40VMM007A-048A
Medium Static Duct Indoor Unit for
Variable Refrigerant Flow (VRF) Systems

Engineering Data Book

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TABLE OF CONTENTS

MEDIUM STATIC DUCT BASIC INFORMATION....3
External Appearance....3
Specifications....4
Accessories....9
PIPING DIAGRAM....10
DIMENSIONS....11
WIRING DIAGRAMS....13
ELECTRICAL CHARACTERISTICS....15
FAN PERFORMANCE....16
SOUND DATA....21
Sound Pressure Levels....21
NC Curves....22
CAPACITY DATA TABLES....31

MEDIUM STATIC DUCT BASIC INFORMATION

External Appearance

Fig. 1 —40VMM007A/009A--3

Fig. 2 —40VMM012A--3

Fig. 3 —40VMM015A/018A/024A--3

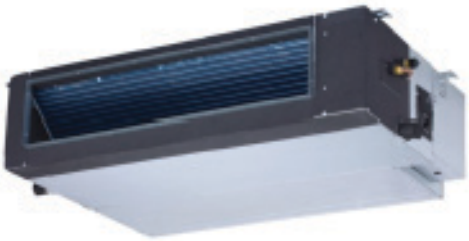


Fig. 4 —40VMM030A/036A/048A--3

Specifications

Table 1 —Data Table

MODEL NAME			40VMM007A--3	40VMM009A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity*1		Btu/h	7,000	9,000
Sensible Cooling Capacity*1		Btu/h	5,490	7,080
Heating Capacity*1		Btu/h	8,000	10,000
Electrical Supply	MCA	A	1.25	1.25
	MOCP	A	15	15
Fan	Type		Centrifugal Fan	
	Air flow rate (H/M/L)	cfm	260/220/220	330/260/220
	Max. External static pressure (ESP)	in. WG	0.32	0.32
Fan Motor	Type		DC	
	Input	W	50	50
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Refrigerant Control			Electronic Expansion Valve	
Dimensions		H (in)	8-1/4	8-1/4
		W (in)	39-1/4	39-1/4
		D (in)	19-3/4	19-3/4
Net Weight		lbs	50.7	50.7
Sound pressure level*2		H - dBA	33.2	32.7
		M – dBA	32.1	32.4
		L – dBA	31.8	31.8
Piping Connections	Gas (Low) Pressure	In	1/2	1/2
	Liquid (High) Pressure	In	1/4	1/4
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump	
Casing			Galvanized Steel	
Filter			Included	
Condensate Lift		In	27-9/16	27-9/16
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:

*1 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

*2 These values are measured in anechoic chamber at a distance of 4.6 feet below the center of unit.

Table 2 —Data Table

MODEL NAME			40VMM012A--3	40VMM015A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity*1		Btu/h	12,000	15,000
Sensible Cooling Capacity*1		Btu/h	9,310	11,630
Heating Capacity*1		Btu/h	13,600	17,000
Electrical Supply	MCA	A	3.13	3.13
	MOCP	A	15	15
Fan	Type		Centrifugal Fan	
	Air flow rate (H/M/L)	cfm	430/360/320	535/450/400
	Max. External static pressure (ESP)	in. WG	0.6	0.6
Fan Motor	Type		DC	
	Input	W	135	145
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Refrigerant Control			Electronic Expansion Valve	
Dimensions		H (in)	10-5/8	10-5/8
		W (in)	39-3/4	48-1/2
		D (in)	25	30-1/2
Net Weight		lbs	76.0	99.2
Sound pressure level*2		H - dBA	36.7	35.9
		M – dBA	33.7	32.7
		L – dBA	32.7	31.4
Piping Connections	Gas (Low) Pressure	In	1/2	1/2
	Liquid (High) Pressure	In	1/4	1/4
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump	
Casing			Galvanized Steel	
Filter			Included	
Condensate Lift		In	27-9/16	27-9/16
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:

*1 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

*2 These values are measured in anechoic chamber at a distance of 4.6 feet below the center of unit.

Table 3 —Data Table

MODEL NAME			40VMM018A--3	40VMM024A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity*1		Btu/h	18,000	24,000
Sensible Cooling Capacity*1		Btu/h	14,000	17,730
Heating Capacity*1		Btu/h	21,000	27,000
Electrical Supply	MCA	A	3.13	3.13
	MOCP	A	15	15
Fan	Type		Centrifugal Fan	
	Air flow rate (H/M/L)	cfm	640/540/480	800/640/570
	Max. External static pressure (ESP)	in. WG	0.6	0.6
Fan Motor	Type		DC	
	Input	W	185	230
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Refrigerant Control			Electronic Expansion Valve	
Dimensions		H (in)	10-5/8	10-5/8
		W (in)	48-1/2	48-1/2
		D (in)	30-1/2	30-1/2
Net Weight		lbs	99.2	99.2
Sound pressure level*2		H - dBA	38.6	42.0
		M - dBA	33.6	36.3
		L - dBA	31.9	34.2
Piping Connections	Gas (Low) Pressure	In	5/8	5/8
	Liquid (High) Pressure	In	3/8	3/8
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump	
Casing			Galvanized Steel	
Filter			Included	
Condensate Lift		In	27-9/16	27-9/16
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:

*1 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

*2 These values are measured in anechoic chamber at a distance of 4.6 feet below the center of the unit.

Table 4 —Data Table

MODEL NAME			40VMM030A--3	40VMM036A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Total Cooling Capacity*1		Btu/h	30,000	38,000
Sensible Cooling Capacity*1		Btu/h	23,140	27,460
Heating Capacity*1		Btu/h	34,000	42,000
Electrical Supply	MCA	A	5.00	5.00
	MOCP	A	15	15
Fan	Type		Centrifugal Fan	
	Air flow rate (H/M/L)	cfm	1070/900/780	1200/980/860
	Max. External static pressure (ESP)	in. WG	0.6	0.6
Fan Motor	Type		DC	
	Input	W	290	325
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum fin	
Refrigerant Control			Electronic Expansion Valve	
Dimensions		H (in)	11-7/8	11-7/8
		W (in)	50-3/4	50-3/4
		D (in)	34-1/8	34-1/8
Net Weight		lbs	124.0	124.0
Sound pressure level*2		H - dBA	46.7	47.8
		M - dBA	42.3	43.8
		L - dBA	39.4	40.8
Piping Connections	Gas (Low) Pressure	In	5/8	5/8
	Liquid (High) Pressure	In	3/8	3/8
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump	
Casing			Galvanized Steel	
Filter			Included	
Condensate Lift		In	27-9/16	27-9/16
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:

*1 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

*2 These values are measured in anechoic chamber at a distance of 4.6 feet below the center of the unit.

Table 5 —Data Table

MODEL NAME			40VMM048A--3
Power Source		V-Ph-Hz	208/230-1-60
Total Cooling Capacity*1		Btu/h	48,000
Sensible Cooling Capacity*1		Btu/h	32,860
Heating Capacity*1		Btu/h	54,000
Electrical Supply	MCA	A	5.00
	MOCP	A	15
Fan	Type		Centrifugal Fan
	Air flow rate (H/M/L)	cfm	1370/1100/980
	Max. External static pressure (ESP)	in. WG	0.6
Fan Motor	Type		DC
	Input	W	370
Heat Exchanger			Inner Groove Copper Tube and Hydrophilic Aluminum fin
Refrigerant Control			Electronic Expansion Valve
Dimensions		H (in)	11-7/8
		W (in)	50-3/4
		D (in)	34-1/8
Net Weight		lbs	124.0
Sound pressure level*2		H - dBA	48.0
		M – dBA	43.8
		L - dBA	41.2
Piping Connections	Gas (Low) Pressure	In	5/8
	Liquid (High) Pressure	In	3/8
Connectable Outdoor Unit			38VMH – Heat Pump 38VMR – Heat Recovery 38VMH-1P – Single Phase Heat Pump
Casing			Galvanized Steel
Filter			Included
Condensate Lift		In	27-9/16
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:

*1 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

*2 These values are measured in anechoic chamber at a distance of 4.6 feet below the center of the unit.

Accessories

Table 6 —Table of Accessories

ACCESSORIES	QUANTITY	OUTLINE	USAGE
PQ connection wire	2		Connects the outdoor unit, indoor unit, and sub MDC
Connection Wire	1		Occupy sensor connecting wire
Pipe Insulation material	2		Heat insulation
Condensate connection	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 Pipes	2		Use for inlet and outlet connections
No Beep Harness	1		Prevent beeping noise

PIPING DIAGRAM

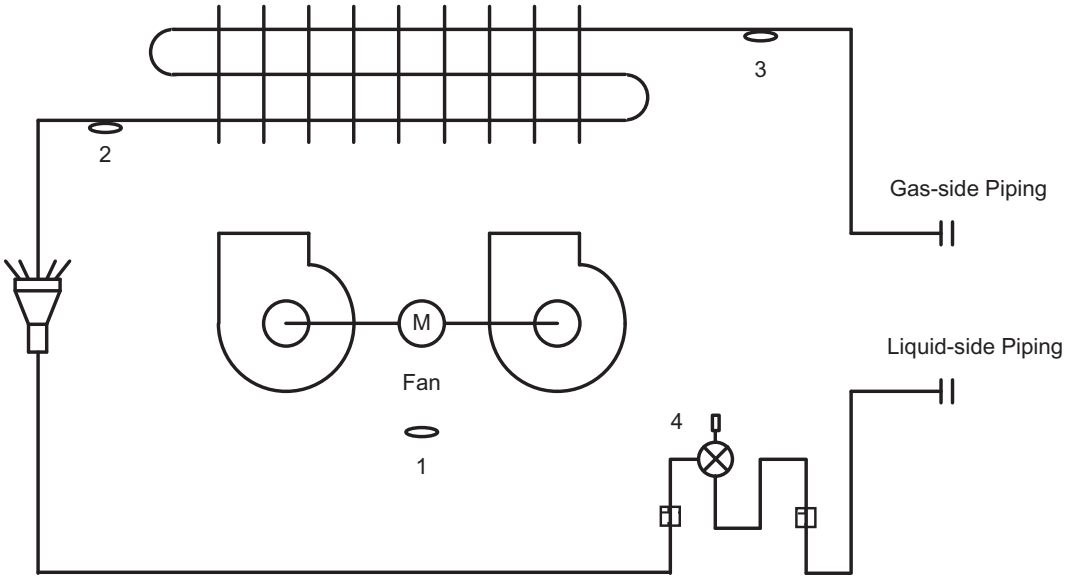


Fig. 5 —Piping

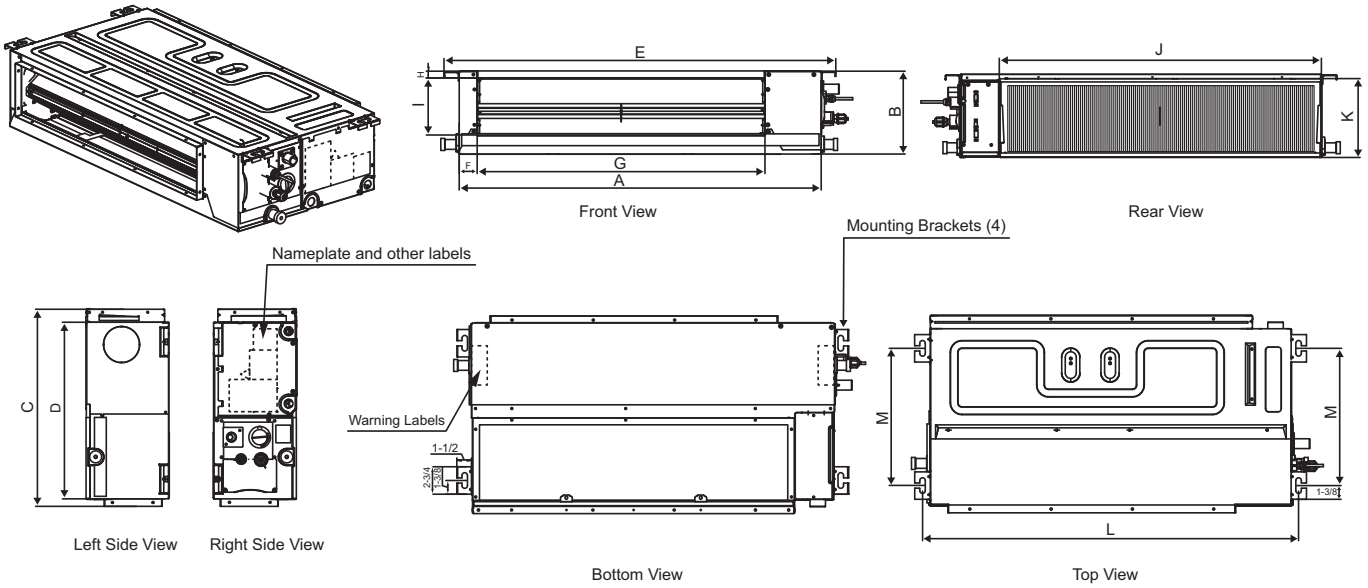
Table 7 —Piping

NUMBER	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 8 —Gas/Liquid Line Sizes

MODEL	GAS	LIQUID
40VMM007A/009A/012A/015A--3	1/2	1/4
40VMM018A/024A/030A/036A/048A--3	5/8	3/8

DIMENSIONS



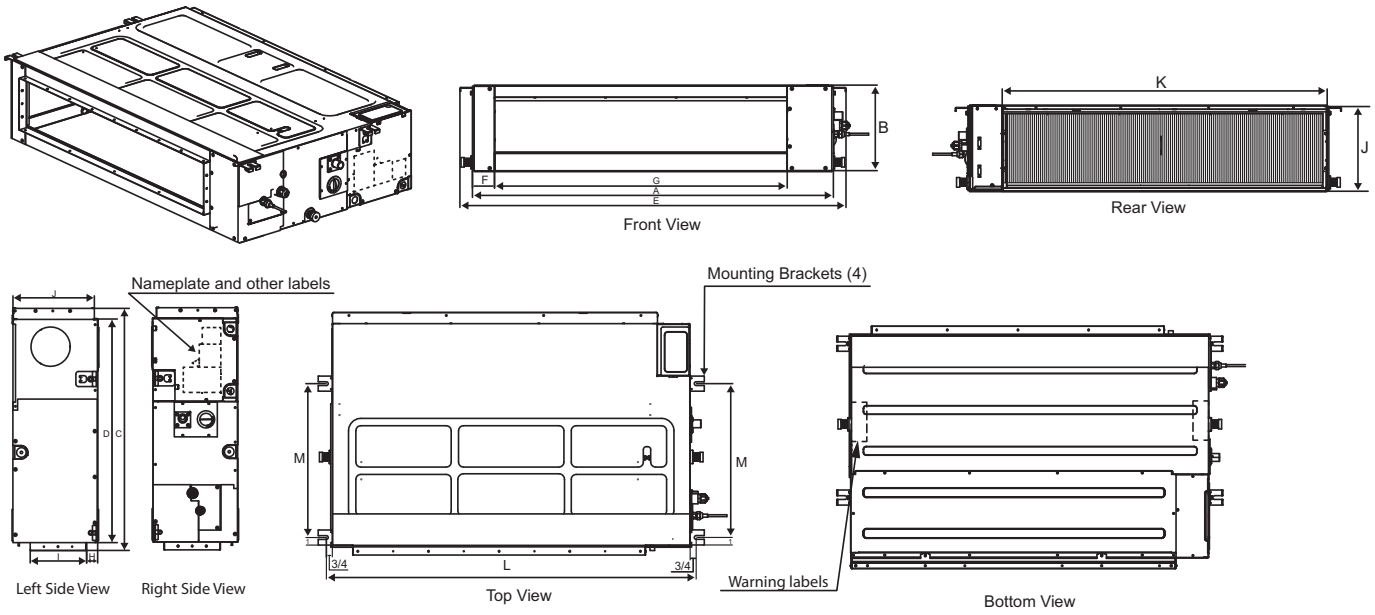
NOTE: All dimensions are shown in inches.

Fig. 6 —40VMM007A/009A

Table 9 —Dimensions 007A/009A

40VMM UNIT SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M
007A, 009A	36-1/4	8-1/4	19-3/4	17-3/4	39-1/4	1-3/4	28-3/4	5/8	5-3/4	32-1/4	7-7/8	37-3/4	13-3/4

DIMENSIONS (CONT.)



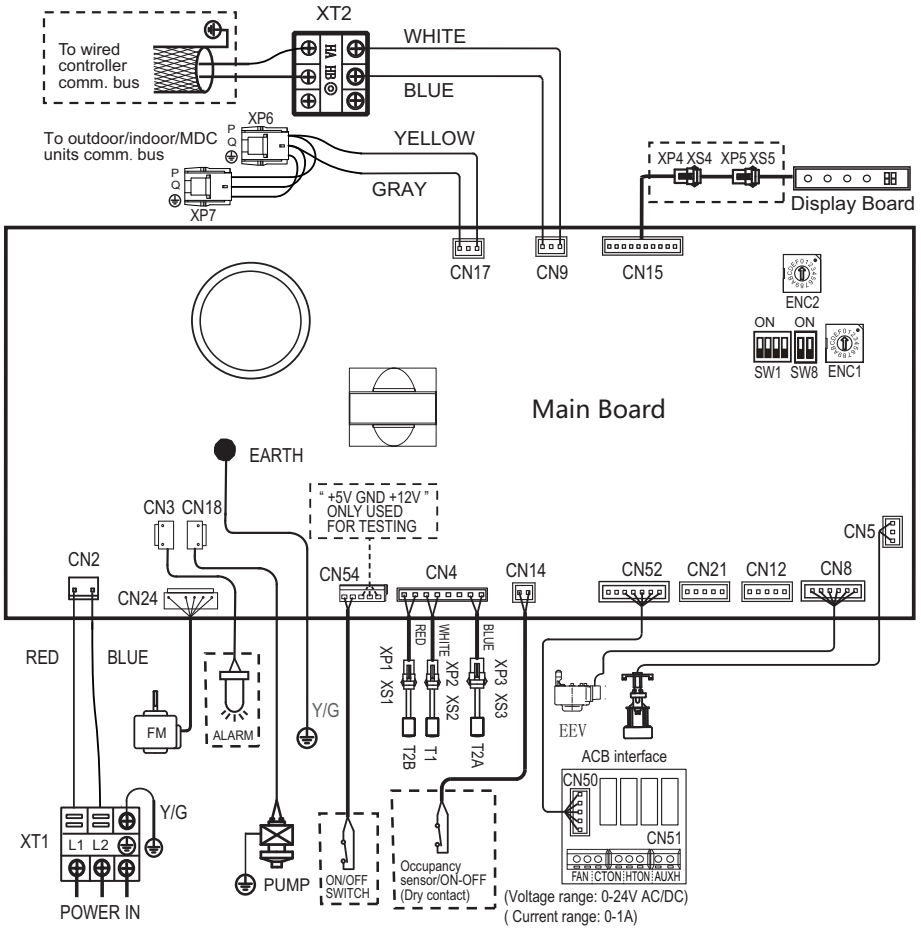
NOTE: All dimensions are shown in inches.

Fig. 7 —40VMM0012A-048A

Table 10 —Dimensions 012A-048A

CAPACITY	A	B	C	D	E	F	G	H	I	J	K	L	M
012A	36-1/4	10-5/8	25	22-1/2	39-3/4	2-5/8	28	1-3/8	7	10-1/4	32	37-3/4	13-3/4
015A, 018A, 024A	44-7/8	10-5/8	30-1/2	28	48-1/2	2-5/8	36-3/4	1-3/8	7	10-1/4	40-3/4	46-1/2	19-1/4
030A, 036A, 048A	47-1/8	11-7/8	34-1/8	31-1/2	50-3/4	3-1/8	37-7/16	1-1/2	8	11-3/8	43	48-7/8	19-5/8

WIRING DIAGRAMS



NOTE: Field wiring must use copper conductors only.

Fig. 8 —Wiring Diagram (40VMM007A to 009A--3)

Table 11 —Code

CODE	TITLE
FM	Indoor Fan Motor
T1	Room Temp. Sensor
T2A	Inlet Pipe Temp. Sensor
T2B	Outlet Pipe Temp. Sensor
ALARM	Warning Lamp
EEV	Electronic Expansion Valve
XP1-7 XS1-5	Connectors
XT1-2	Terminal
PUMP	Pump Motor
CS	Water Level Switch

Table 12 —J1 Definition

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

Table 13 —SW8 Definition

ON SW8 12	(Reserved)
ON SW8 12	(Reserved)

Table 14 —ENC1 Definition

ENC1	(Reserved)

Table 15 —ENC2 Definition

ENC2	(Reserved)

Table 16 —0/1 Definition

ON	Means 0
ON	Means 1

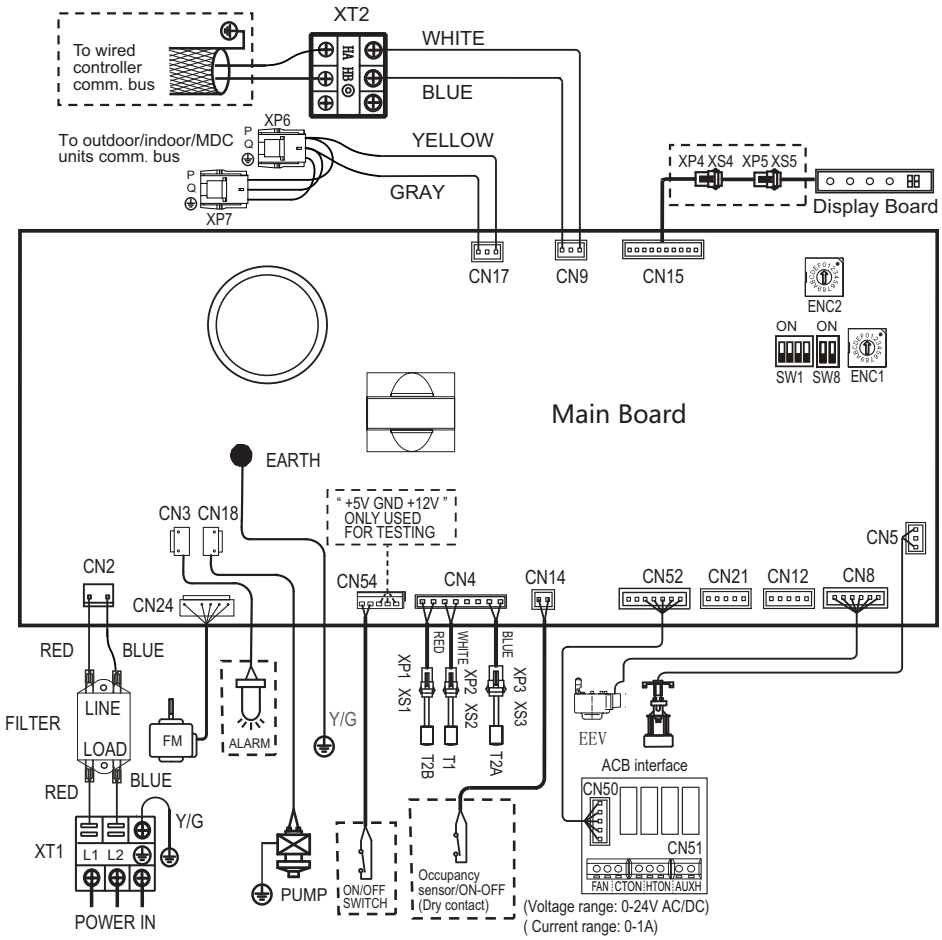
Table 17 —S1 Definition

SW1 ON 1234	0 means auto addressing mode (Default)
	1 means factory test mode
SW1 ON 1234	0 means normal mode (Default)
	1 means factory self-checking mode (Reserved)
SW1 ON 1234	(Reserved)
SW1 ON 1234	0 means standard indoor unit (Default)
	1 means main indoor unit (Must be addressed #63)

Table 18 —Error Code

ERROR CODE	ERROR CONTENT	ERROR CODE	ERROR CONTENT
dd	Mode conflict	UU	MDC error in auto system-check mode
E1	Comm. error with outdoor unit	E9	Comm. error with wired controller
E2	Temp. sensor (T1) error	Eb	EEV error
E4	Temp. sensor (T2B) error	EC	Indoor fan error in auto system-check mode
E5	Temp. sensor (T2A) error	Ed	Outdoor unit error
E6	DC fan error	EE	Water level alarm
E7	EEPROM error	EF	No address when first time powered on

WIRING DIAGRAMS (CONT.)



NOTE: Field wiring must use copper conductors only.

Fig. 9 —Wiring Diagram (40VMM012A to 048A--3)

Table 19 —Code

CODE	TITLE
FM	Indoor Fan Motor
T1	Room Temp. Sensor
T2A	Inlet Pipe Temp. Sensor
T2B	Outlet Pipe Temp. Sensor
ALARM	Warning Lamp
EEV	Electronic Expansion Valve
XP1-7 XS1-5	Connectors
XT1-2	Terminal
PUMP	Pump Motor
CS	Water Level Switch

Table 20 —J1 Definition

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

Table 21 —SW8 Definition

SW8 ON 12	(Reserved)
SW8 ON 12	(Reserved)

Table 22 —ENC1 Definition

ENC1	(Reserved)

Table 23 —ENC2 Definition

ENC2	(Reserved)

Table 24 —0/1 Definition

ON	Means 0
ON	Means 1

Table 25 —S1 Definition

SW1 ON 1234	0 means auto addressing mode (Default)
	1 means factory test mode
SW1 ON 1234	0 means normal mode (Default)
	1 means factory self-checking mode (Reserved)
SW1 ON 1234	(Reserved)
SW1 ON 1234	0 means standard indoor unit (Default)
	1 means main indoor unit (Must be addressed #63)

Table 26 —Error Code

ERROR CODE	ERROR CONTENT	ERROR CODE	ERROR CONTENT
dd	Mode conflict	UU	MDC error in auto system-check mode
E1	Comm. error with outdoor unit	E9	Comm. error with wired controller
E2	Temp. sensor (T1) error	Eb	EEV error
E4	Temp. sensor (T2B) error	EC	Indoor fan error in auto system-check mode
E5	Temp. sensor (T2A) error	Ed	Outdoor unit error
E6	DC fan error	EE	Water level alarm
E7	EEPROM error	EF	No address when first time powered on

ELECTRICAL CHARACTERISTICS

Table 27 —Electrical Characteristics

MODEL	POWER SUPPLY					IFM	
	HZ	VOLTS	VOLTAGE RANGE	MCA	MOCP	W	FLA
40VMM007A--3	60	208/230V	Max.253V Min.187V	1.25	15	100	1.00
40VMM009A--3				1.25	15	100	1.00
40VMM012A--3				3.13	15	100	1.20
40VMM015A--3				3.13	15	150	1.50
40VMM018A--3				3.13	15	150	1.80
40VMM024A--3				3.13	15	150	2.00
40VMM030A--3				5.0	15	240	2.50
40VMM036A--3				5.0	15	240	2.80
40VMM048A--3				5.0	15	240	3.00

SYMBOLS:
MCA: Minimum Circuit Amps (A)
MOCP: Maximum Overcurrent Protection
W: Fan Motor Rated Output (W)
FLA: Full Load Amps (A)
IFM: Indoor Fan Motor

FAN PERFORMANCE

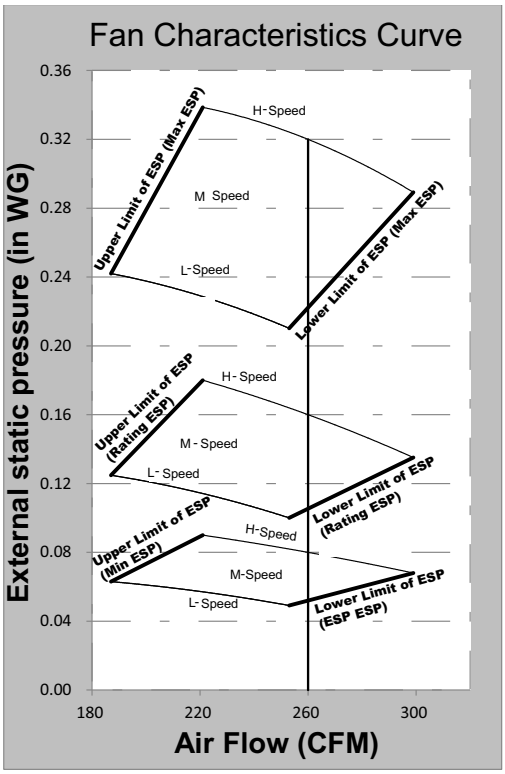


Fig. 10 —Fan Performance 007A

Table 28 —Fan Performance 007A

ESP	Fan speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP (in)	Mid CFM	SP (in)	Min CFM	SP (in)
0.08	H	299	0.07	260	0.08	221	0.09
0.16	H	299	0.14	260	0.16	221	0.18
0.24	H	299	0.22	260	0.24	221	0.27
0.32	H	299	0.29	260	0.32	221	0.34

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

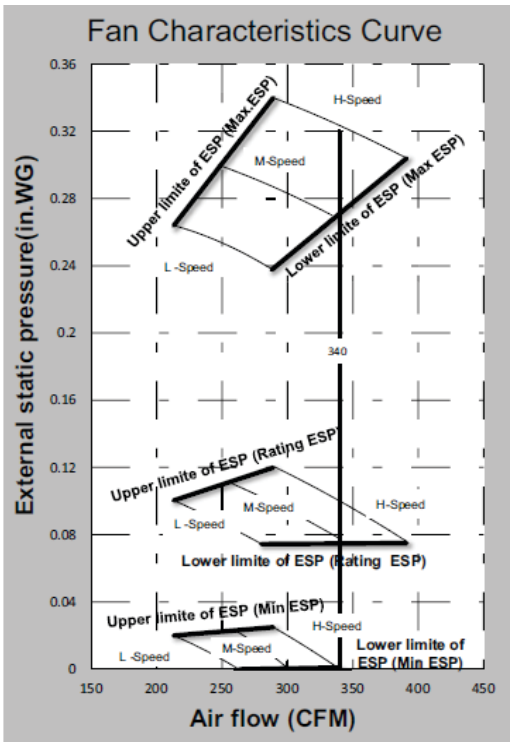


Fig. 11 —Fan Performance 009A

Table 29 —Fan Performance 009A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.00	H	391	0.00	340	0.00	289	0.01
0.04	H	391	0.00	340	0.04	289	0.07
0.08	H	391	0.04	340	0.08	289	0.11
0.12	H	391	0.09	340	0.12	289	0.15
0.16	H	391	0.14	340	0.16	289	0.18
0.20	H	391	0.18	340	0.20	289	0.22
0.24	H	391	0.20	340	0.24	289	0.27
0.28	H	391	0.24	340	0.28	289	0.31
0.32	H	391	0.30	340	0.32	289	0.32

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

FAN PERFORMANCE (CONT.)

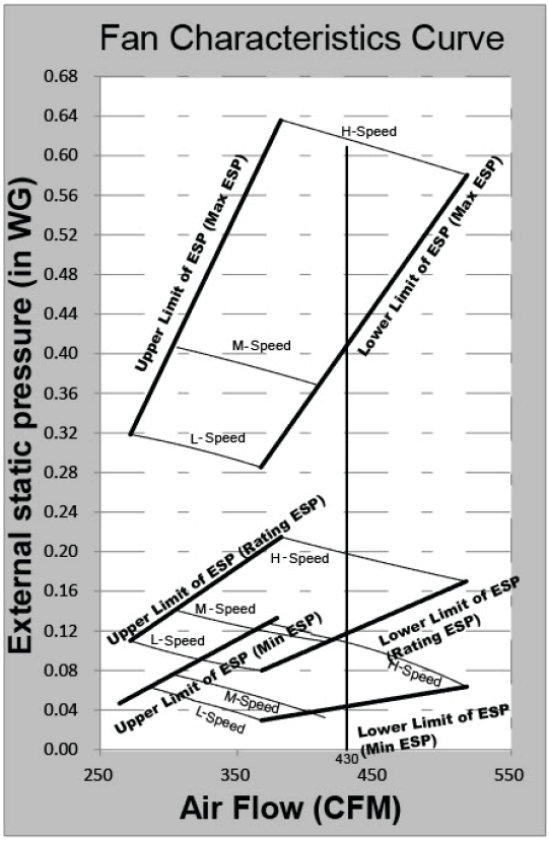


Fig. 12 —Fan Performance 012A

Table 30 —Fan Performance 012A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	518	0.06	430	0.10	383	0.12
0.20	H	518	0.17	430	0.19	383	0.21
0.30	H	518	0.28	430	0.31	383	0.33
0.40	H	518	0.38	430	0.39	383	0.42
0.50	H	518	0.49	430	0.51	383	0.54
0.60	H	518	0.58	430	0.61	383	0.64

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

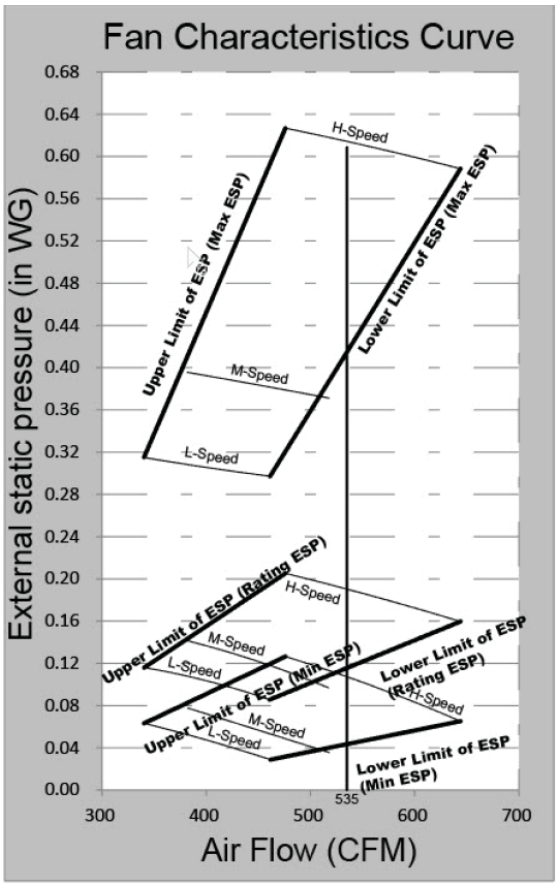


Fig. 13 —Fan Performance 015A

Table 31 —Fan Performance 015A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	644	0.07	535	0.10	476	0.13
0.20	H	644	0.16	535	0.18	476	0.21
0.30	H	644	0.28	535	0.29	476	0.32
0.40	H	644	0.36	535	0.40	476	0.42
0.50	H	644	0.46	535	0.48	476	0.51
0.60	H	644	0.59	535	0.61	476	0.63

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

FAN PERFORMANCE (CONT.)

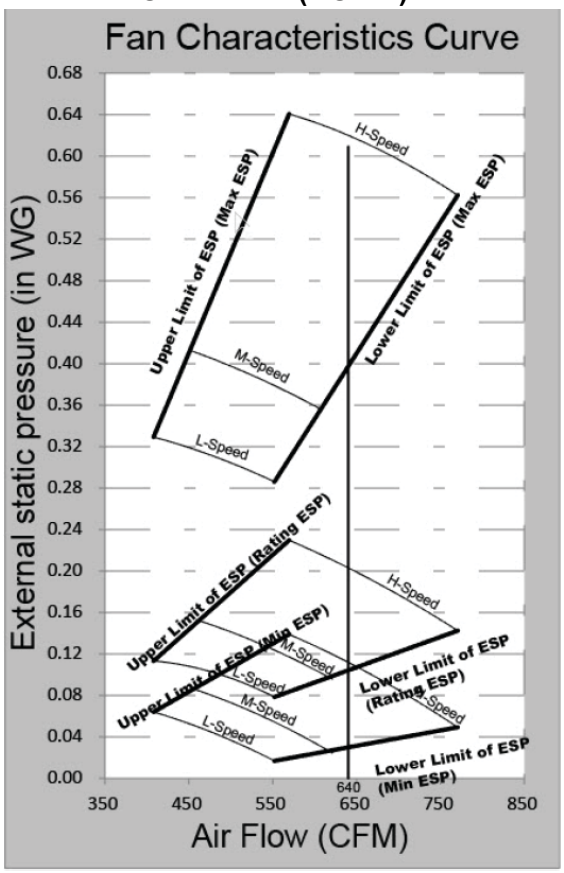


Fig. 14 —Fan Performance 018A

Table 32 —Fan Performance 018A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	771	0.05	640	0.10	570	0.14
0.20	H	771	0.14	640	0.19	570	0.23
0.30	H	771	0.26	640	0.29	570	0.32
0.40	H	771	0.36	640	0.38	570	0.42
0.50	H	771	0.46	640	0.51	570	0.55
0.60	H	771	0.56	640	0.61	570	0.64

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

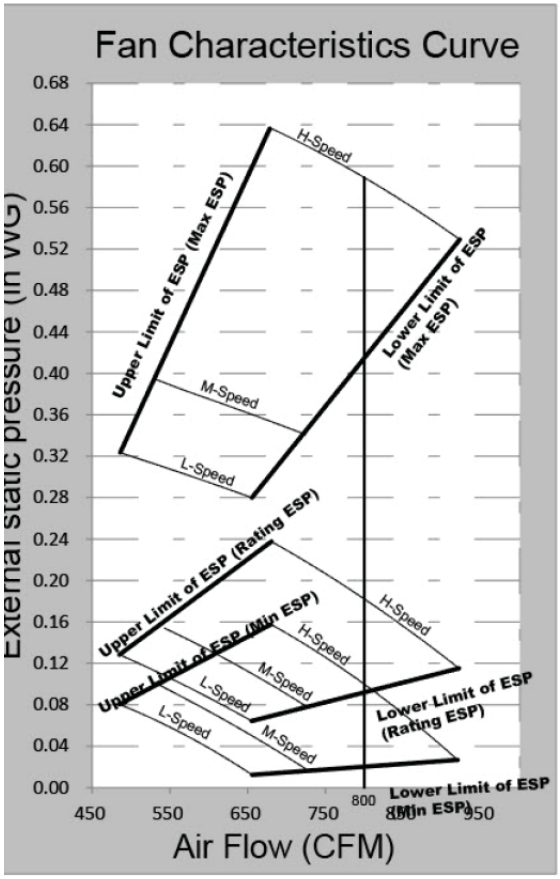


Fig. 15 —Fan Performance 024A

Table 33 —Fan Performance 024A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	920	0.03	800	0.10	680	0.16
0.20	H	920	0.12	800	0.18	680	0.24
0.30	H	920	0.22	800	0.29	680	0.32
0.40	H	920	0.30	800	0.33	680	0.39
0.50	H	920	0.42	800	0.46	680	0.50
0.60	H	920	0.53	800	0.59	680	0.64

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

FAN PERFORMANCE (CONT.)

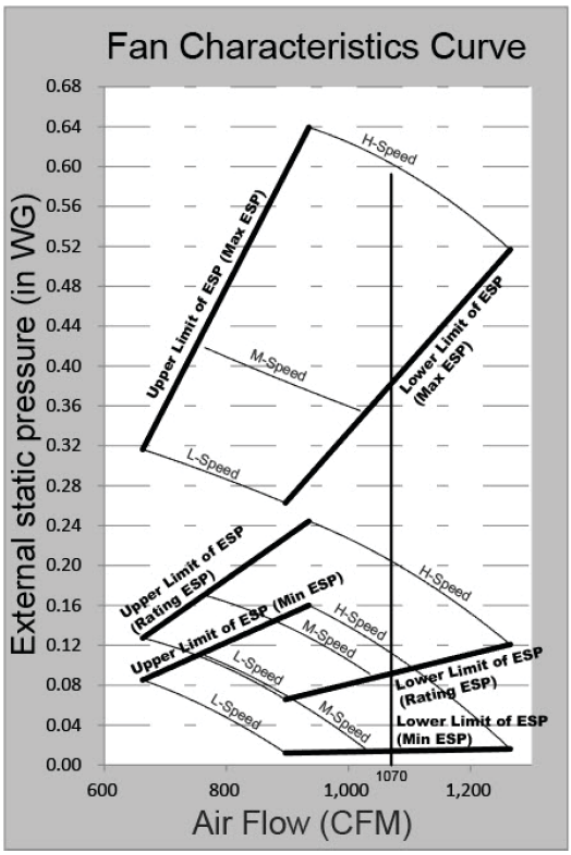


Fig. 16 —Fan Performance 030A

Table 34 —Fan Performance 030A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	1265	0.02	1070	0.10	935	0.16
0.20	H	1265	0.12	1070	0.19	935	0.24
0.30	H	1265	0.24	1070	0.30	935	0.34
0.40	H	1265	0.33	1070	0.38	935	0.42
0.50	H	1265	0.44	1070	0.49	935	0.53
0.60	H	1265	0.52	1070	0.59	935	0.64

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

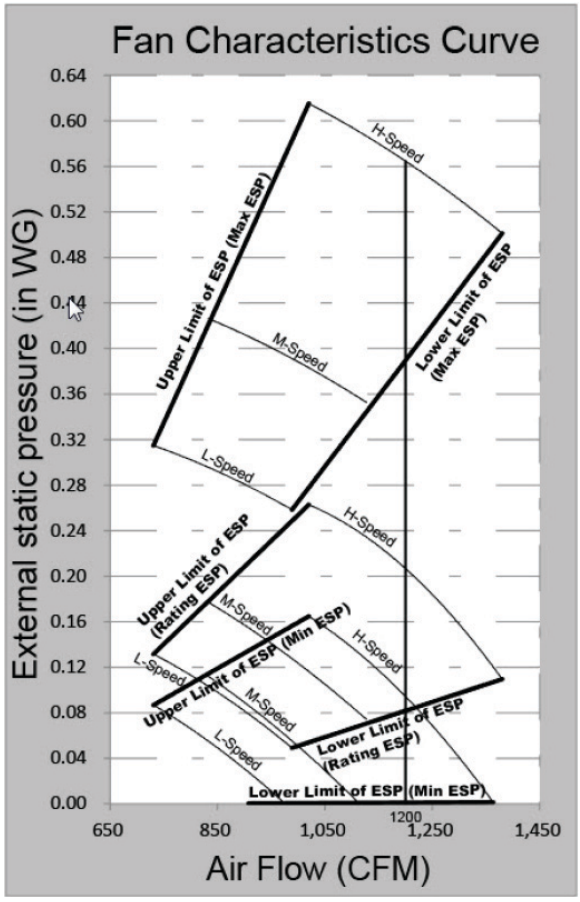


Fig. 17 —Fan Performance 036A

Table 35 —Fan Performance 036A

ESP	Fan Speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	1366	0.00	1200	0.09	1020	0.16
0.20	H	1380	0.11	1200	0.21	1020	0.26
0.30	H	1380	0.21	1200	0.28	1020	0.34
0.40	H	1380	0.34	1200	0.40	1020	0.46
0.50	H	1380	0.44	1200	0.48	1020	0.55
0.60	H	1380	0.50	1200	0.56	1020	0.62

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

FAN PERFORMANCE (CONT.)

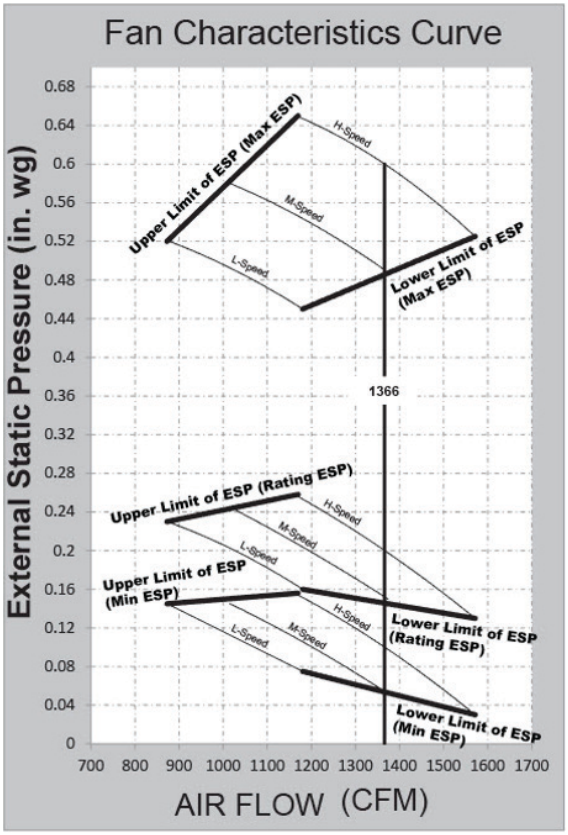


Fig. 18 —Fan Performance 048A

Table 36 —Fan Performance 048A

ESP	Fan speed	Range of available air flow rate in H-Speed					
		Max Point		Mid Point		Min Point	
		Max CFM	SP(in)	Mid CFM	SP(in)	Min CFM	SP(in)
0.10	H	1509	0.00	1370	0.10	1165	0.20
0.20	H	1576	0.07	1370	0.18	1165	0.28
0.30	H	1576	0.17	1370	0.29	1165	0.36
0.40	H	1576	0.31	1370	0.41	1165	0.47
0.50	H	1576	0.38	1370	0.52	1165	0.58
0.60	H	1576	0.45	1370	0.54	1165	0.62

LEGEND:
ESP — External Static Pressure
SP — Static Pressure

NOTES FOR FIGS. 10 - 18:

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

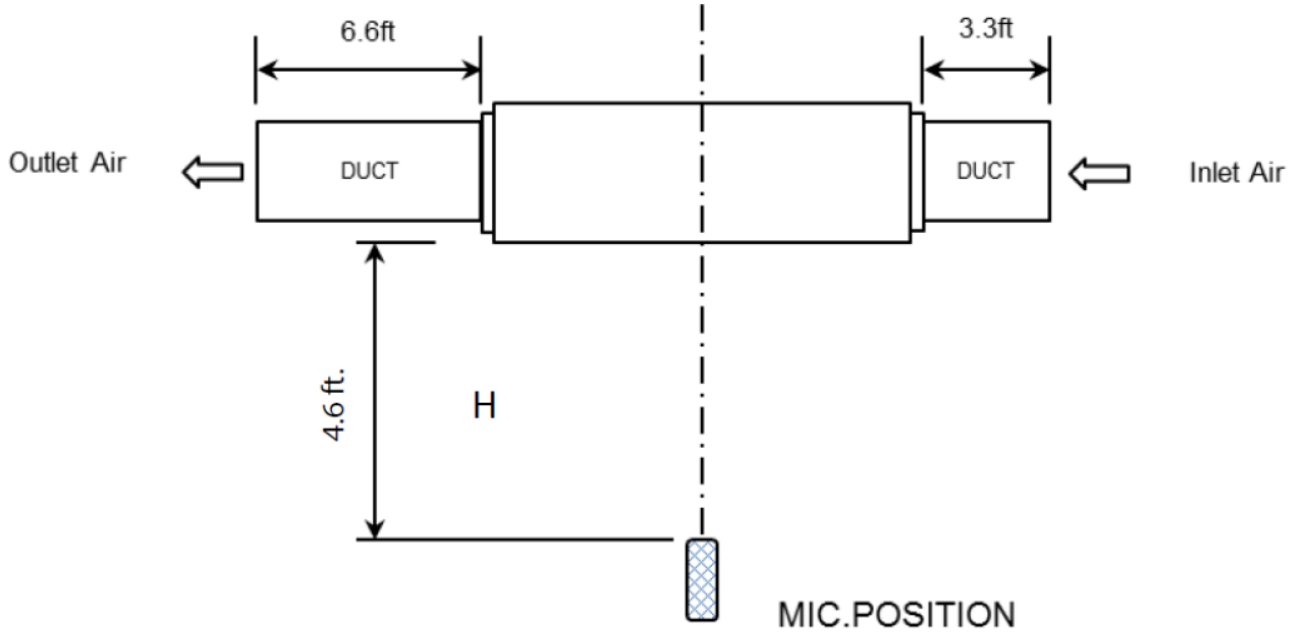


Fig. 19 —Overall Sound Levels

Table 37 —Cooling Mode

MODEL	H	M	L
40VMM007A--3	32.1	31.2	31.1
40VMM009A--3	32.6	32.4	31.8
40VMM012A--3	36.8	33.7	32.7
40VMM015A--3	37.0	33.7	32.3
40VMM018A--3	38.0	33.8	32.2
40VMM024A--3	41.1	36.4	34.7
40VMM030A--3	44.7	40.6	37.3
40VMM036A--3	46.1	41.5	38.3
40VMM048A--3	47.2	42.5	40.4

Table 38 —Heating Mode

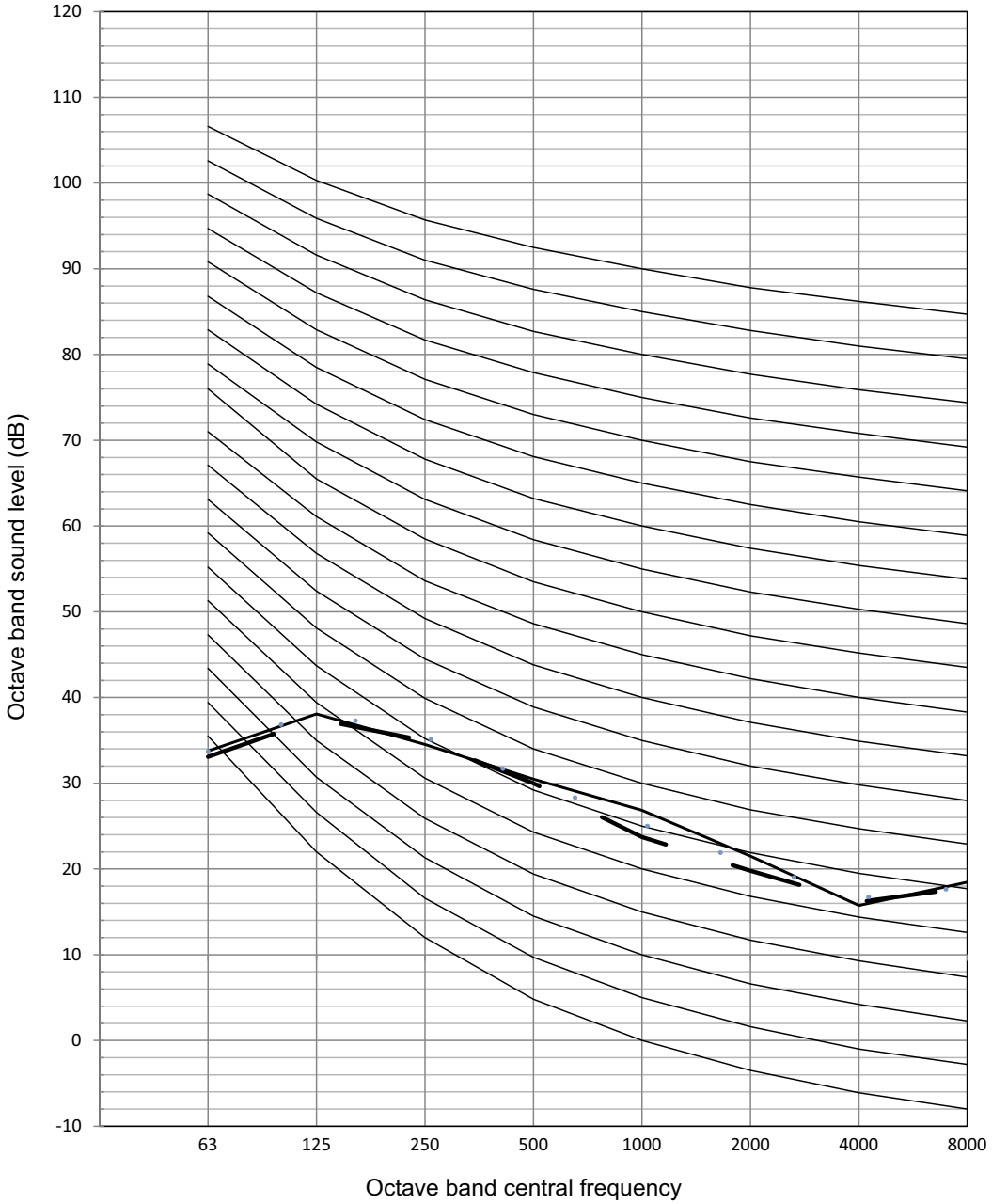
MODEL	H	M	L
40VMM007A--3	31.4	29.1	29.0
40VMM009A--3	32.7	30.7	29.7
40VMM012A--3	36.4	31.7	29.9
40VMM015A--3	35.7	31.3	30.0
40VMM018A--3	38.6	33.0	31.1
40VMM024A--3	41.3	36.2	34.0
40VMM030A--3	44.7	40.4	37.0
40VMM036A--3	46.3	41.2	38.0
40VMM048A--3	47.2	42.3	40.0

NOTE: Units are in dBA

NC Curves

40VMM007A--3

NOTE: Power source: 208/230V, 60Hz

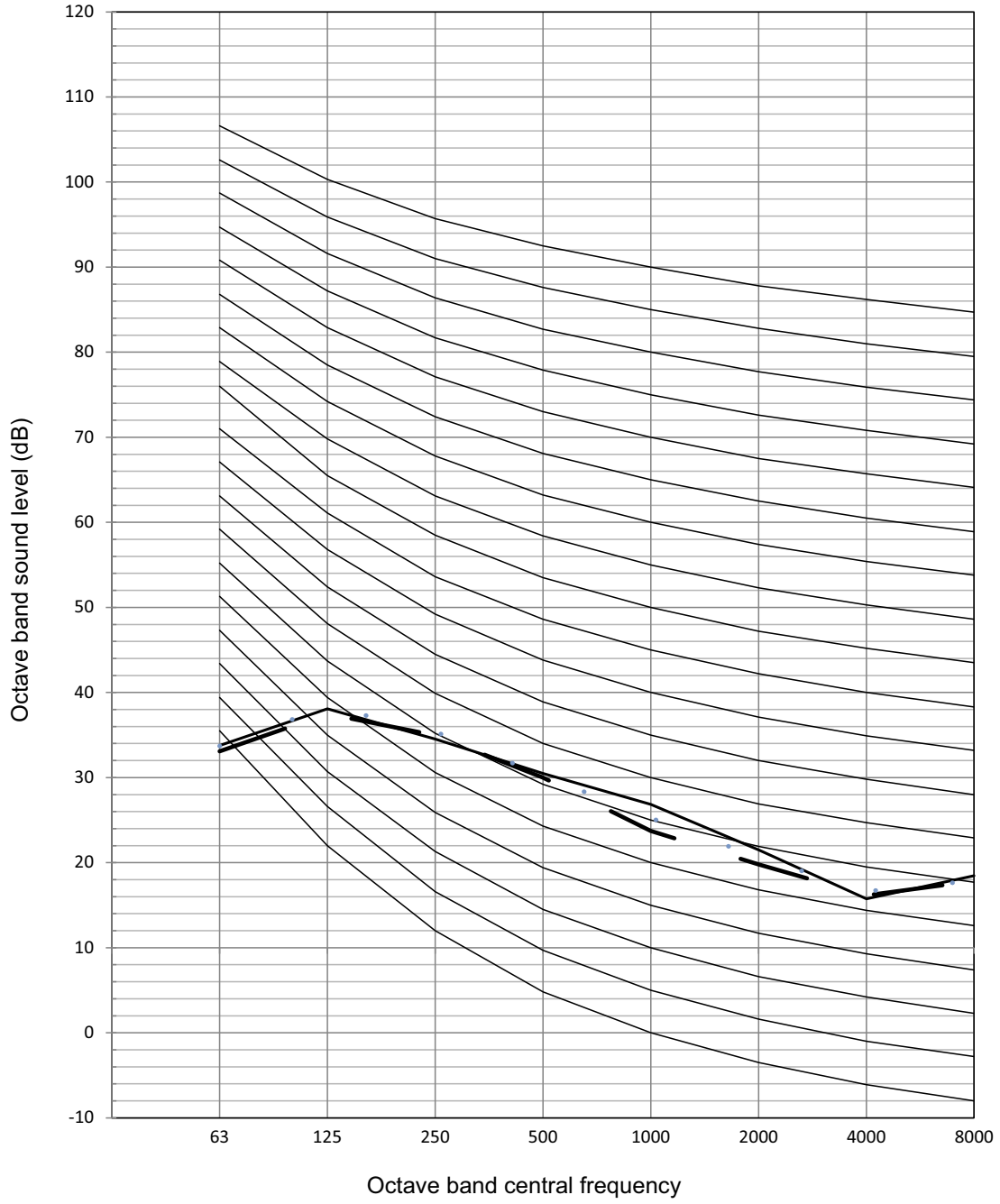


		63	125	250	500	1000	2000	4000	8000
High	60Hz	5.9	14.9	20.1	23.3	23.1	18.6	14.2	19.1
Medium	60Hz	4.3	11.5	16.8	20.1	19.3	15.3	14.0	19.8
Low	60Hz	11.8	11.7	17.3	20.3	19.0	15.1	14.4	18.6

Fig. 20 —40VMM007A--3 NC Curves

40VMM009A--3

NOTE: Power source: 208/230V, 60Hz

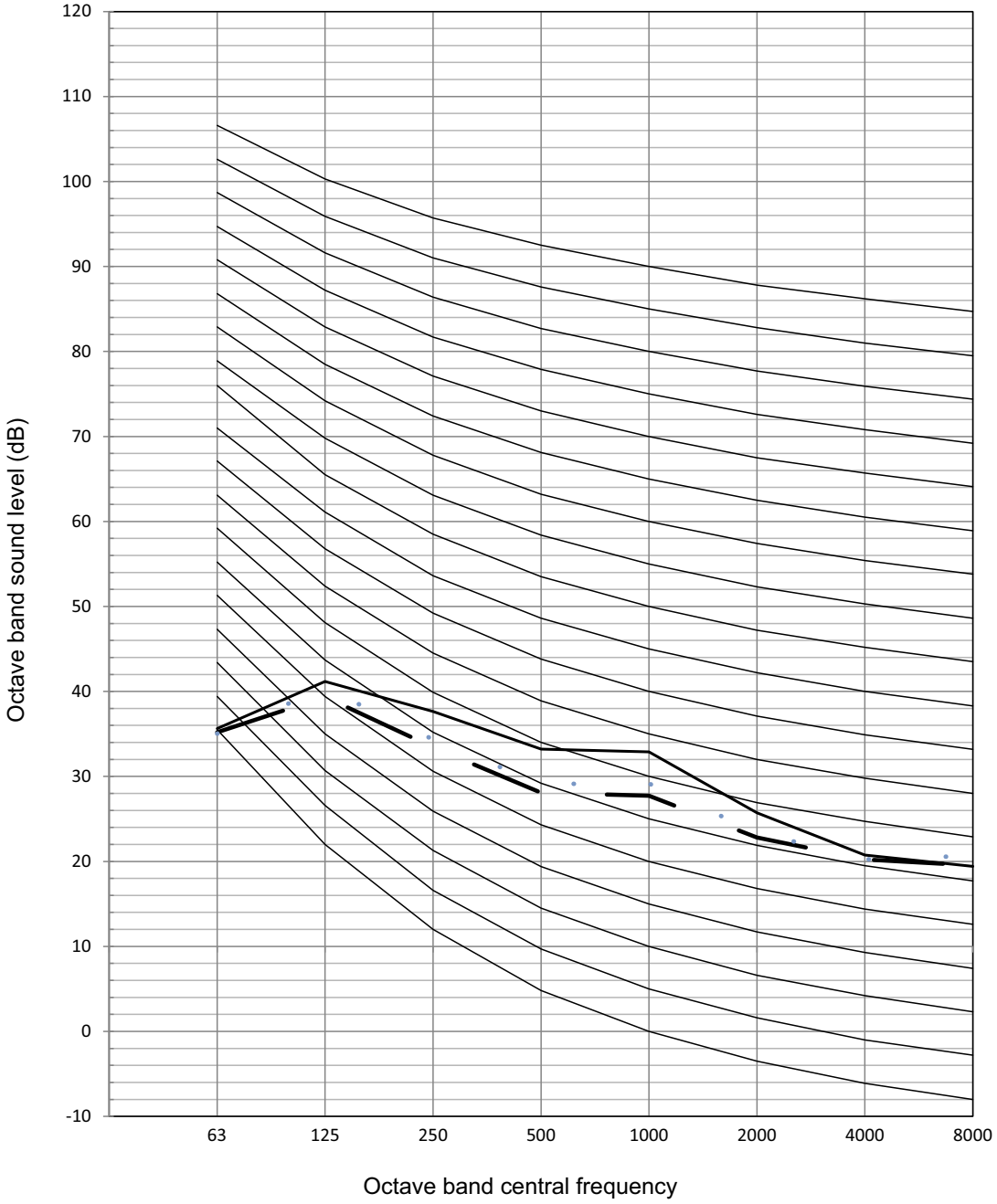


		63	125	250	500	1000	2000	4000	8000
High	60Hz	33.8	38.1	34.5	30.5	26.9	21.5	15.7	18.4
Medium	60Hz	33.7	38.3	35.4	30.2	25.2	20.6	16.6	17.9
Low	60Hz	33.1	37.5	35.0	30.0	23.7	19.8	16.2	17.8

Fig. 21 —40VMM009A--3 NC Curves

40VMM012A--3

NOTE: Power source: 208/230V, 60Hz

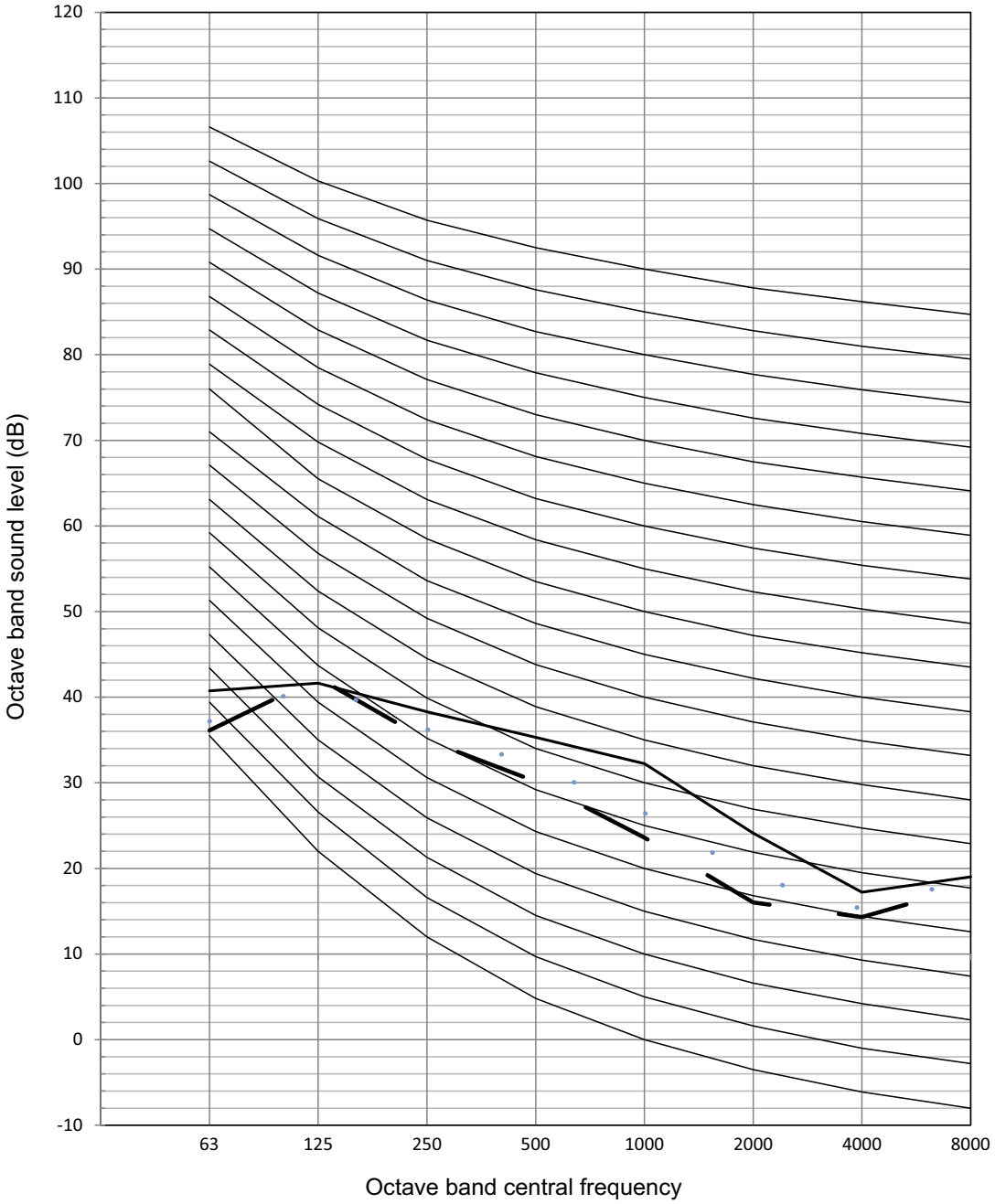


		63	125	250	500	1000	2000	4000	8000
High	60Hz	35.6	41.2	37.6	33.2	32.9	25.7	20.7	19.4
Medium	60Hz	35.0	40.4	34.4	29.1	29.2	23.4	20.2	20.7
Low	60Hz	35.2	39.3	33.4	28.1	27.7	22.8	20.2	19.5

Fig. 22 —40VMM012A--3

40VMM015A--3

NOTE: Power source: 208/230V, 60Hz

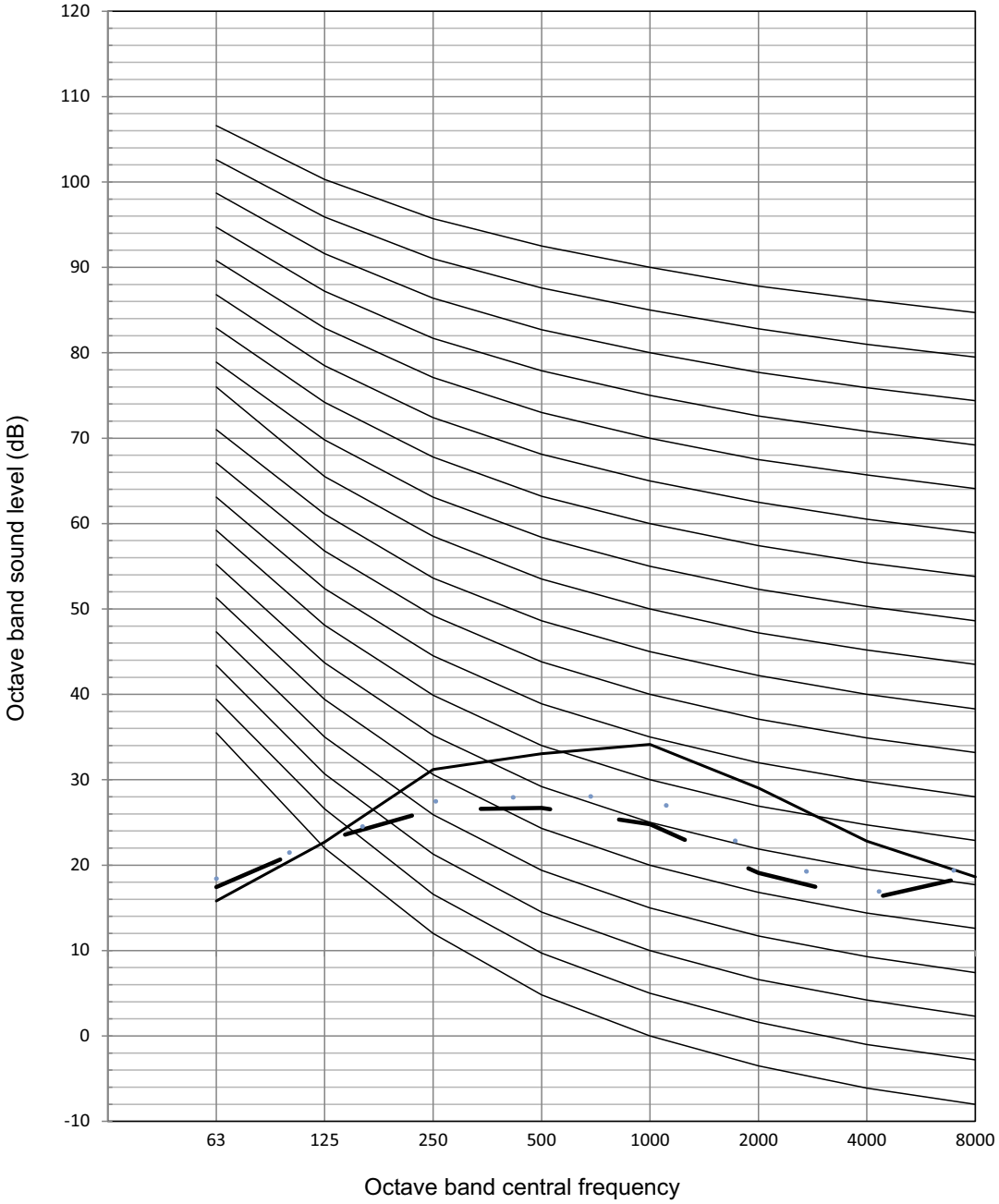


		63	125	250	500	1000	2000	4000	8000
High	60Hz	40.7	41.6	38.3	35.3	32.2	24.1	17.2	19.0
Medium	60Hz	37.2	41.5	36.2	32.0	26.5	19.1	15.3	18.8
Low	60Hz	36.1	42.3	35.0	30.2	23.6	16.0	14.3	17.9

Fig. 23 —40VMM015A--3

40VMM018A--3

NOTE: Power source: 208/230V, 60Hz

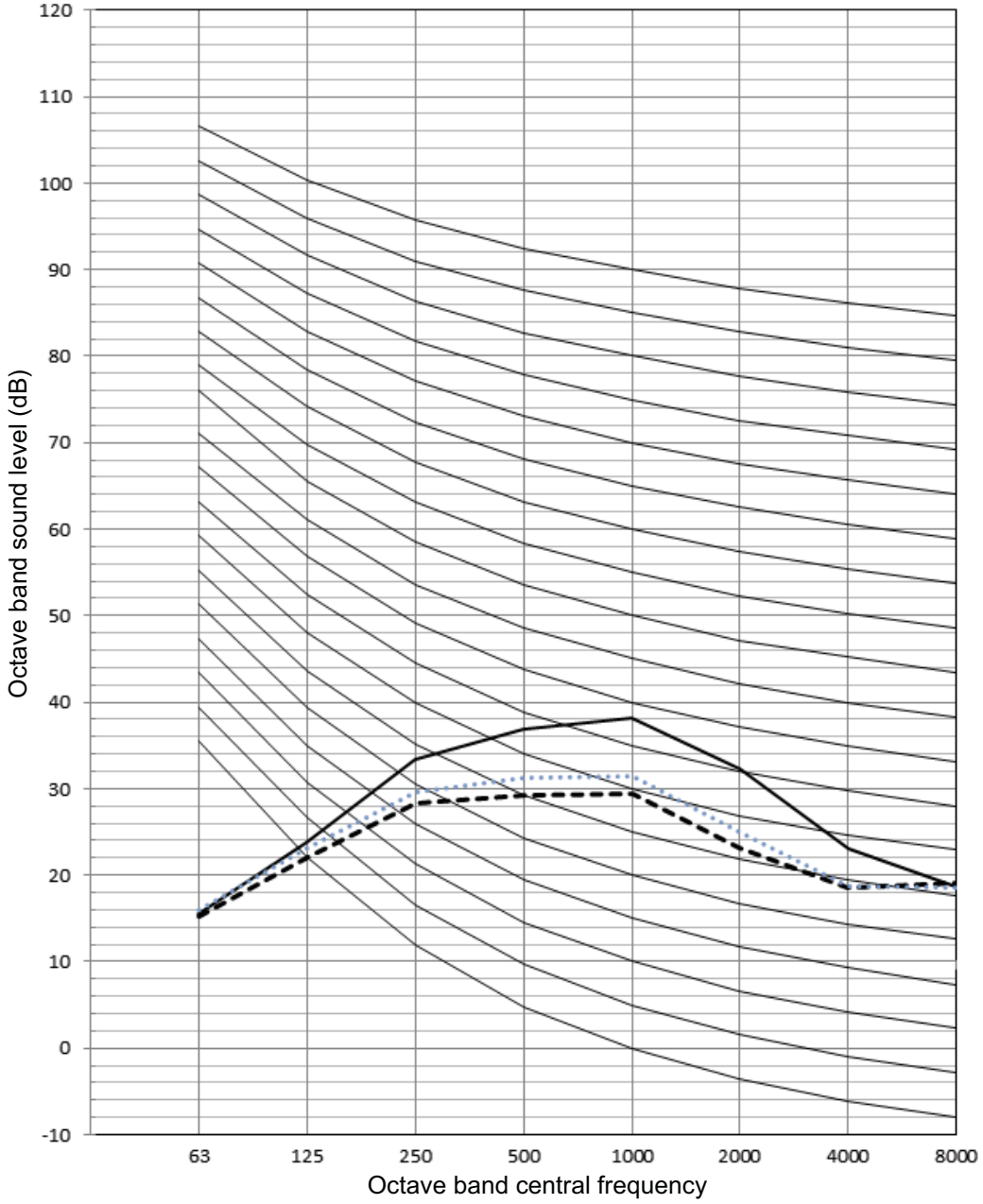


		63	125	250	500	1000	2000	4000	8000
High	60Hz	15.8	22.7	31.2	33.0	34.1	29.0	22.8	18.6
Medium	60Hz	18.4	23.0	27.4	28.1	28.0	21.5	16.5	20.1
Low	60Hz	17.4	22.9	26.5	26.7	24.8	19.1	16.0	18.8

Fig. 24 —40VMM018A--3

40VMM024A--3

NOTE: Power source: 208/230V, 60Hz

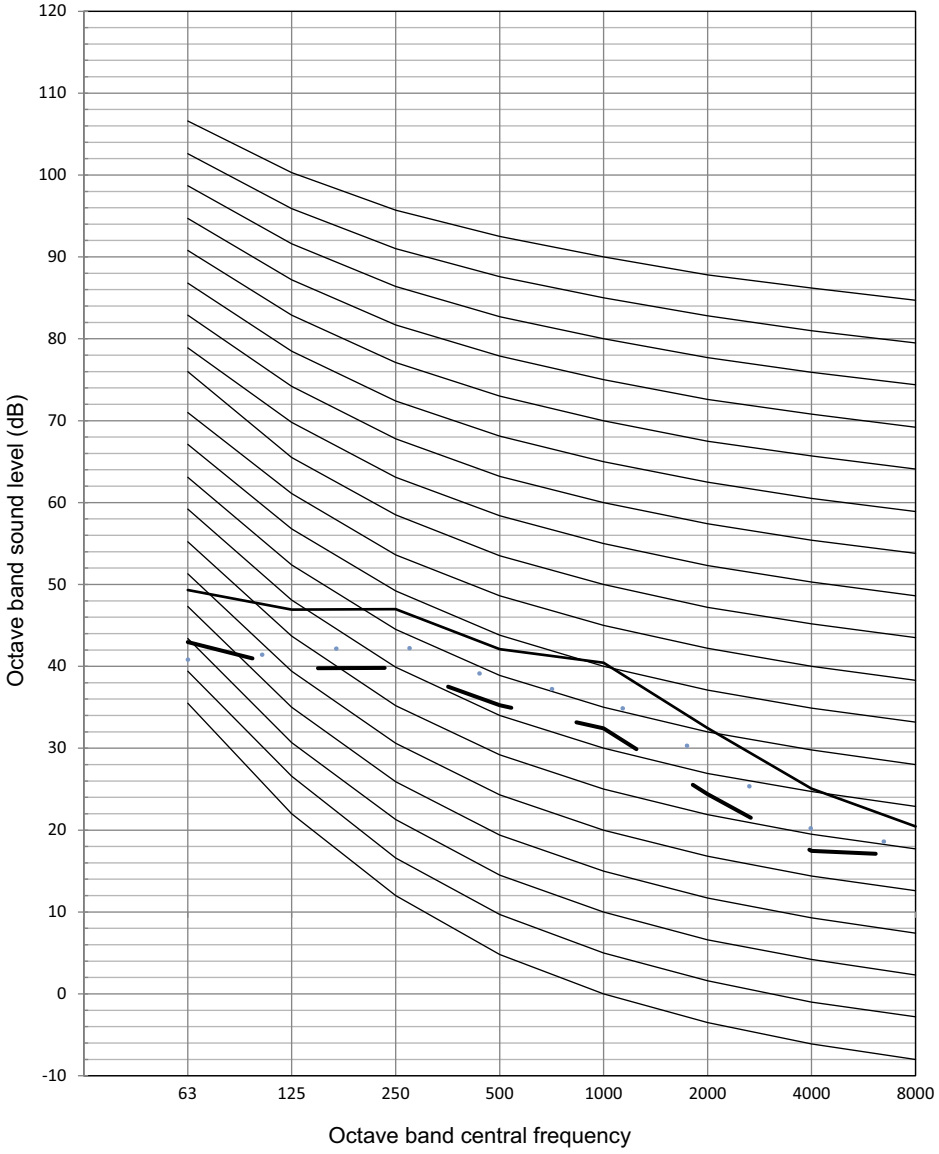


		63	125	250	500	1000	2000	4000	8000
High	60Hz	15.5	23.9	33.3	36.9	38.3	32.2	23.2	18.6
Medium	60Hz	16.0	23.2	29.7	31.3	31.5	25.1	18.7	36.4
Low	60Hz	15.2	22.1	28.4	29.3	29.4	23.2	18.5	34.7

Fig. 25 —40VMM024A--3

40VMM030A--3

NOTE: Power source: 208/230V, 60Hz

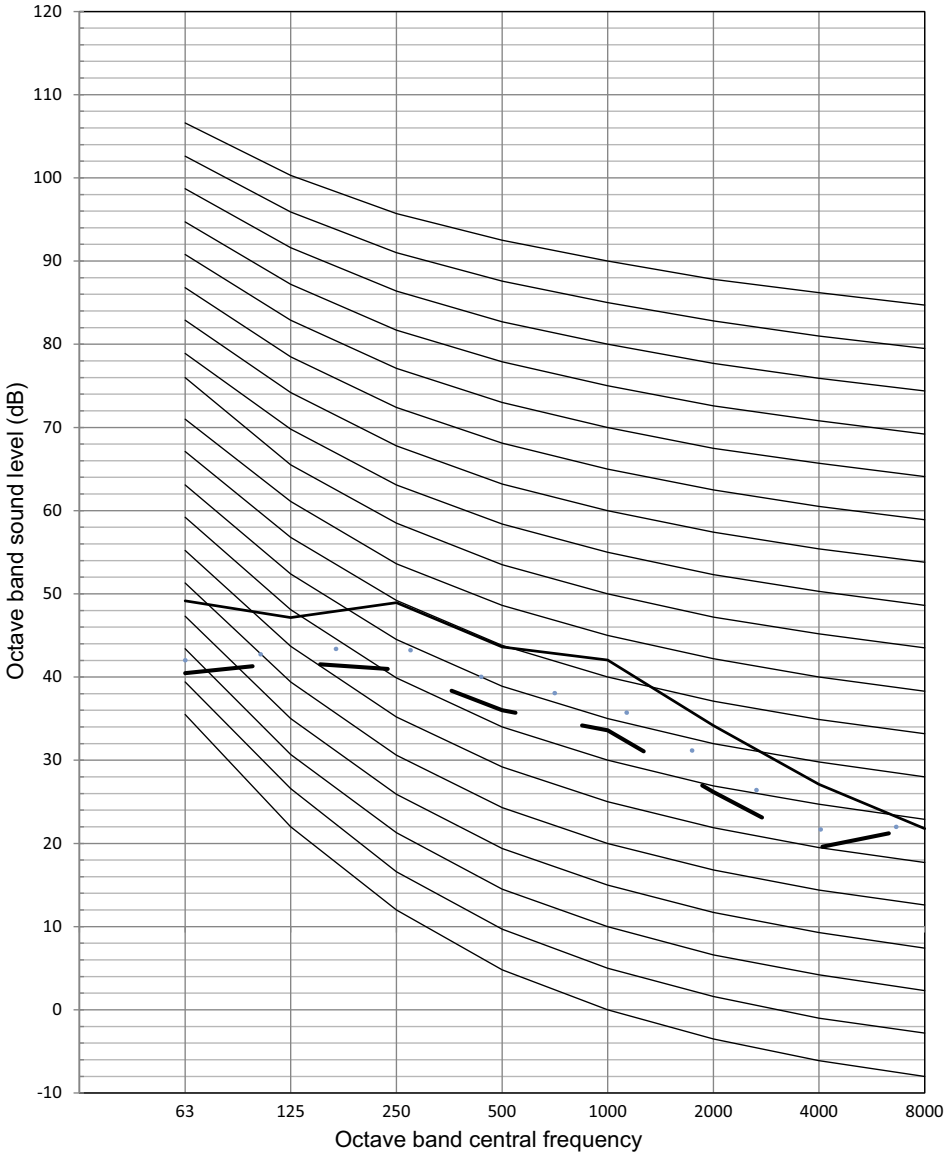


		63	125	250	500	1000	2000	4000	8000
High	60Hz	49.3	46.9	47.0	42.1	40.4	32.5	25.1	20.4
Medium	60Hz	40.8	41.7	42.8	38.2	36.2	28.8	20.2	17.9
Low	60Hz	43.0	39.8	39.8	35.3	32.4	24.4	17.5	16.9

Fig. 26 —40VMM030A--3

40VMM036A--3

NOTE: Power source: 208/230V, 60Hz

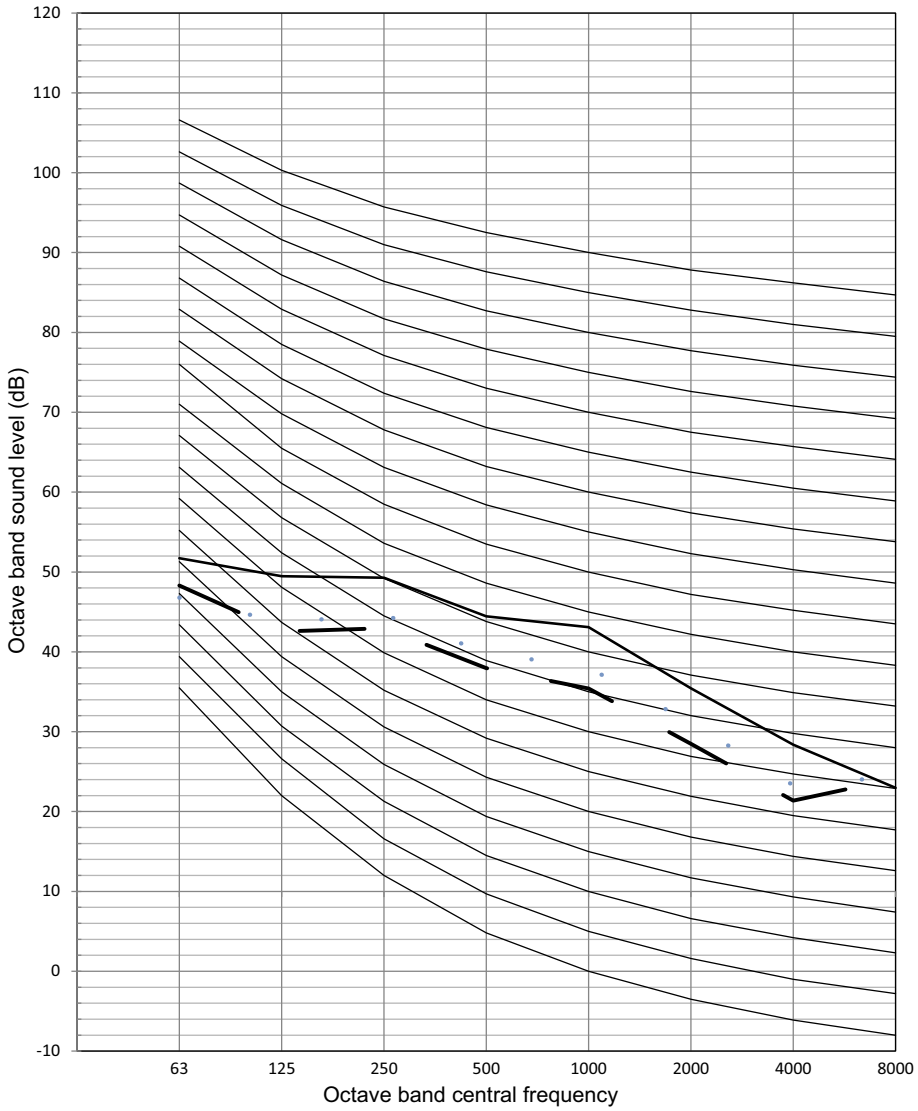


		63	125	250	500	1000	2000	4000	8000
High	60Hz	49.2	47.1	48.9	43.6	42.0	34.2	27.1	21.8
Medium	60Hz	42.0	43.0	43.9	39.1	37.0	29.7	21.7	22.1
Low	60Hz	40.5	41.8	40.9	36.0	33.6	26.2	19.5	22.1

Fig. 27 —40VMM036A--3

40VMM048A--3

NOTE: Power source: 208/230V, 60Hz



		63	125	250	500	1000	2000	4000	8000
High	60Hz	51.7	49.5	49.3	44.5	43.1	35.4	28.4	23.0
Medium	60Hz	46.8	43.7	44.7	39.9	38.0	31.1	23.3	24.4
Low	60Hz	48.3	42.5	43.0	38.0	35.4	28.5	21.4	24.1

Fig. 28 —40VMM048A--3

CAPACITY DATA TABLES

Table 39 —Cooling Capacity

INDOOR UNIT ENTERING AIR CONDITIONS:		COOLING CAPACITY INDICATION																	
		7K		9K		12K		15K		18K		24K		30K		36K		48K	
drybulb(°F)	wetbulb(°F)	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
70	58	4.4	4.31	5.65	5.54	7.54	7.44	9.42	9.32	11.31	11.23	15.07	14.04	18.84	18.36	22.61	20.99	30.15	25.83
70	62	5.55	3.73	7.14	4.82	9.52	6.44	11.9	8.08	14.28	9.71	19.04	12.41	23.8	15.93	28.56	18.56	38.08	23.51
70	67	7	2.93	9	3.8	12	5.05	15	6.35	18	7.58	24	10.06	30	12.52	36	15.05	48	20.03
70	72	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
70	76	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
75	58	4.43	4.40	5.69	5.65	7.59	7.54	9.49	9.42	11.39	11.31	15.18	15.07	18.97	18.84	22.77	22.61	30.36	30.15
75	62	5.59	4.88	7.19	6.27	9.59	8.42	11.98	10.55	14.38	12.71	19.17	15.97	23.97	20.81	28.76	23.87	38.35	29.57
75	67	7.05	4.07	9.06	5.25	12.08	7.02	15.11	8.81	18.13	10.57	24.17	13.61	30.21	17.39	36.25	20.36	48.34	26.08
75	72	7.58	2.82	9.74	3.67	12.99	4.87	16.24	6.12	19.49	7.31	25.98	9.73	32.48	12.09	38.98	14.56	51.97	19.41
75	76	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
80	58	4.46	4.40	5.73	5.65	7.65	7.54	9.55	9.42	11.47	11.31	15.28	15.07	19.10	18.84	22.93	22.61	30.57	30.15
80	62	5.63	5.55	7.24	7.14	9.65	9.52	12.07	11.90	14.48	14.28	19.31	19.04	24.13	23.80	28.96	28.56	38.61	35.65
80	67	7.10	5.22	9.13	6.71	12.17	9.00	15.21	11.27	18.25	13.57	24.34	17.17	30.42	22.26	36.51	25.68	48.67	32.14
80	72	7.63	3.97	9.81	5.12	13.08	6.84	16.35	8.59	19.63	10.31	26.16	13.28	32.71	16.96	39.25	19.87	52.33	25.47
80	76	8.04	2.94	10.34	3.82	13.79	5.09	17.23	6.38	20.68	7.63	27.57	10.09	34.46	12.60	41.36	15.10	55.14	19.98
85	58	4.49	4.40	5.77	5.65	7.70	7.54	9.62	9.42	11.55	11.31	15.39	15.07	19.24	18.84	23.09	22.61	30.79	30.15
85	62	5.67	5.55	7.29	7.14	9.72	9.52	12.15	11.90	14.58	14.28	19.44	19.04	24.30	23.80	29.16	28.56	38.89	38.08
85	67	7.15	6.36	9.19	8.17	12.25	10.98	15.32	13.74	18.38	16.58	24.51	20.73	30.63	27.15	36.76	31.01	49.02	38.22
85	72	7.69	5.12	9.88	6.58	13.17	8.83	16.47	11.06	19.76	13.31	26.34	16.84	32.94	21.84	39.53	25.20	52.70	31.54
85	76	8.10	4.09	10.41	5.28	13.89	7.06	17.35	8.85	20.82	10.64	27.76	13.65	34.70	17.48	41.65	20.42	55.53	26.05
90	58	4.52	4.40	5.81	5.65	7.75	7.54	9.69	9.42	11.63	11.31	15.50	15.07	19.37	18.84	23.25	22.61	31.00	30.15
90	62	5.71	5.55	7.34	7.14	9.79	9.52	12.24	11.90	14.68	14.28	19.58	19.04	24.47	23.80	29.37	28.56	39.16	38.08
90	67	7.20	7.00	9.25	9.00	12.34	12.00	15.42	15.00	18.51	18.00	24.68	24.00	30.85	30.00	37.02	36.00	49.36	44.31
90	72	7.74	6.27	9.95	8.04	13.26	10.81	16.58	13.53	19.90	16.32	26.53	20.41	33.17	26.74	39.80	30.54	53.07	37.62
90	76	8.15	5.24	10.49	6.74	13.98	9.04	17.47	11.32	20.97	13.64	27.96	17.22	34.94	22.37	41.94	25.76	55.91	32.12

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

Table 40 —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
Medium static	7	8.48	8.32	8.16	8.00	7.46	7.11	6.75	6.21
	9	10.60	10.40	10.20	10.00	9.33	8.88	8.44	7.77
	12	14.31	14.04	13.77	13.50	12.60	11.99	11.39	10.49
	15	18.02	17.68	17.34	17.00	15.86	15.10	14.34	13.21
	18	22.27	21.84	21.42	21.00	19.59	18.66	17.72	16.31
	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	44.53	43.69	42.84	42.00	39.19	37.31	35.44	32.63
	48	57.25	56.17	55.08	54.00	50.38	47.97	45.56	41.95

Rated Condition: Condensation temperature is 114.8°F.

TC = Total capacity; KBTU/h

SC = Sensible capacity; KBTU/h