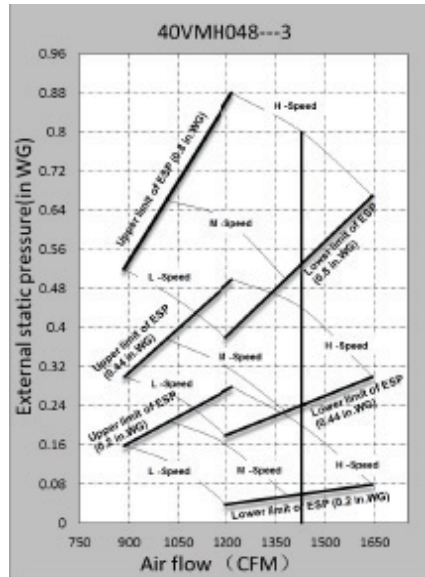


Fig. 13 —Fan Performance 048

Table 23 —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	1366	0.08	1188	0.20	1010	0.32
0.24	H	1366	0.12	1188	0.24	1010	0.36
0.28	H	1366	0.16	1188	0.28	1010	0.40
0.32	H	1366	0.20	1188	0.32	1010	0.44
0.36	H	1366	0.24	1188	0.36	1010	0.48
0.40	H	1366	0.28	1188	0.40	1010	0.52
0.44	H	1366	0.30	1188	0.44	1010	0.57
0.48	H	1366	0.34	1188	0.48	1010	0.61
0.52	H	1366	0.38	1188	0.52	1010	0.65
0.56	H	1366	0.42	1188	0.56	1010	0.69
0.60	H	1366	0.46	1188	0.60	1010	0.73
0.64	H	1366	0.50	1188	0.64	1010	0.77
0.68	H	1366	0.56	1188	0.68	1010	0.78
0.72	H	1366	0.60	1188	0.72	1010	0.82
0.76	H	1366	0.64	1188	0.76	1010	0.86
0.80	H	1366	0.68	1188	0.80	1010	0.90

LEGEND:

SP - Static Pressure

Table 26 —Fan Performance 048

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	1643	0.08	1429	0.20	1215	0.28
0.24	H	1643	0.12	1429	0.24	1215	0.32
0.28	H	1643	0.16	1429	0.28	1215	0.36
0.32	H	1643	0.20	1429	0.32	1215	0.40
0.36	H	1643	0.24	1429	0.36	1215	0.44
0.40	H	1643	0.28	1429	0.40	1215	0.48
0.44	H	1643	0.30	1429	0.44	1215	0.50
0.48	H	1643	0.34	1429	0.48	1215	0.54
0.52	H	1643	0.38	1429	0.52	1215	0.58
0.56	H	1643	0.42	1429	0.56	1215	0.62
0.60	H	1643	0.46	1429	0.60	1215	0.66
0.64	H	1643	0.50	1429	0.64	1215	0.70
0.68	H	1643	0.55	1429	0.68	1215	0.76
0.72	H	1643	0.59	1429	0.72	1215	0.80
0.76	H	1643	0.63	1429	0.76	1215	0.84
0.80	H	1643	0.67	1429	0.80	1215	0.88

LEGEND:

SP - Static Pressure

Table 27 —Fan Performance 054

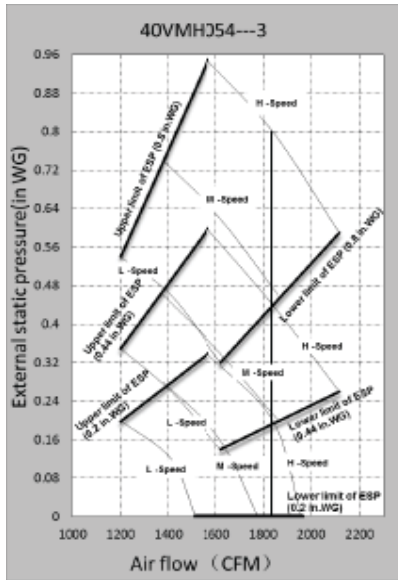


Fig. 14 —Fan Performance 054

External Static Pressure	Fan Speed	Rang 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	1959	0.00	1835	0.20	1560	0.34
0.24	H	2110	0.03	1835	0.24	1560	0.38
0.28	H	2110	0.07	1835	0.28	1560	0.42
0.32	H	2110	0.11	1835	0.32	1560	0.46
0.36	H	2110	0.15	1835	0.36	1560	0.50
0.40	H	2110	0.19	1835	0.40	1560	0.54
0.44	H	2110	0.26	1835	0.44	1560	0.60
0.48	H	2110	0.30	1835	0.48	1560	0.64
0.52	H	2110	0.34	1835	0.52	1560	0.68
0.56	H	2110	0.38	1835	0.56	1560	0.72
0.60	H	2110	0.42	1835	0.60	1560	0.76
0.64	H	2110	0.45	1835	0.64	1560	0.80
0.68	H	2110	0.47	1835	0.68	1560	0.83
0.72	H	2110	0.51	1835	0.72	1560	0.87
0.76	H	2110	0.55	1835	0.76	1560	0.91
0.80	H	2110	0.59	1835	0.80	1560	0.95

LEGEND:

SP - Static Pressure

Table 28 —Fan Performance 072

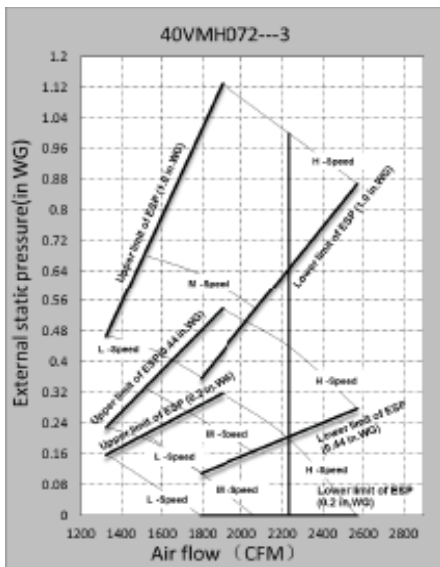


Fig. 15 —Fan Performance 072

External Static Pressure	Fan Speed	Rang 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	2570	0.00	2235	0.20	1900	0.32
0.24	H	2570	0.09	2235	0.24	1900	0.36
0.28	H	2570	0.13	2235	0.28	1900	0.40
0.32	H	2570	0.17	2235	0.32	1900	0.44
0.36	H	2570	0.21	2235	0.36	1900	0.48
0.40	H	2570	0.25	2235	0.40	1900	0.52
0.44	H	2570	0.28	2235	0.44	1900	0.54
0.48	H	2570	0.32	2235	0.48	1900	0.58
0.52	H	2570	0.36	2235	0.52	1900	0.62
0.56	H	2570	0.40	2235	0.56	1900	0.66
0.60	H	2570	0.44	2235	0.60	1900	0.70
0.64	H	2570	0.48	2235	0.64	1900	0.74
0.68	H	2570	0.52	2235	0.68	1900	0.78
0.72	H	2570	0.59	2235	0.72	1900	0.85
0.76	H	2570	0.63	2235	0.76	1900	0.89
0.80	H	2570	0.67	2235	0.80	1900	0.93
0.84	H	2570	0.71	2235	0.84	1900	0.97
0.88	H	2570	0.75	2235	0.88	1900	1.01
0.92	H	2570	0.79	2235	0.92	1900	1.05
0.96	H	2570	0.83	2235	0.96	1900	1.09
1.00	H	2570	0.87	2235	1.00	1900	1.13

LEGEND:

SP - Static Pressure

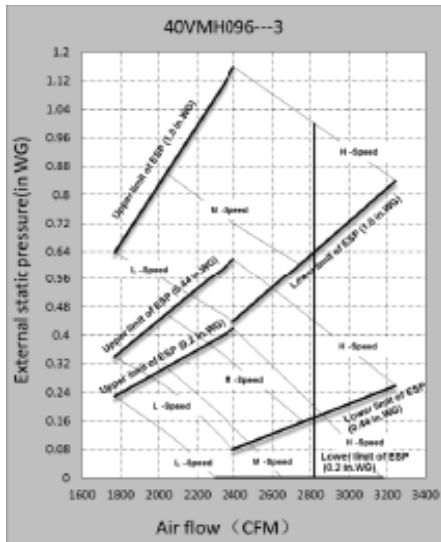


Fig. 16 —Fan Performance 096

Table 29 —Fan Performance 096

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	3176	0.00	2824	0.20	2400	0.42
0.24	H	3248	0.04	2824	0.24	2400	0.45
0.28	H	3248	0.08	2824	0.28	2400	0.49
0.32	H	3248	0.12	2824	0.32	2400	0.52
0.36	H	3248	0.16	2824	0.36	2400	0.55
0.40	H	3248	0.20	2824	0.40	2400	0.59
0.44	H	3248	0.26	2824	0.44	2400	0.62
0.48	H	3248	0.30	2824	0.48	2400	0.66
0.52	H	3248	0.34	2824	0.52	2400	0.70
0.56	H	3248	0.38	2824	0.56	2400	0.74
0.60	H	3248	0.42	2824	0.60	2400	0.78
0.64	H	3248	0.46	2824	0.64	2400	0.82
0.68	H	3248	0.50	2824	0.68	2400	0.86
0.72	H	3248	0.54	2824	0.72	2400	0.90
0.76	H	3248	0.58	2824	0.76	2400	0.94
0.80	H	3248	0.64	2824	0.80	2400	0.96
0.84	H	3248	0.68	2824	0.84	2400	1.00
0.88	H	3248	0.72	2824	0.88	2400	1.04
0.92	H	3248	0.76	2824	0.92	2400	1.08
0.96	H	3248	0.80	2824	0.96	2400	1.12
1.00	H	3248	0.84	2824	1.00	2400	1.16

LEGEND:

SP - Static Pressure

SOUND DATA

Sound Pressure Levels

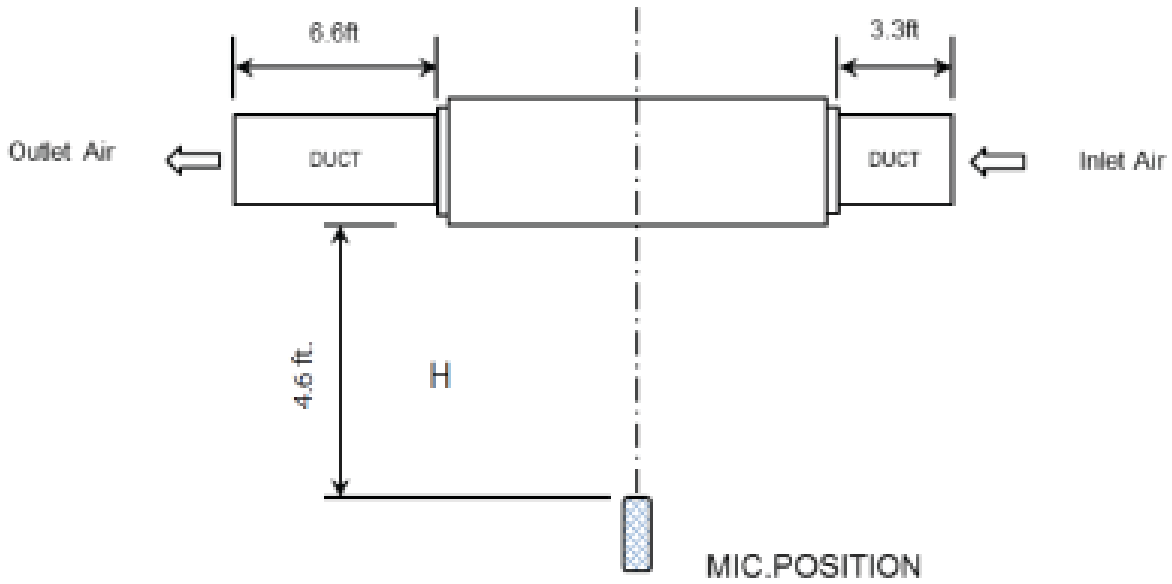


Fig. 17 —Overall Sound Levels

Table 30 —Cooling Mode

MODEL	H	M	L
40VMH024---3	50.9	47.8	44.7
40VMH030---3	51.2	46.9	43.3
40VMH036---3	55.5	52.8	49.1
40VMH048---3	54.9	51.8	48.3
40VMH054---3	58.1	55.8	52.0
40VMH072---3	55.9	52.2	48.7
40VMH096---3	56.4	54.7	52.4

Table 31 —Heating Mode

MODEL	H	M	L
40VMH024---3	49.3	45.6	42.7
40VMH030---3	50.3	46.2	42.0
40VMH036---3	55.0	52.1	48.7
40VMH048---3	54.9	51.3	47.6
40VMH054---3	57.2	54.7	50.5
40VMH072---3	55.2	51.8	47.1
40VMH096---3	55.3	53.7	51.8

Units are dBA.

NC Curves

Units are dBA.

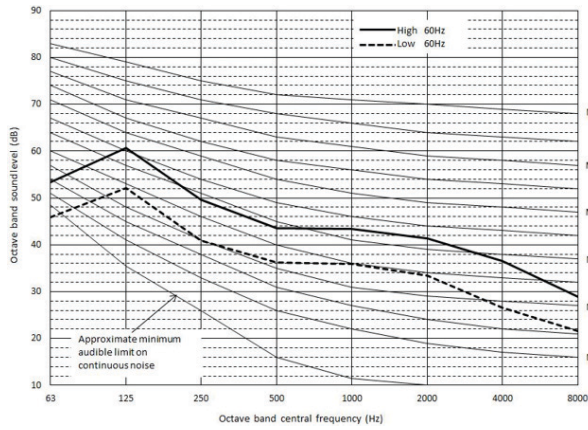


Fig. 18 —40VMH024---3

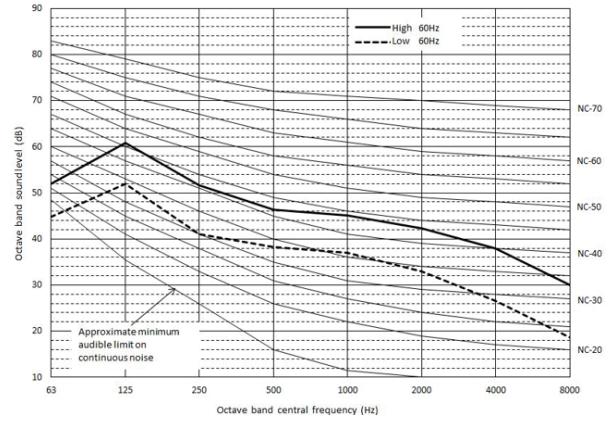


Fig. 19 —40VMH030---3

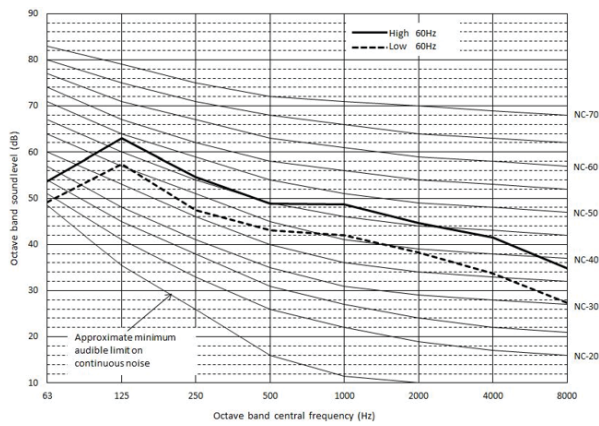


Fig. 20 —40VMH036---3

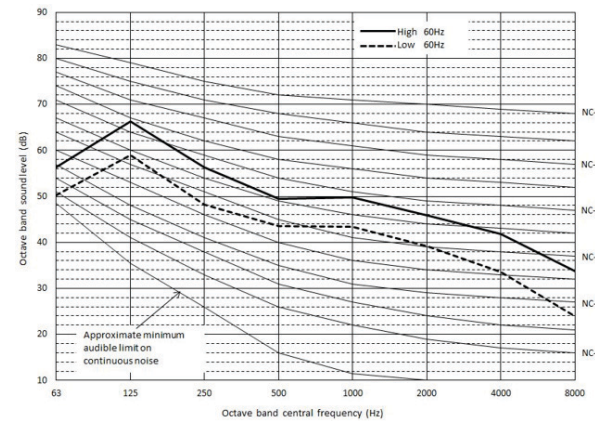


Fig. 21 —40VMH048---3

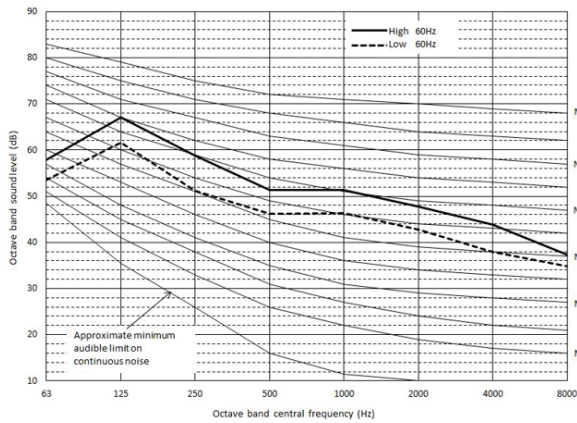


Fig. 22 —40VMH054---3

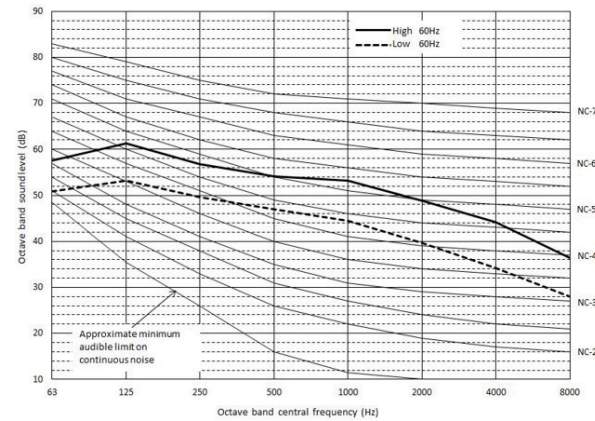


Fig. 23 —40VMH072---3

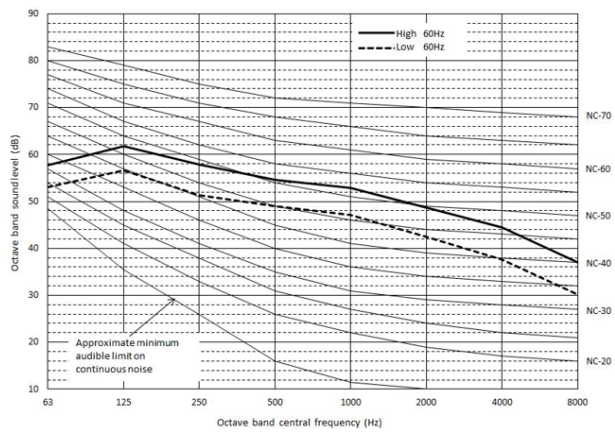


Fig. 24 —40VMH096---3

CAPACITY DATA TABLES

Table 32 —Cooling Capacity

Indoor Unit Entering Air Conditions:		Cooling Capacity indication													
		24K		30K		36K		48K		53.5K		72K		96K	
drybulb(°F)	wetbulb(°F)	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
70	58	15.07	13.06	18.84	16.47	22.61	19.73	30.15	25.5	33.6	29.94	45.22	38.18	60.3	48.97
70	62	19.04	11.9	23.8	14.83	28.56	17.67	38.08	23.34	42.45	26.62	57.12	34.6	76.17	44.8
70	67	24	10.16	30	12.39	36	14.65	48	20.05	53.5	21.8	72	29.24	96	38.41
70	72	/	/	/	/	/	/	/	/	/	/	/	/	/	/
70	76	/	/	/	/	/	/	/	/	/	/	/	/	/	/
75	58	15.18	15.07	18.97	18.84	22.77	22.61	30.36	30.15	33.84	33.60	45.54	45.22	60.72	60.30
75	62	19.17	14.94	23.97	18.83	28.76	22.58	38.35	29.24	42.75	34.20	57.52	43.82	76.70	56.45
75	67	24.17	13.18	30.21	16.40	36.25	19.54	48.34	25.94	53.87	29.36	72.50	38.44	96.67	50.04
75	72	25.98	9.84	32.48	12.00	38.98	14.18	51.97	19.44	57.92	21.09	77.95	28.33	103.93	37.25
75	76	/	/	/	/	/	/	/	/	/	/	/	/	/	/
80	58	15.28	15.07	19.10	18.84	22.93	22.61	30.57	30.15	34.07	33.60	45.86	45.22	61.15	60.30
80	62	19.31	17.97	24.13	22.85	28.96	27.49	38.61	35.15	43.05	41.79	57.92	53.07	77.24	68.12
80	67	24.34	16.22	30.42	20.41	36.51	24.45	48.67	31.83	54.25	36.94	73.01	47.67	97.35	61.69
80	72	26.16	12.87	32.71	16.01	39.25	19.08	52.33	25.34	58.33	28.66	78.50	37.54	104.66	48.89
80	76	27.57	10.12	34.46	12.40	41.36	14.67	55.14	19.99	61.46	21.86	82.71	29.22	110.28	38.35
85	58	15.39	15.07	19.24	18.84	23.09	22.61	30.79	30.15	34.31	33.60	46.18	45.22	61.58	60.30
85	62	19.44	19.04	24.30	23.80	29.16	28.56	38.89	38.08	43.35	42.45	58.33	57.12	77.78	76.17
85	67	24.51	19.26	30.63	24.43	36.76	29.37	49.02	37.74	54.63	44.54	73.52	56.92	98.03	73.37
85	72	26.34	15.91	32.94	20.02	39.53	24.00	52.70	31.24	58.73	36.25	79.05	46.78	105.39	60.56
85	76	27.76	13.16	34.70	16.41	41.65	19.58	55.53	25.88	61.89	29.44	83.29	38.45	111.05	50.01
90	58	15.50	15.07	19.37	18.84	23.25	22.61	31.00	30.15	34.55	33.60	46.50	45.22	62.01	60.30
90	62	19.58	19.04	24.47	23.80	29.37	28.56	39.16	38.08	43.65	42.45	58.74	57.12	78.33	76.17
90	67	24.68	24.00	30.85	30.00	37.02	36.00	49.36	48.00	55.01	53.50	74.04	72.00	98.72	96.00
90	72	26.53	18.95	33.17	24.05	39.80	28.92	53.07	37.16	59.14	43.86	79.60	56.04	106.13	72.25
90	76	27.96	16.20	34.94	20.43	41.94	24.50	55.91	31.80	62.32	37.04	83.87	47.70	111.83	61.69

Table 33 —Heating Capacity

Model	Capacity indication	Heating Indoor air temp.							
		61°DB	64°DB	67°DB	70°DB	73°DB	75°DB	77°DB	80°DB
		TC	TC	TC	TC	TC	TC	TC	TC
High static	24	28.63	28.08	27.54	27.00	25.19	23.99	22.78	20.97
	30	36.05	35.37	34.68	34.00	31.72	30.21	28.69	26.41
	36	42.41	41.61	40.80	40.00	37.32	35.54	33.75	31.07
	48	57.25	56.17	55.08	54.00	50.38	47.97	45.56	41.95
	54	63.62	62.41	61.21	60.00	55.98	53.30	50.63	46.61
	72	85.88	84.25	82.63	81.00	75.58	71.96	68.34	62.92
	96	114.51	112.34	110.17	108.00	100.77	95.95	91.13	83.89

