40VMM007A-048A

Medium Static Duct Indoor Unit for

Variable Refrigerant Flow (VRF) Systems

Engineering Data Book

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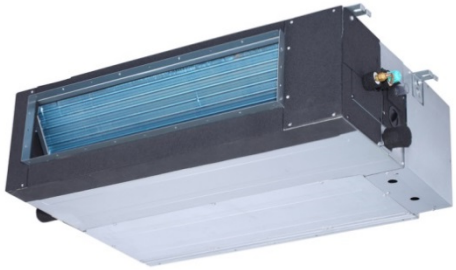
1. External Appearance

40VMM007A/009A--3



40VMM012A--3

40VMM015A/018A/024A--3

40VMM030A/036A/048A--3

2. Specifications

Table 1 – Data Table

Model Name			40VMM007A--3	40VMM009A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Capacity Cooling*1		Btu/h	7,000	9,000
Capacity Heating*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 shielded twisted pair cable 16AWG or 18AWG	
Remark	*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 point 4.6 feet below the center of the unit			

Table 2 – Data Table

Model Name			40VMM012A--3	40VMM015A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Capacity Cooling*1		Btu/h	12,000	15,000
Capacity Heating*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 shielded twisted pair cable 16AWG or 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 point 4.6 feet below the center of the unit

Table 3 – Data Table

Model Name			40VMM018A--3	40VMM024A--3
Power Source		V-Ph-Hz	208/230-1-60	208/230-1-60
Capacity Cooling*1		Btu/h	18,000	24,000
Capacity Heating*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 shielded twisted pair cable 16AWG or 18AWG	

NOTES

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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 point 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
Capacity Cooling*1		Btu/h	30,000	38,000
Capacity Heating*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 shielded twisted pair cable 16AWG or 18AWG	

NOTES

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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 point 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
Capacity Cooling*1		Btu/h	48,000
Capacity Heating*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 shielded twisted pair cable 16AWG or 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 point 4.6 feet below the center of the unit

3. Accessories

Table 6 – Table of Accessories

Name of 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

II. Piping Diagram

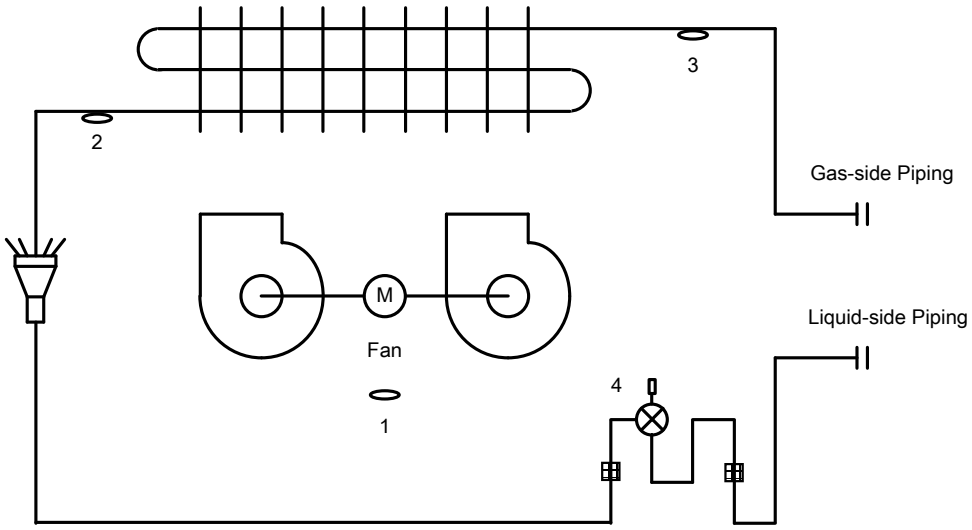


Figure 1 – Piping

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

III. Dimensions

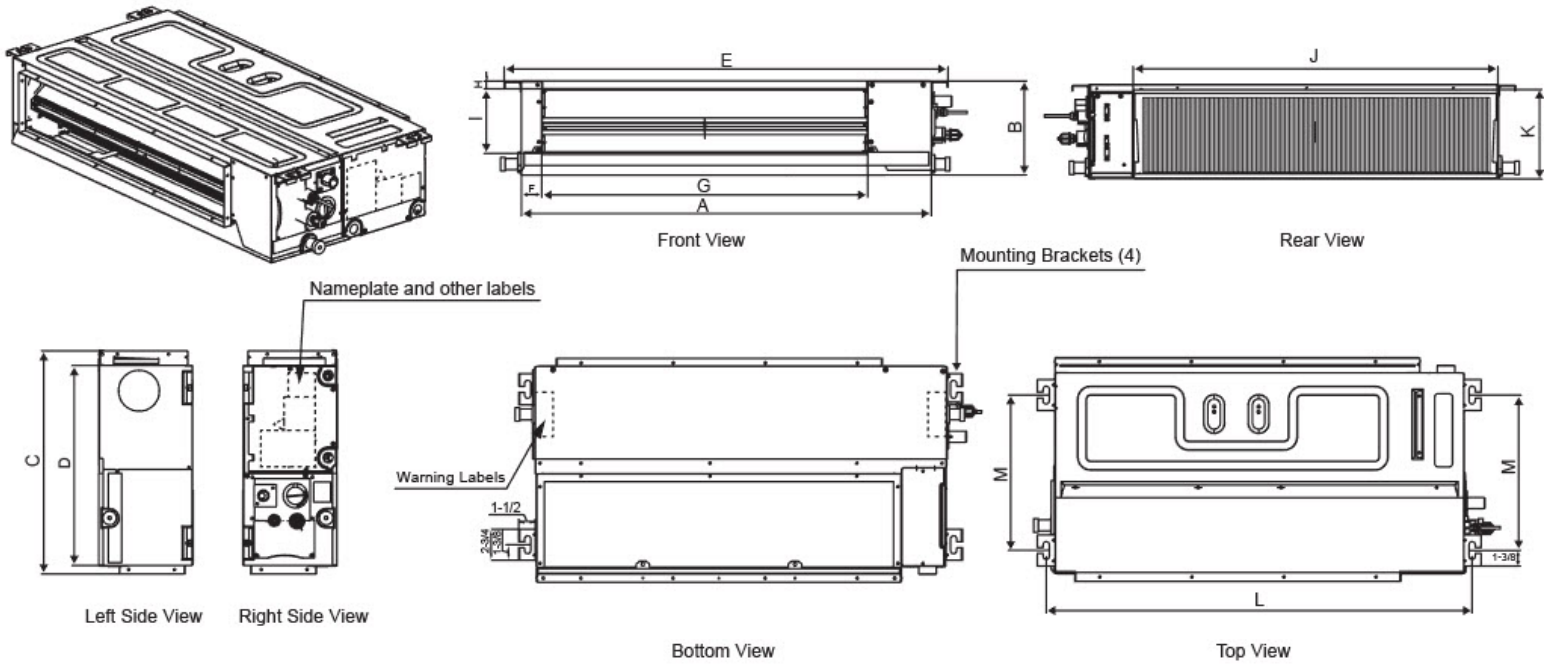


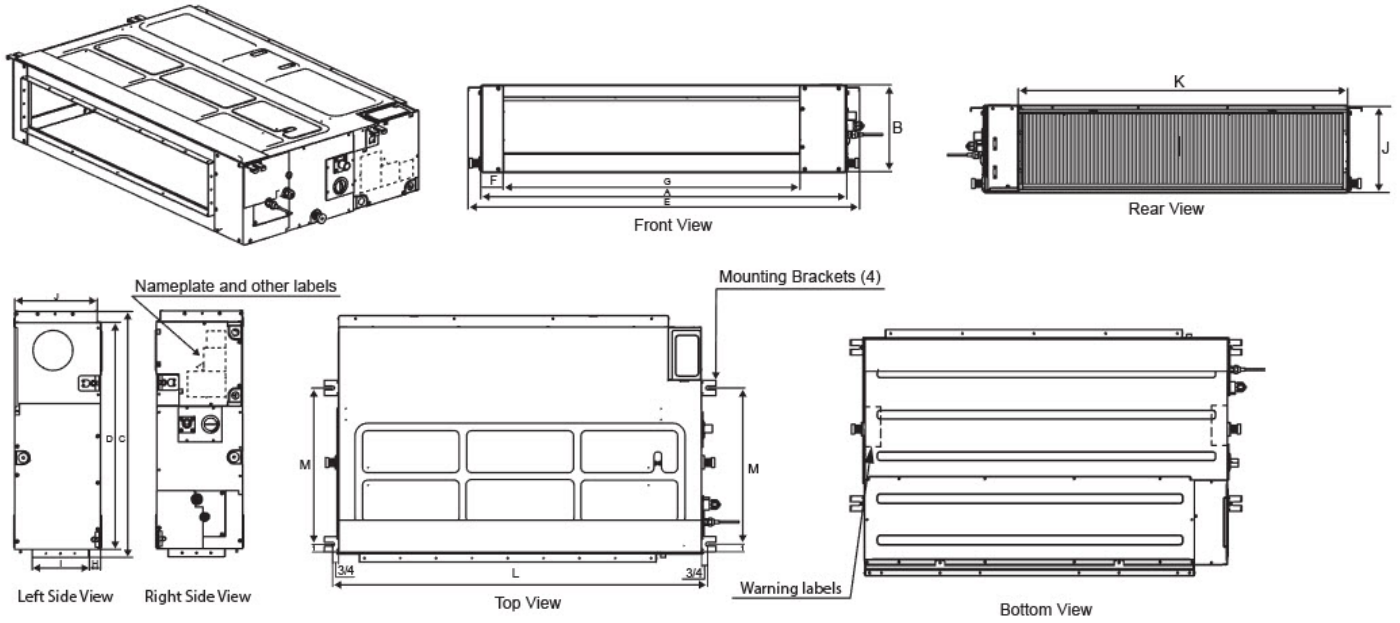
Figure 2 – 40VMM007A/009A--3

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

NOTE: dimensions are in inches

Dimensions (Cont.)



NOTE: dimensions are in inches

Figure 3 – 40VMM012A/015A/018A/024A/030A/036A/048A--3

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

IV. Wiring Diagrams

1. 40VMM007A to 048A--3

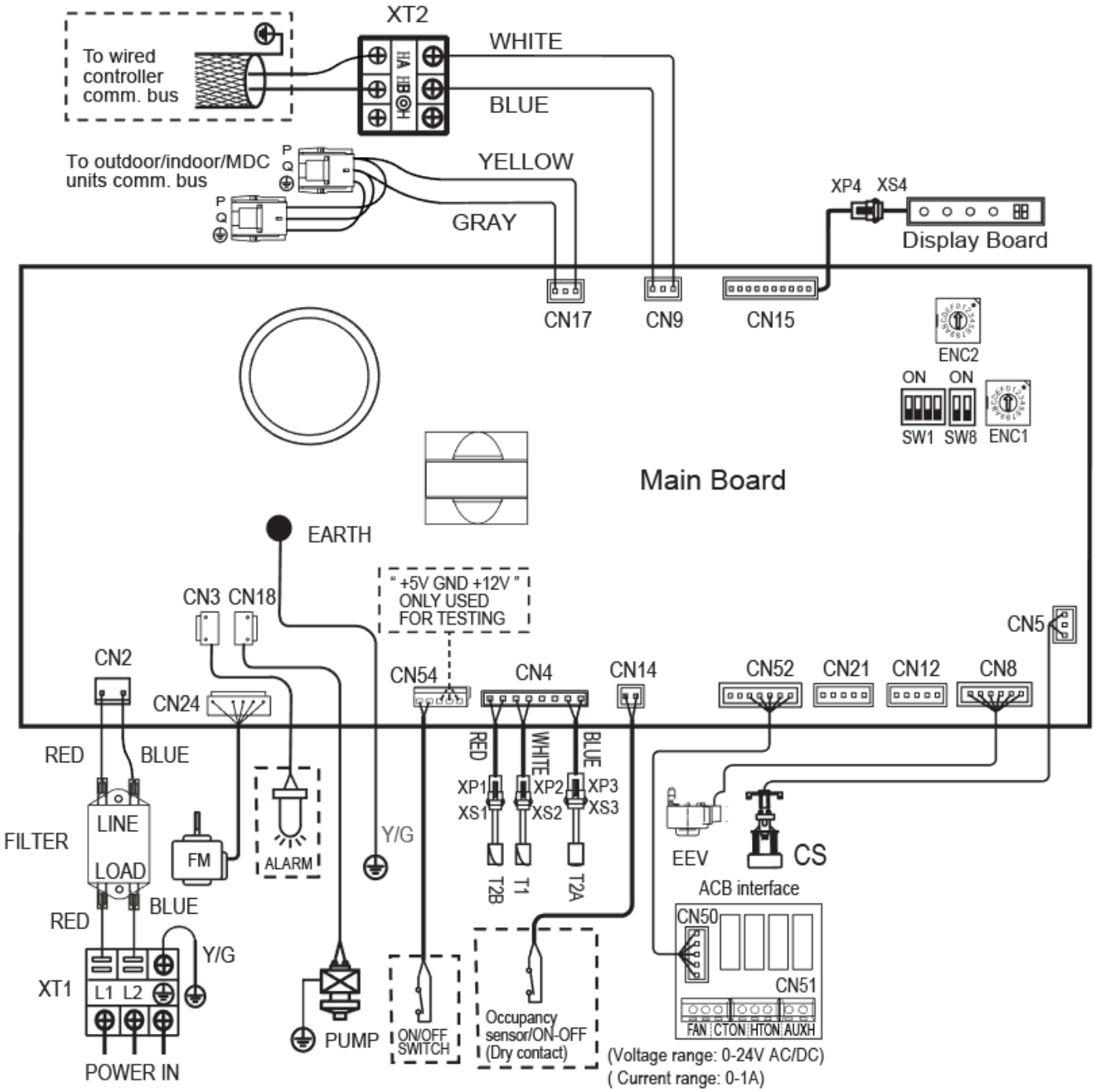


Figure 4 – Wiring Diagram (40VMM007A to 048A--3)

Wiring Diagram Definitions and Settings (40VMM007A to 048A--3)

Code	Title
FM	Indoor Fan Motor
T1	Room Temperature Sensor
T2A	Inlet Pipe Temperature Sensor
T2B	Outlet Pipe Temperature Sensor
ALARM	Warning Lamp
EEV	Electronic Extension Valve
XP1-4	Connectors
XS1-4	
XT1-2	Terminal
PUMP	Pump Motor
CS	Condensate Switch
ACB	Auxiliary Control Board
AXUH	Output for Auxiliary Heat
CTON	Output for Cooling Operation
HTON	Output for Heating Operation

ENC1 Definition

	Reserved

ENC2 Definition

	Reserved

0/1 Definition

	Means 0
	Means 1

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)

J1 Definition

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

SW8 Definition

	(Reserved)
	(Reserved)

Table 11 - Wiring Diagram Error Codes (40VMM007A to 048A--3)

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

V.Electrical Characteristics

Table 12 – 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

VI. Fan Performance

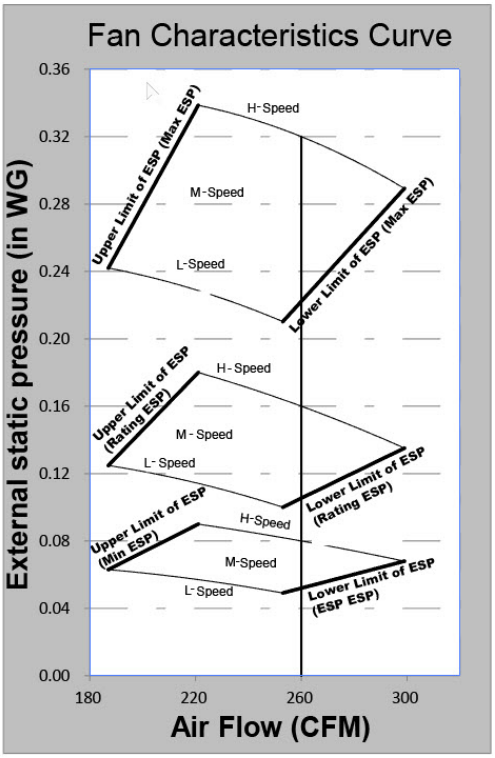


Figure 5 – Fan Performance 007A

Table 13 – 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

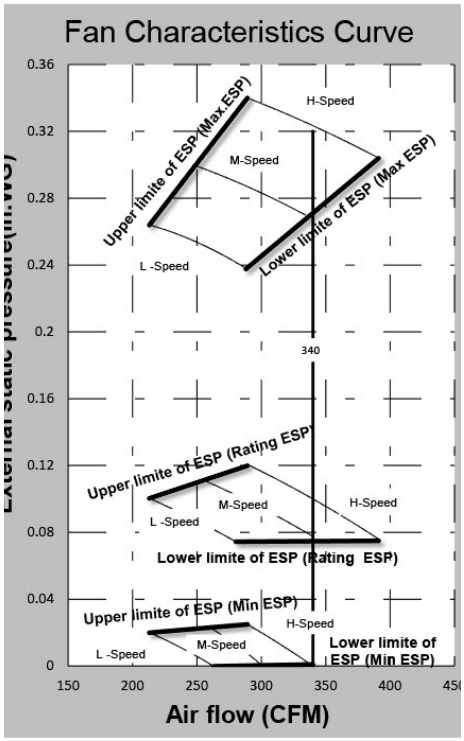


Figure 6 – Fan Performance 009A

Table 14 – 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

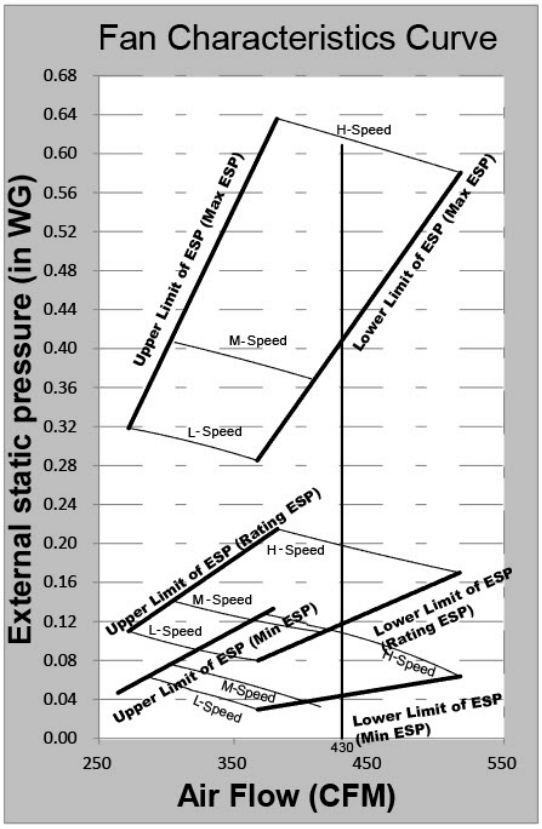


Figure 7 – Fan Performance 012A

Table 15 – 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

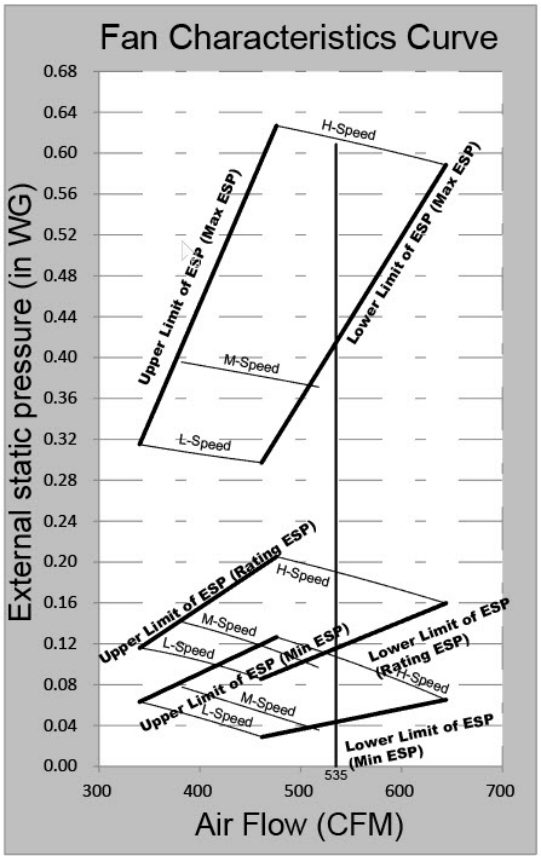


Figure 8 – Fan Performance 015A

Table 16 – 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

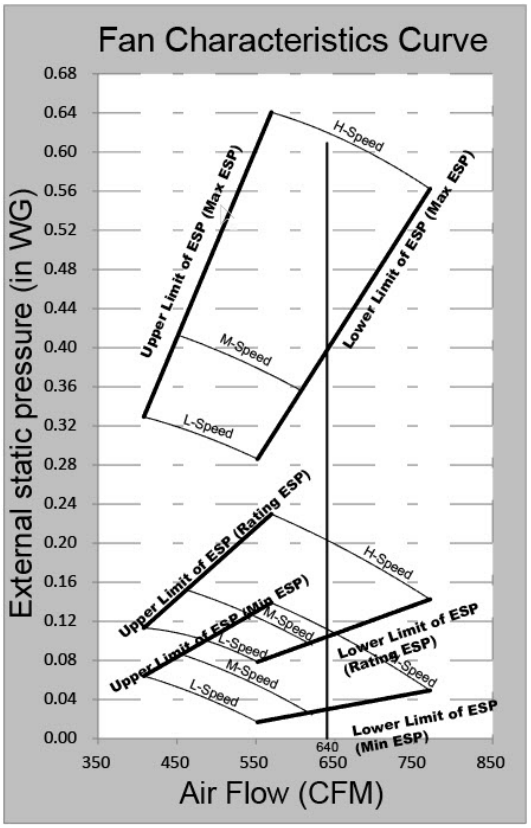


Figure 9 - Fan Performance 018A

Table 17 – 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

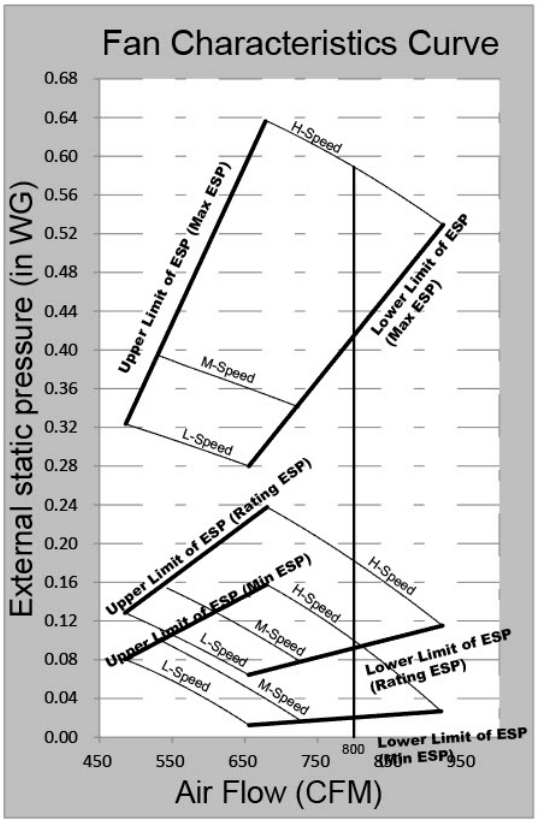


Figure 10 – Fan Performance 024A

Table 18 – 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

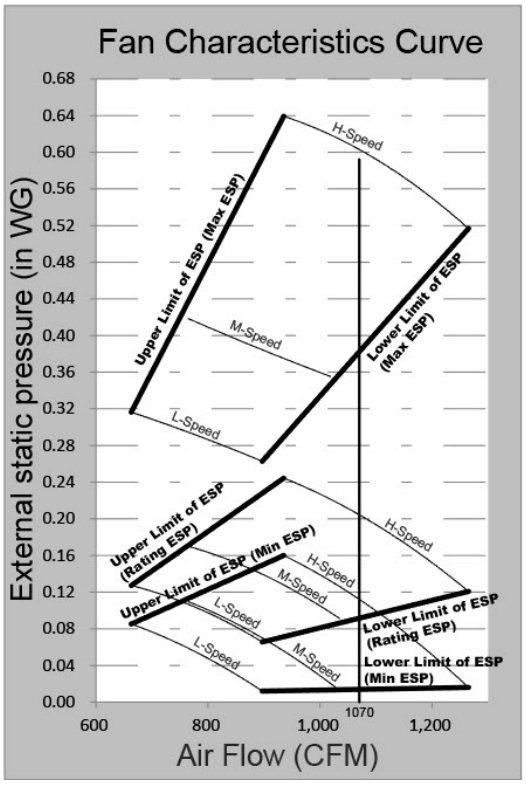


Figure 8 – Fan Performance 030A

Table 19 – 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

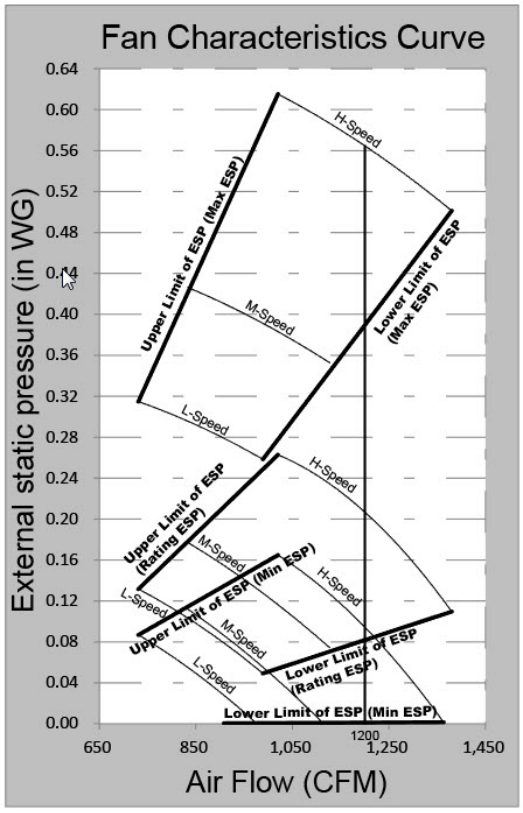


Figure 9 – Fan Performance 036A

Table 20 – 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

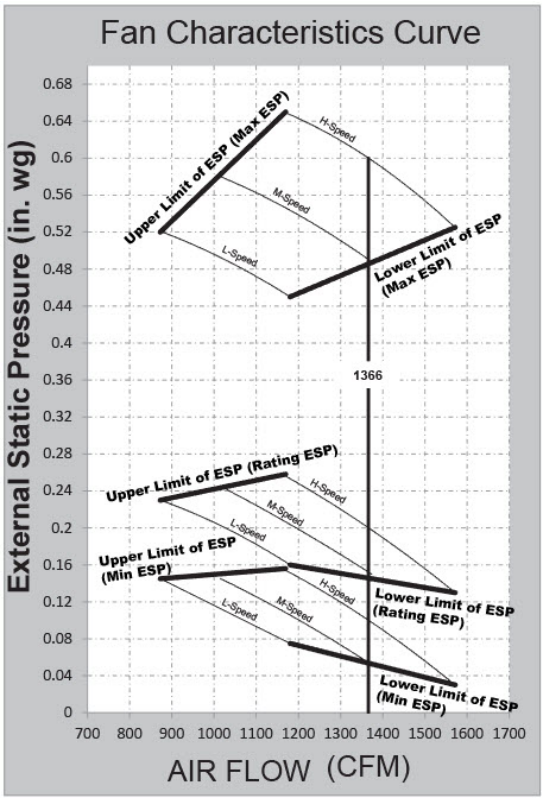


Figure 10 – Fan Performance 048A

Table 21 – 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

NOTES FOR FIG. 6 - 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.

VII. Sound Data

Sound Pressure Levels

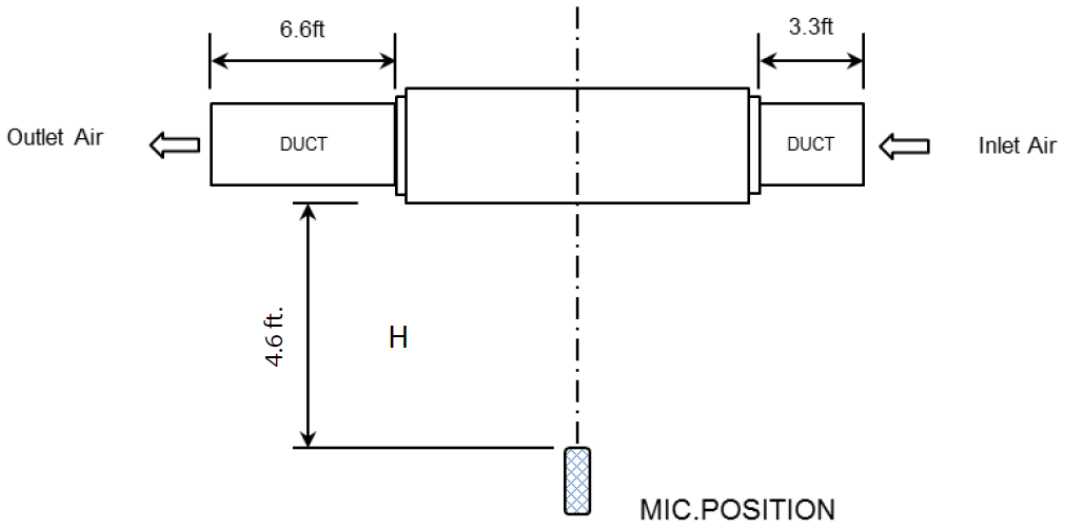


Figure 11 – Overall Sound Levels

Table 22 – Cooling Mode

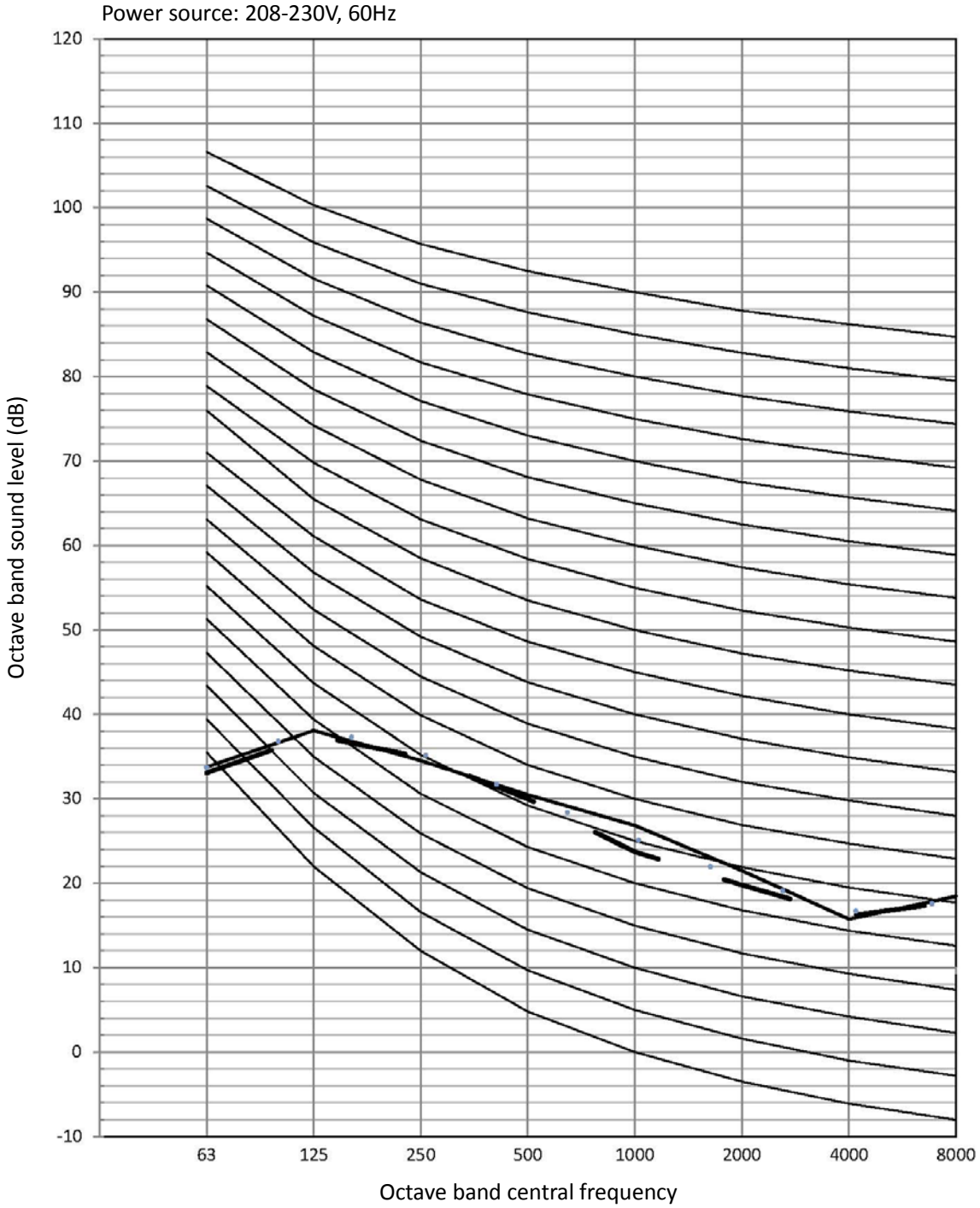
Model	H	M	L
40VMM007A--3	32.1	31.2	31.1
40VMM009A--3	32.6	32.4	31.8
40VMM012A--3	36.8	33.7	32.7
40VMM015A--3	37.0	33.7	32.3
40VMM018A--3	38.0	33.8	32.2
40VMM024A--3	41.1	36.4	34.7
40VMM030A--3	44.7	40.6	37.3
40VMM036A--3	46.1	41.5	38.3
40VMM048A--3	47.2	42.5	40.4

Table 23 – 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 dB(A)

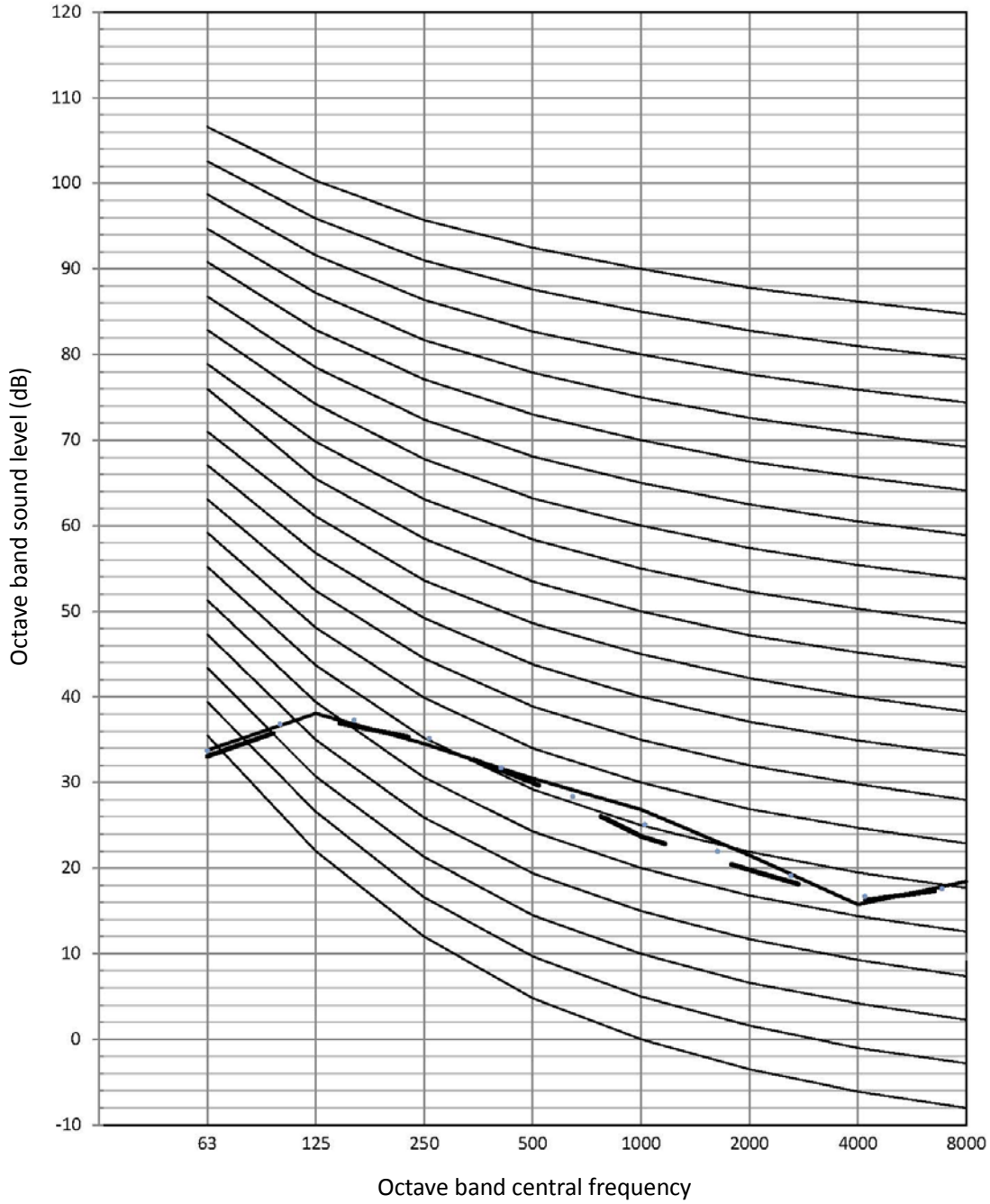
VIII. NC Curves



		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

Figure 12 – 40VMM007A--3 NC Curves

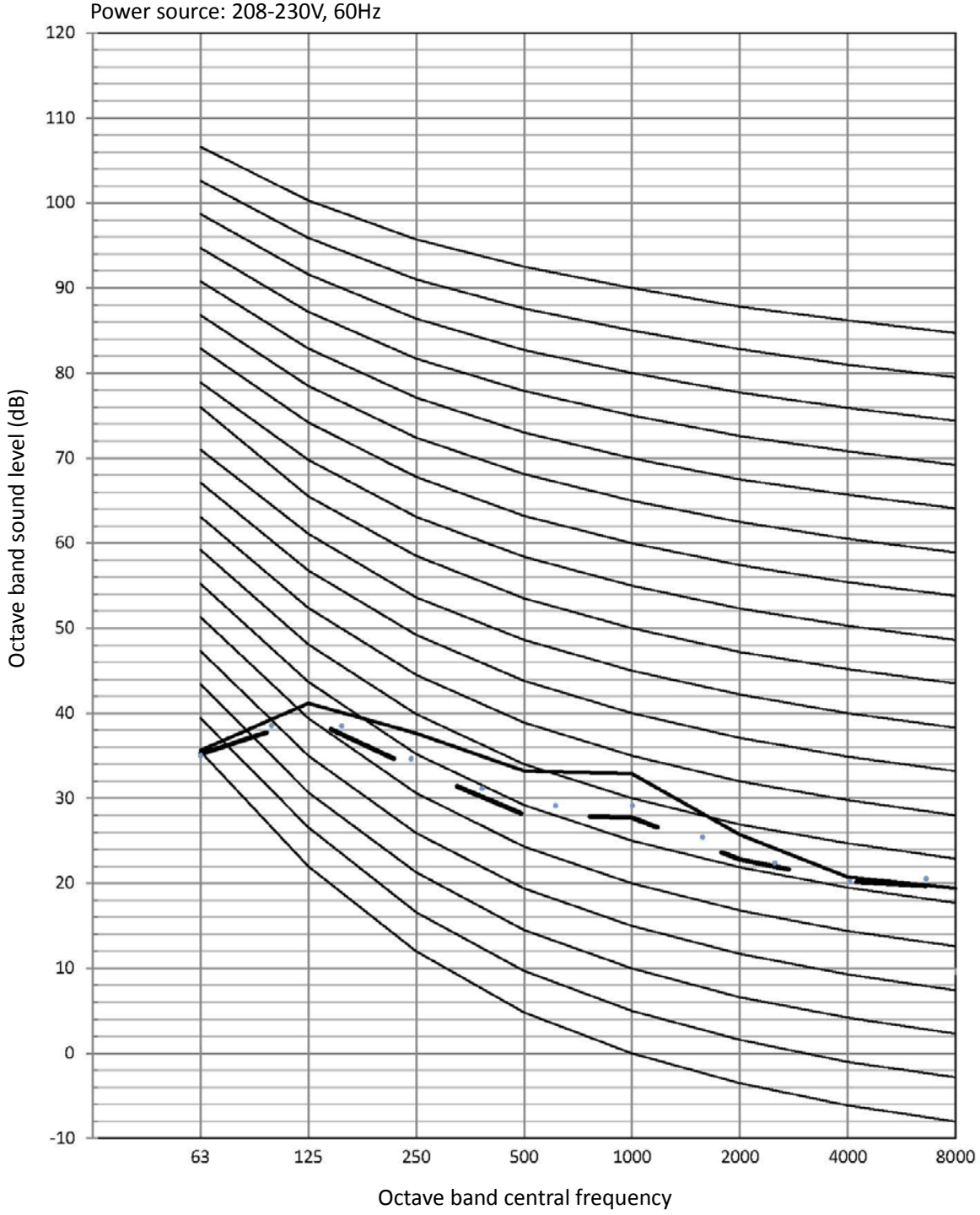
Power source: 208-230V, 60Hz



		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

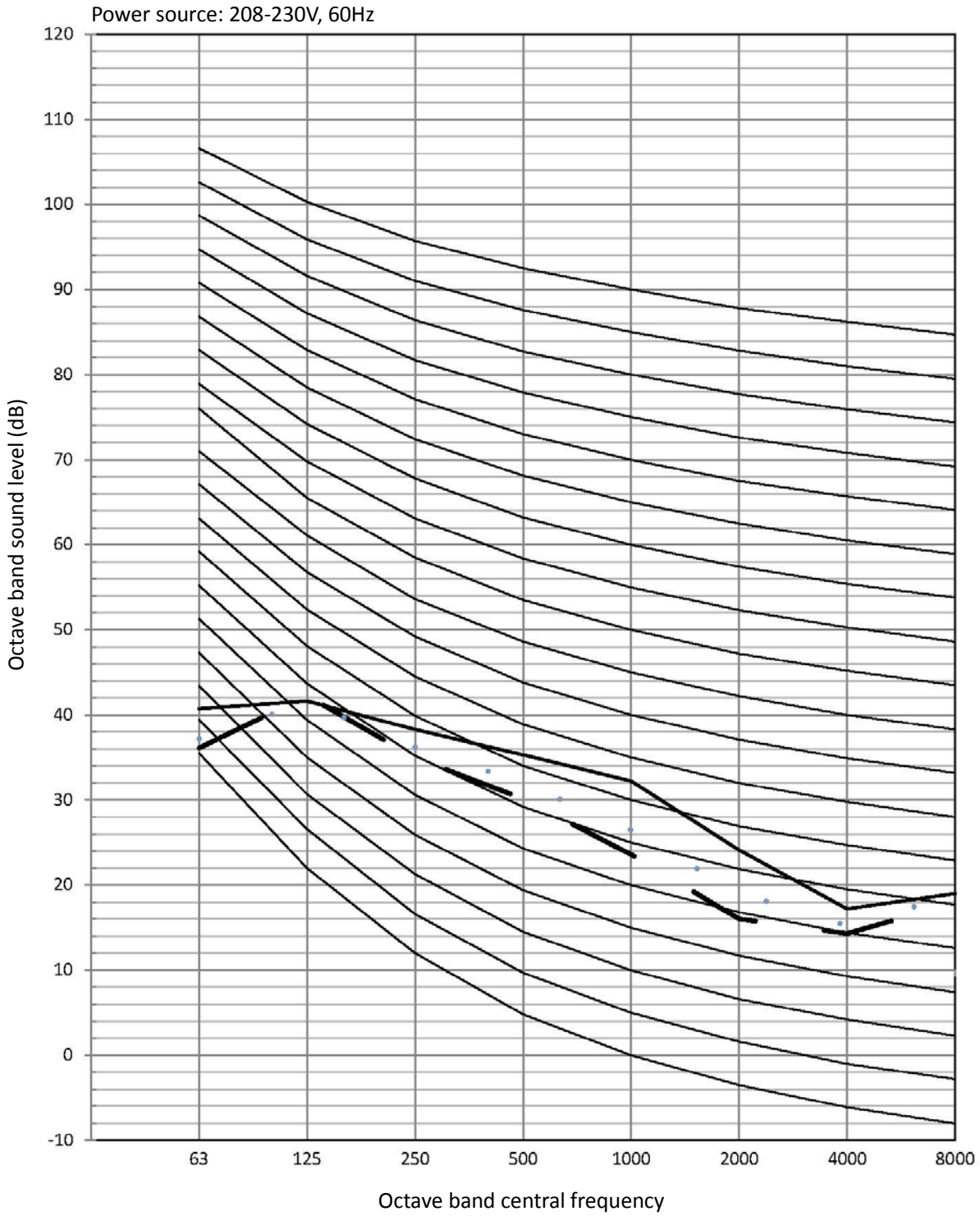
Figure 13 – 40VMM009A--3 NC Curves

Power source: 208-230V, 60Hz



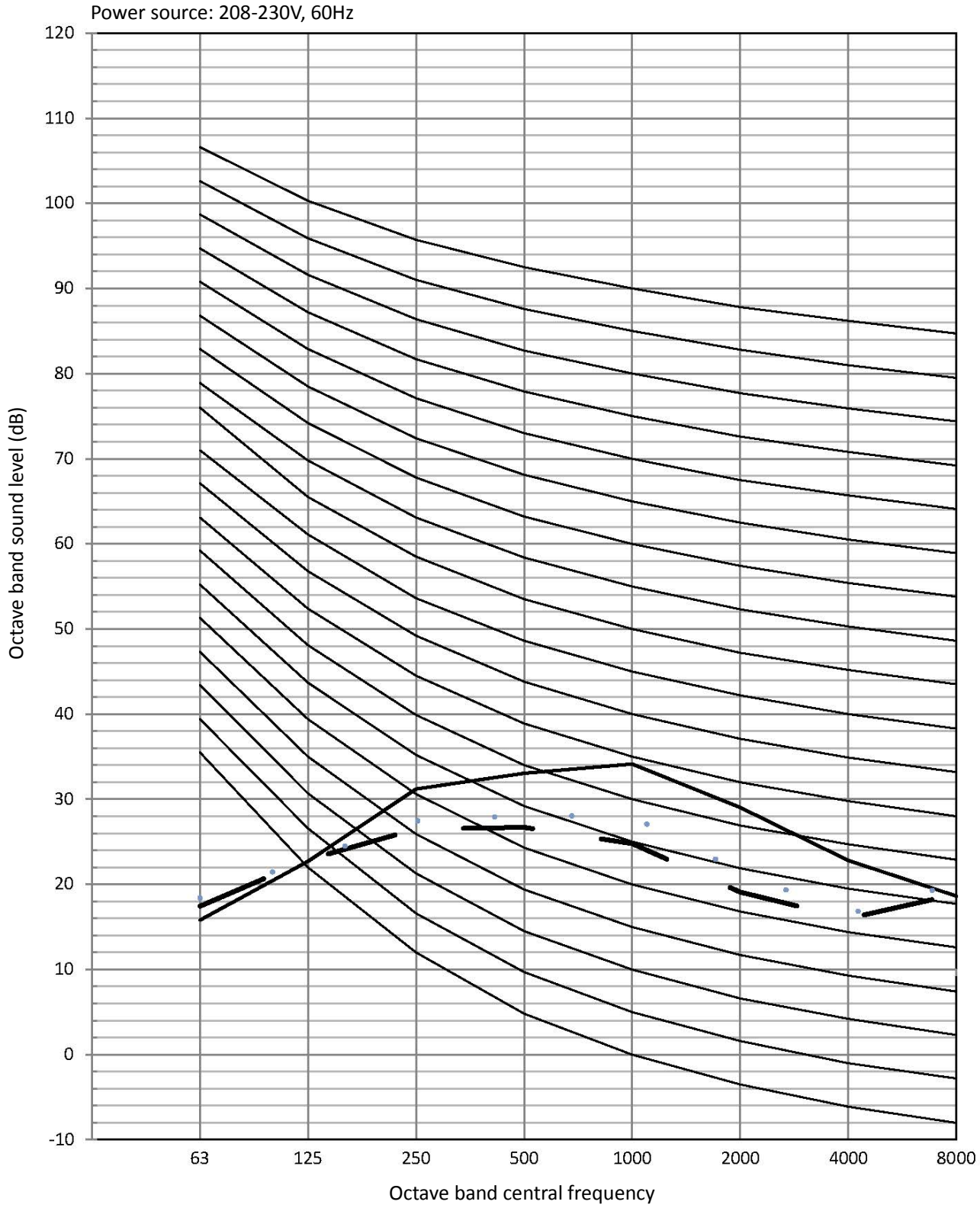
		63	125	250	500	1000	2000	4000	8000
High	60Hz	35.6	41.2	37.6	33.2	32.9	25.7	20.7	19.4
Medium	60Hz	35.0	40.4	34.4	29.1	29.2	23.4	20.2	20.7
Low	60Hz	35.2	39.3	33.4	28.1	27.7	22.8	20.2	19.5

Figure 14 – 40VMM012A--3 NC Curves



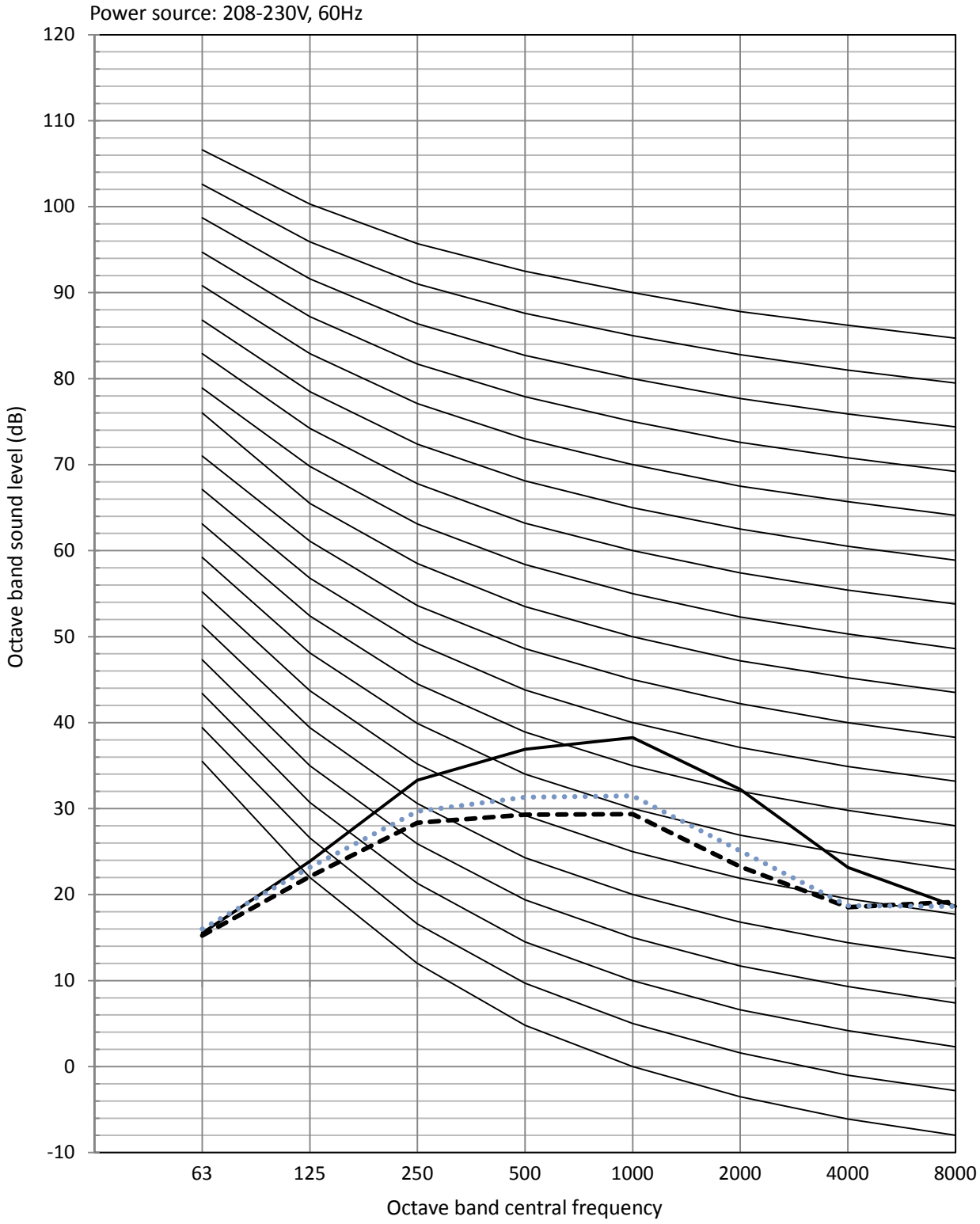
		63	125	250	500	1000	2000	4000	8000
High	60Hz	40.7	41.6	38.3	35.3	32.2	24.1	17.2	19.0
Medium	60Hz	37.2	41.5	36.2	32.0	26.5	19.1	15.3	18.8
Low	60Hz	36.1	42.3	35.0	30.2	23.6	16.0	14.3	17.9

Figure 15 – 40VMM015A--3



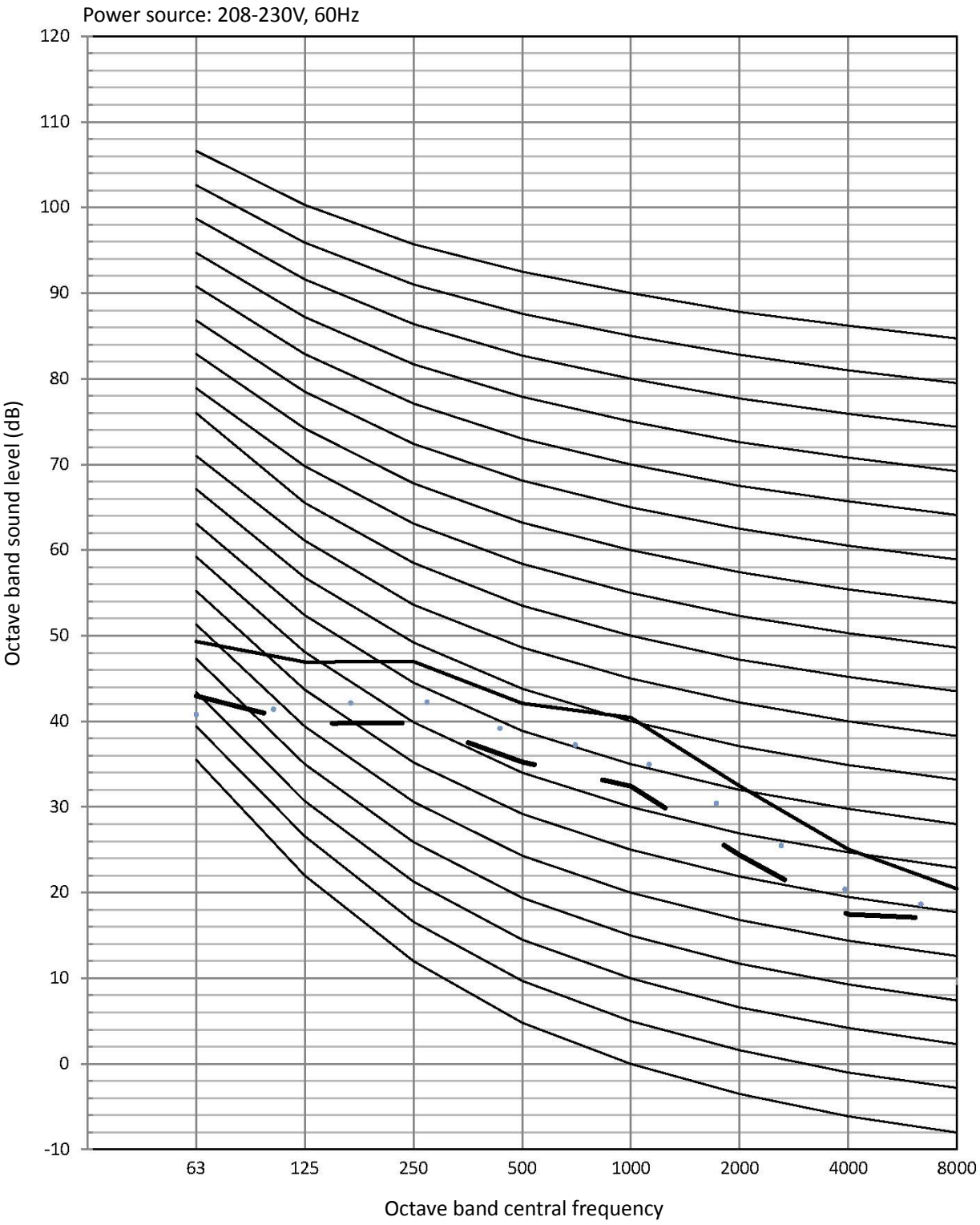
		63	125	250	500	1000	2000	4000	8000
High	60Hz	15.8	22.7	31.2	33.0	34.1	29.0	22.8	18.6
Medium	60Hz	18.4	23.0	27.4	28.1	28.0	21.5	16.5	20.1
Low	60Hz	17.4	22.9	26.5	26.7	24.8	19.1	16.0	18.8

Figure 16 – 40VMM018A--3



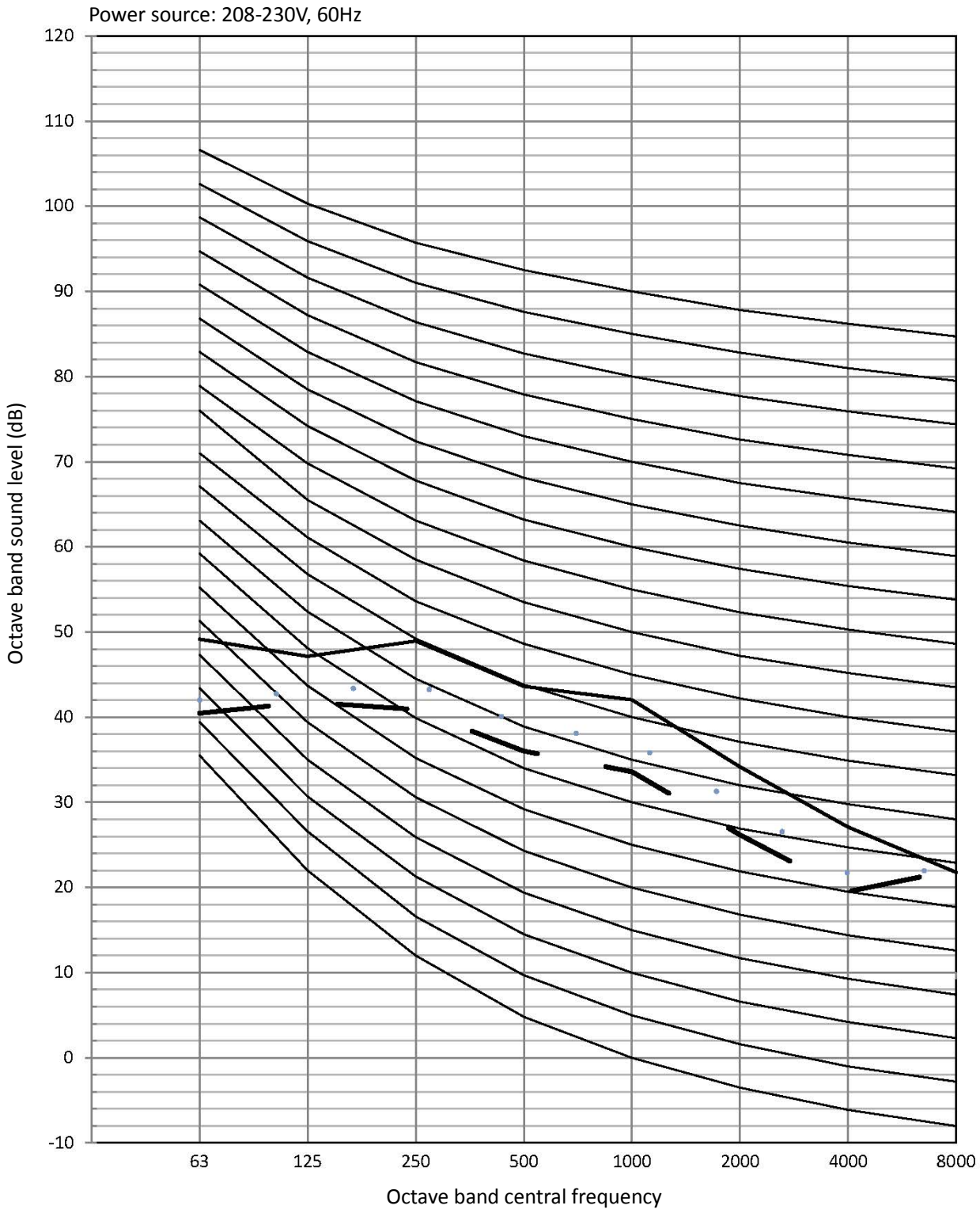
		63	125	250	500	1000	2000	4000	8000
High	60Hz	15.5	23.9	33.3	36.9	38.3	32.2	23.2	18.6
Medium	60Hz	16.0	23.2	29.7	31.3	31.5	25.1	18.7	36.4
Low	60Hz	15.2	22.1	28.4	29.3	29.4	23.2	18.5	34.7

Figure 17 – 40VMM024A--3



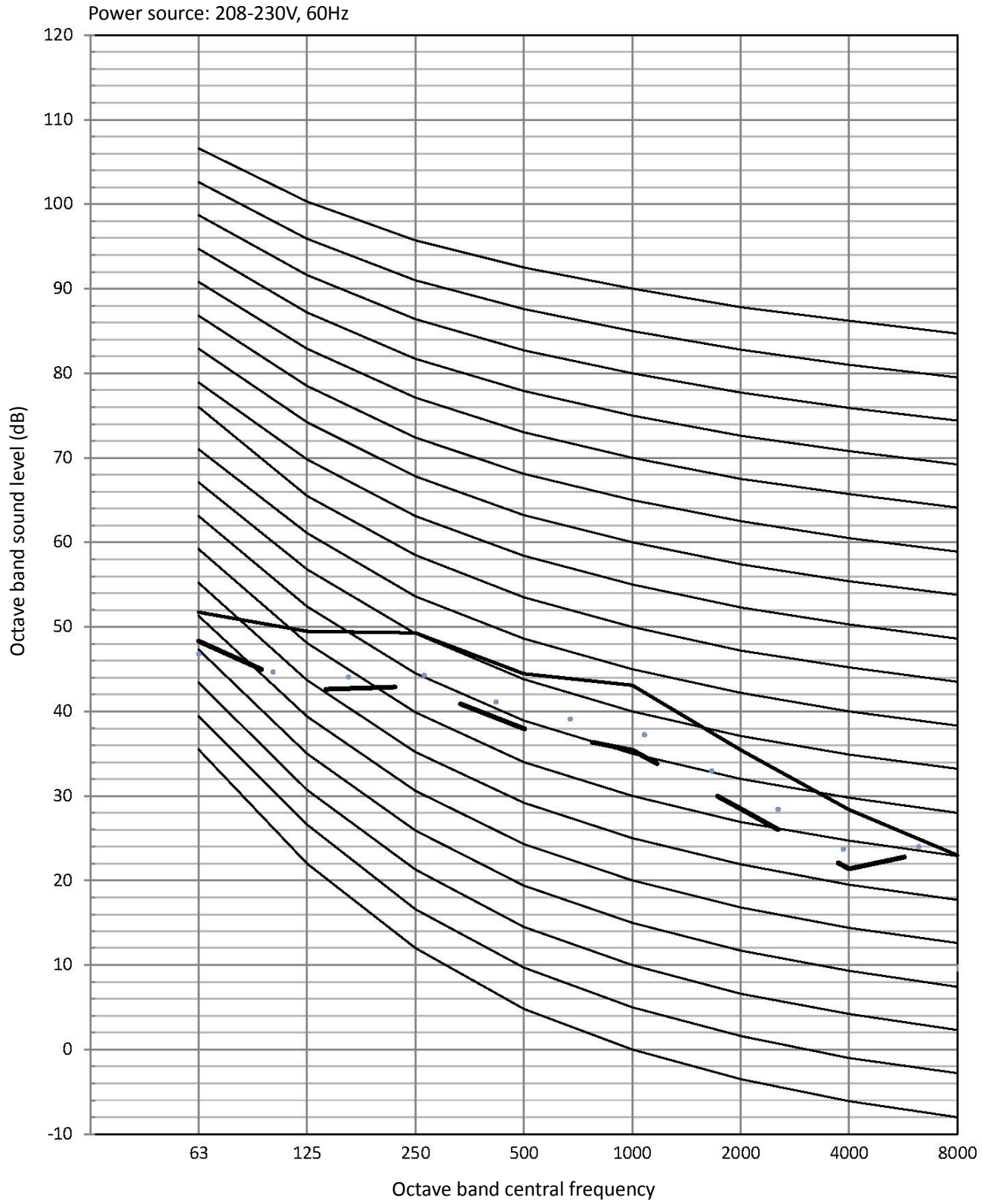
		63	125	250	500	1000	2000	4000	8000
High	60Hz	49.3	46.9	47.0	42.1	40.4	32.5	25.1	20.4
Medium	60Hz	40.8	41.7	42.8	38.2	36.2	28.8	20.2	17.9
Low	60Hz	43.0	39.8	39.8	35.3	32.4	24.4	17.5	16.9

Figure 18 – 40VMM030A--3



		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

Figure 19 – 40VMM036A--3



		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

Figure 20 – 40VMM048A--3

IX. Capacity Data Tables

Table 24 – Cooling Capacity

Model	Capacity Indication	Indoor air temp.											
		68 °FDB/57		71 °FDB/60 °FWB		75 °FDB/63		80 °FDB/67 °FWB		85 °FDB/71 °FWB		90 °FDB/75 °FWB	
		TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
40MM	7A	4.11	4.11	4.98	4.48	5.84	4.97	7.00	5.49	7.46	5.67	7.93	5.83
	9 A	5.28	5.28	6.40	5.79	7.51	6.42	9.00	7.08	9.60	7.31	10.19	7.51
	12A	7.04	7.04	8.53	7.58	10.02	8.43	12.00	9.31	12.79	9.64	13.59	9.92
	15A	8.80	8.80	10.66	9.47	12.52	10.53	15.00	11.63	15.99	12.03	16.98	12.38
	18A	10.56	10.56	12.79	11.40	15.02	12.67	18.00	14.00	19.19	14.48	20.38	14.89
	24A	14.08	13.45	17.06	14.39	20.03	16.01	24.00	17.73	25.59	18.28	27.17	18.76
	30A	17.60	17.60	21.32	18.84	25.04	20.95	30.00	23.14	31.98	23.93	33.97	24.61
	36A	22.30	20.65	27.01	22.16	31.72	24.69	38.00	27.36	40.51	28.18	43.02	28.89
	48A	28.17	24.51	34.12	26.47	40.07	29.57	48.00	32.86	51.17	33.79	54.35	34.57

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

Table 25 – Heating Capacity

Model	Capacity Indication	Indoor air temp.					
		61 °FDB	64 °FDB	67 °FDB	70 °FDB	73 °FDB	75 °FDB
		TC	TC	TC	TC	TC	TC
40MM	7A	8.48	8.32	8.16	8.00	7.46	7.11
	9A	10.60	10.40	10.20	10.00	9.33	8.88
	12A	14.42	14.15	13.87	13.60	12.69	12.08
	15A	18.02	17.68	17.34	17.00	15.86	15.10
	18A	22.27	21.84	21.42	21.00	19.59	18.66
	24A	28.63	28.08	27.54	27.00	25.19	23.99
	30A	36.05	35.37	34.68	34.00	31.72	30.21
	36A	44.53	43.69	42.84	42.00	39.19	37.31
	48A	57.25	56.17	55.08	54.00	50.38	47.97

Rated Condition: Condensation temperature is 114.8°F.

TC = Total capacity; KBTU/h

SC = Sensible capacity; KBTU/h

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