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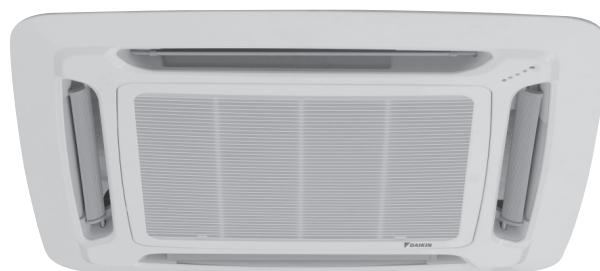
TECHNICAL MANUAL

Chilled Water Fan Coil Units

FWMT, FWMJC(C), FWKE, FWPMM, UAHMM Series



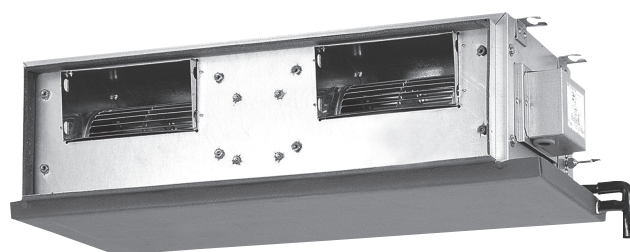
FWMT



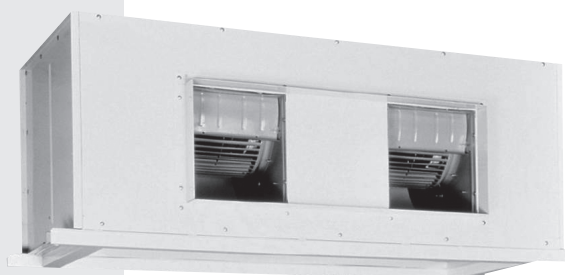
FWMJC/FWKE



FWMJCC



FWPMM



UAHMM

TM-FCU-W-SG-A3

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Nomenclature

FWMT 02 C V 1

Product Type

FWMT : Wall Mounted Type
FWMJC(C) : Ceiling Cassette Type
FWKE : Ceiling Cassette Type
(DC Motor)
FWPMM : Ceiling Concealed Type
UAHMM : Ducted Type

Size

02 : 2 kW
03 : 3 kW

Revision

1 : First Revision
2 : Second Revision

Power Supply

V : 220~240V/1Ph/50Hz
Y : 380~415V/3Ph/50Hz

Product Series

A : A Series
B : B Series
C : C Series
E : E Series

Product Line-Up

Chilled Water Fan Coil Units

Model	Classification																			
	PCB					Handset		Control			Connection				Air Discharge			Filter		
	50WJWXX*	UCW_W2.0*	W3*	W3DC*	Without Controller	BRC52A	BRC51A	Auto Air Swing	Turbo	Quiet	1/2" BSP (Female) Brass Adaptor	3/4" BSP (Female) Brass Union	1 1/8" Brazing (OD28.6mm)	Left Piping	Right Piping	Horizontal Flow	Vertical Flow	Convertible	Saranet Filter	AAF R29
FWMT02CV1	X					X	X	X	X	X	X			X					X	
FWMT03CV1	X					X	X	X	X	X	X			X					X	
FWMT04CV1	X					X	X	X	X	X	X			X					X	
FWMT05CV1	X					X	X	X	X	X	X			X					X	
FWMT06CV1	X					X	X	X	X	X	X			X					X	
FWMJC6BV1			X			X	X	X		X		X							X	
FWMJC8BV1			X			X	X	X		X		X							X	
FWMJC9BV1			X			X	X	X		X		X							X	
FWMJC11BV1			X			X	X	X		X		X							X	
FWMJC13BV1			X			X	X	X		X		X							X	
FWMJCC2BV1		X				X	X	X				X							X	
FWMJCC4BV1		X				X	X	X				X							X	
FWMJCC5BV1		X				X	X	X				X							X	
FWKE05E				X		X	X	X	X	X		X							X	
FWKE08E				X		X	X	X	X	X		X							X	
FWKE11E				X		X	X	X	X	X		X							X	
FWPMM3AV1		X				X	X					X		X		X				
FWPMM3AZV1		X				X	X					X			X	X				
FWPMM3AV1-N					X							X		X		X				
FWPMM3AZV1-N					X							X			X	X				
FWPMM4AV1		X				X	X					X		X		X				
FWPMM4AZV1		X				X	X					X			X	X				
FWPMM4AV1-N					X							X		X		X				
FWPMM4AZV1-N					X							X			X	X				
FWPMM6AV1		X				X	X					X		X		X				
FWPMM6AZV1		X				X	X					X			X	X				
FWPMM6AV1-N					X							X		X		X				
FWPMM6AZV1-N					X							X			X	X				
FWPMM7AV1		X				X	X					X		X		X				
FWPMM7AZV1		X				X	X					X			X	X				

Model	Classification																			
	PCB					Handset		Control			Connection				Air Discharge			Filter		
	50WJWXX*	UCW_W2.0*	W3*	W3DC*	Without Controller	BRC52A	BRC51A	Auto Air Swing	Turbo	Quiet	1/2" BSP (Female) Brass Adaptor	3/4" BSP (Female) Brass Union	1 1/8" Brazing (OD28.6mm)	Left Piping	Right Piping	Horizontal Flow	Vertical Flow	Convertible	Saranet Filter	AAF R29
FWPMM7AV1-N					X							X		X		X				
FWPMM7AZV1-N					X							X			X	X				
FWPMM9AV1		X					X					X		X		X				
FWPMM9AZV1		X					X					X			X	X				
FWPMM9AV1-N					X							X		X		X				
FWPMM9AZV1-N					X							X			X	X				
FWPMM11AV1		X					X					X		X		X				
FWPMM11AZV1		X					X					X			X	X				
FWPMM11AV1-N					X							X		X		X				
FWPMM11AZV1-N					X							X			X	X				
FWPMM12AV1		X					X					X		X		X				
FWPMM12AZV1		X					X					X			X	X				
FWPMM12AV1-N					X							X		X		X				
FWPMM12AZV1-N					X							X			X	X				
FWPMM14AV1		X					X					X		X		X				
FWPMM14AZV1		X					X					X			X	X				
FWPMM14AV1-N					X							X		X		X				
FWPMM14AZV1-N					X							X			X	X				
FWPMM16AV1		X					X					X		X		X				
FWPMM16AZV1		X					X					X			X	X				
FWPMM16AV1-N					X							X		X		X				
FWPMM16AZV1-N					X							X			X	X				
UAHMM20AV1					X								X	X		X				
UAHMM20AZV1					X								X		X	X				
UAHMM25AV1					X								X	X		X				
UAHMM25AZV1					X								X		X	X				
UAHMM30AY1					X								X	X		X		X		X
UAHMM30AZY1					X								X		X	X		X		X
UAHMM40AY1					X								X	X		X		X		X
UAHMM40AZY1					X								X		X	X		X		X

* PCB naming

Application Information

Model: FWMT

Operating Limits:

Thermal carrier : Water

Water temperature : 4°C ~ 10°C (Cooling), 35°C ~ 50°C (Heating)

Maximum water pressure : 16 bar

Air temperature : (as below)

Cooling Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	19.0 / 66.2	14.0 / 57.2
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4

Heating Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	15.0 / 59.0	-
Maximum indoor temperature	27.0 / 80.6	-

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

Model: FWMJCC

Operating Limits:

Thermal carrier : Water

Water temperature : 4°C ~ 10°C (Cooling), 35°C ~ 50°C (2 Pipes) (Heating)

Maximum water pressure : 16 bar

Air temperature : (as below)

Cooling Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	19.0 / 66.2	14.0 / 57.2
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4

Heating Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	15.0 / 59.0	-
Maximum indoor temperature	27.0 / 80.6	-

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

Model: FWMJC & FWKE

Operating Limits:

Thermal carrier : Water

Water temperature : 4°C ~ 10°C (Cooling), 35°C ~ 50°C (2 Pipes) (Heating), 35°C ~ 70°C (4 Pipes) (Heating)

Maximum water pressure : 16 bar

Air temperature : (as below)

Cooling Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	16.0 / 60.8	11.0 / 51.8
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4

Heating Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	16.0 / 60.8	-
Maximum indoor temperature	30.0 / 86.0	-

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

Model: FWPM

Operating Limits:

Thermal carrier : Water

Water temperature : 4 ~ 10°C (Cooling), 35°C ~ 50°C (Heating)

Maximum water pressure : 16 bar

Air temperature : (as below)

Cooling Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	19.0 / 66.2	14.0 / 57.2
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4

Heating Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	15.0 / 59.0	-
Maximum indoor temperature	27.0 / 80.6	-

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

Model: UAHMM**Operating Limits:**

Thermal carrier : Water

Water temperature : 4°C ~ 10°C (Cooling), 35°C ~ 70°C (Heating)

Maximum water pressure : 16 bar

Air temperature : (as below)

Cooling Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	19.0 / 66.2	14.0 / 57.2
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4

Heating Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	15.0 / 59.0	-
Maximum indoor temperature	27.0 / 80.6	-

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

Installation Guide

System Configuration

The standard controller board comes with a VALVE jumper and a HEAT jumper. The system can be configured as the jumper selection listed below:

	HEAT Jumper	VALVE Jumper
Heatpump Mode & Valve Application	√	√
Heatpump Mode & Valveless Application	√	X
Cooling Mode & Valve Application	X	√
Cooling Mode & Valveless Application	X	X

√ Jumper Remained X Jumper Removed

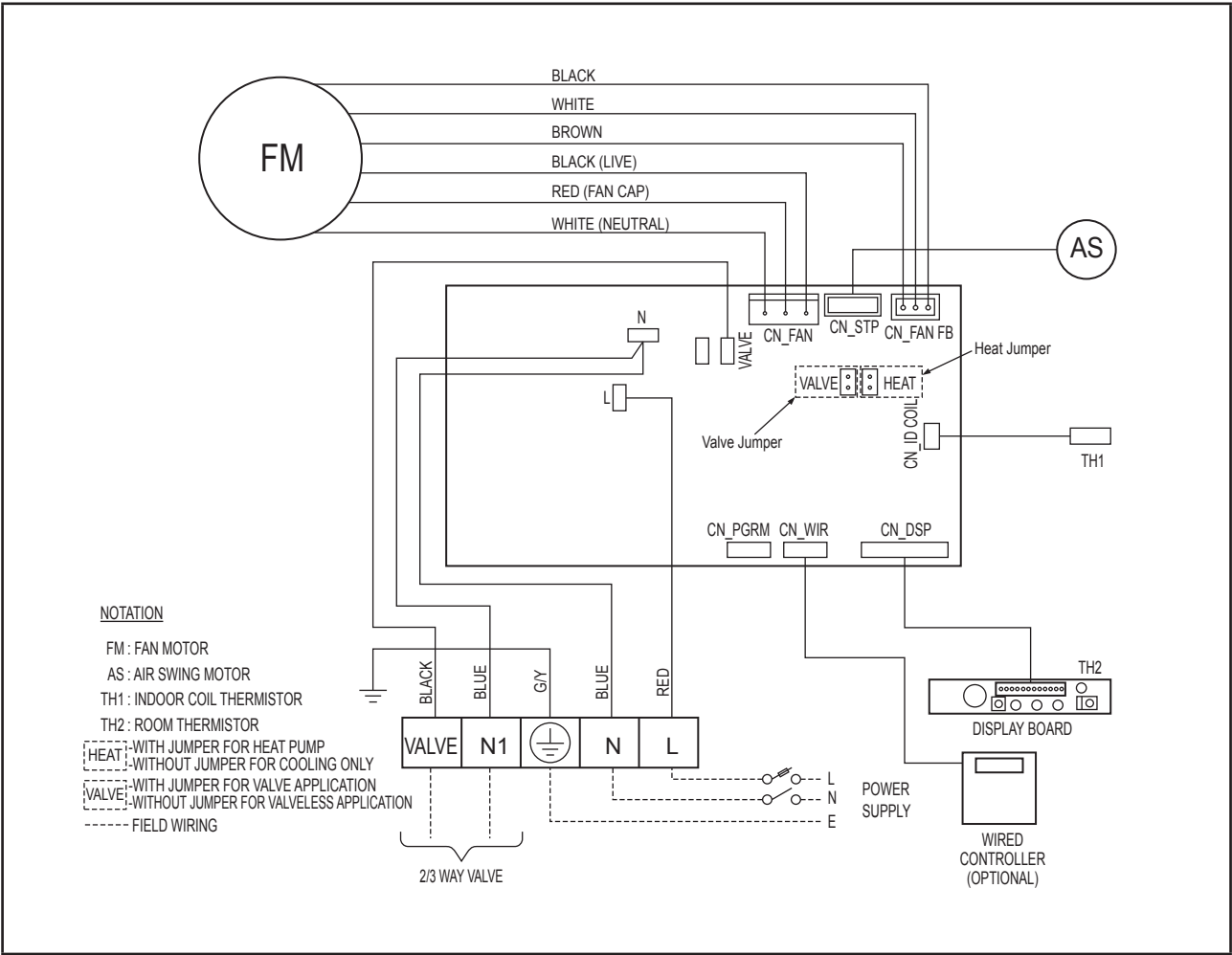


Caution

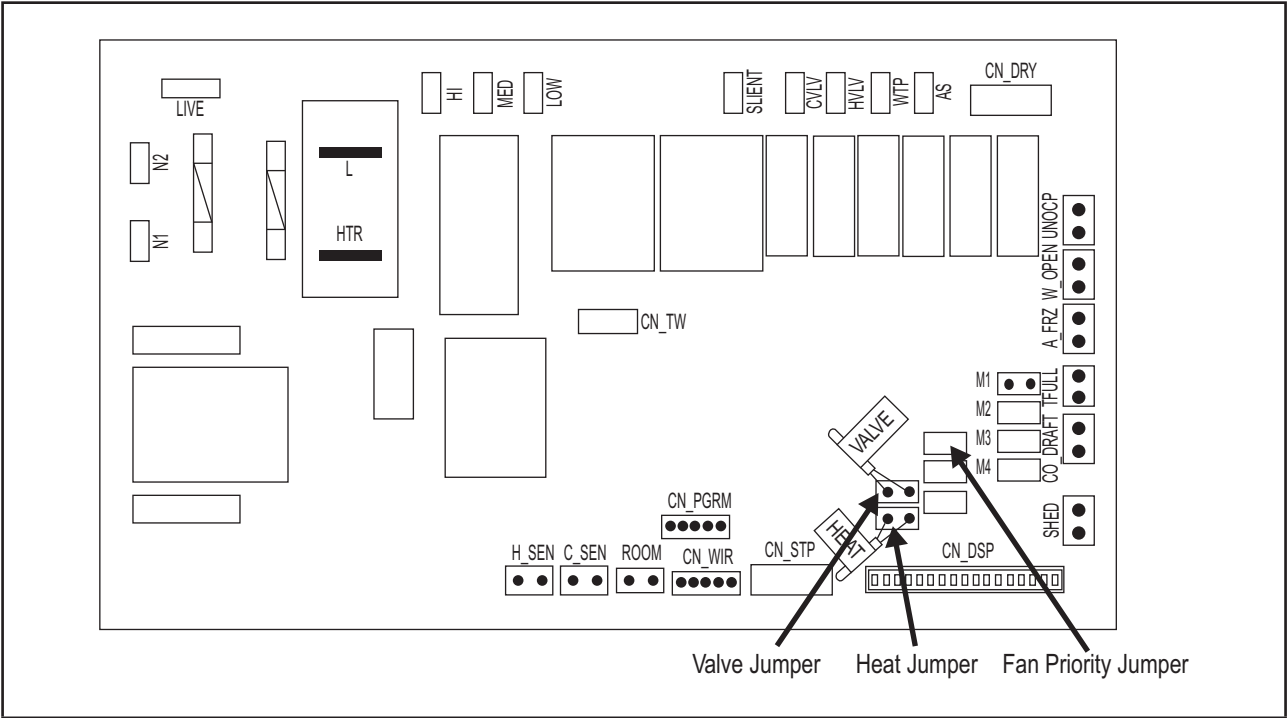
Disconnect the power supply to the unit before attempting to connect the wiring

Valve, Heat and Fan Priority Setting

Model: FWMT-C



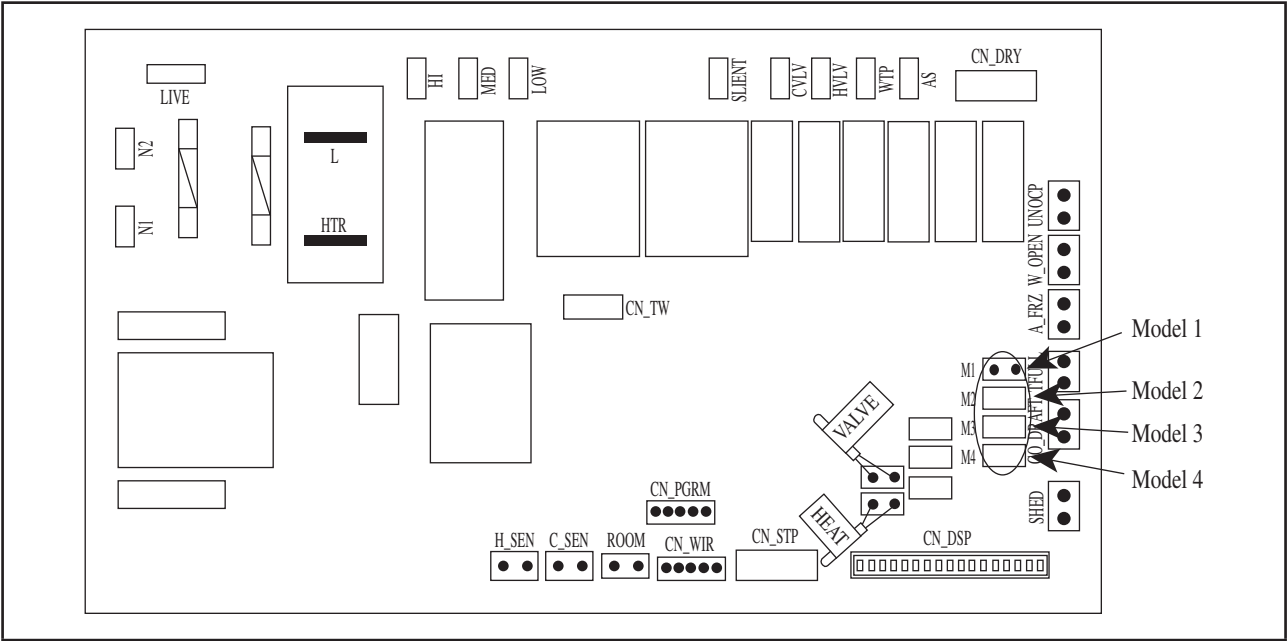
Model: FWMJC(C)/FWKE/FWPMM



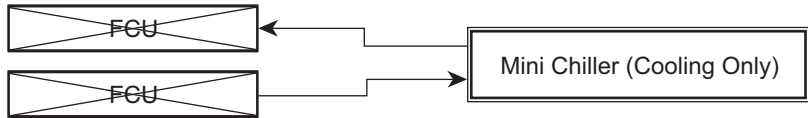
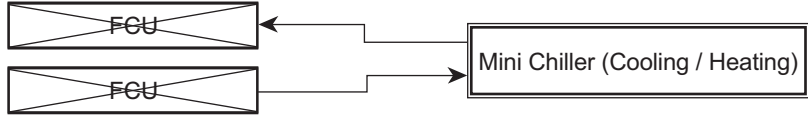
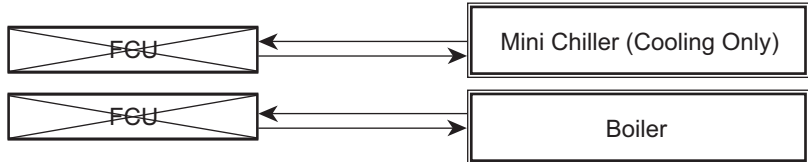
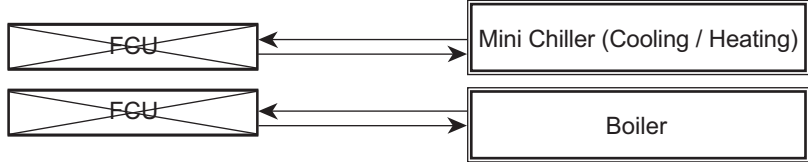
Jumper	With Jumper (Default)	Without Jumper
Fan Priority Jumper	User set speed or lower fan if auto mode is selected	Fan Stop when thermostat cat off
Heat Jumper	For Heat pump	For Cooling only
Valve Jumper	For valve control	For valveless control

FWMJC-B 4 pipes system controller board setting

Model selection

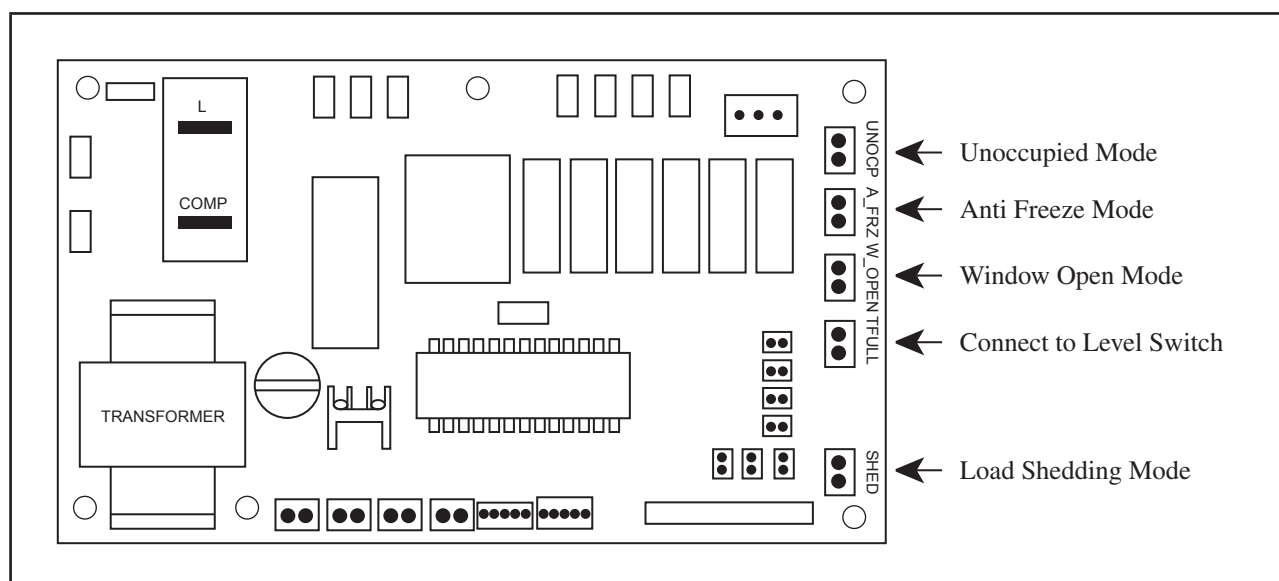


The standard controller board (W3.0) comes with a default setting for model selection. Please select the model accordingly by using jumper.

System	Model	Function
2 Pipe System	M1 - Model 1	Cooling or Heating 
	M2 - Model 2	Cooling or Heating with Auxiliary Heater 
4 Pipe System	M3 - Model 3	Cooling Only with Boiler 
	M4 - Model 4	Cooling or Heating with Boiler 

Others

The controller board comes with other option.



i) Unoccupied Mode

If the dry contact is closed, the Unoccupied mode is activated and vice versa. When Timer On is active, system goes back to Occupied mode.

The dry contact connection points can be connected parallel with other fan coil unit (FCU) boards. If the dry contact is closed, Unoccupied mode will be activated on all fan coil units that are connected parallel as shown in figure below.

ii) Anti Freeze Mode

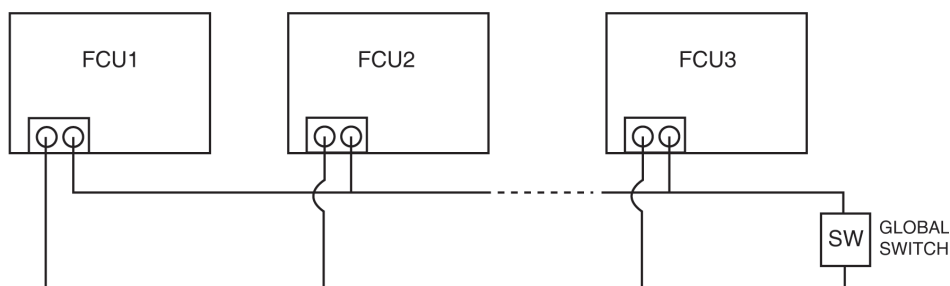
Anti Freeze operation has the highest priority among all unit operation. Anti Freeze operation will be activated only if dry contact is closed and vice versa.

iii) Window Open Mode

The dry contact connection points can be connected in parallel with other fan coil unit (FCU) boards. If the dry contact is closed, Window open mode will be activated on all the fan coil units which are connected in parallel as shown in figure below.

iv) Load Shedding

The dry contact connection points can be connected in parallel with other fan coil unit (FCU) boards. If the dry contact is closed, Load shedding mode will be activated on all the fan coil units which are connected in parallel as shown in figure below.



Global Unoccupied, Global Window Open and Global Load Shedding operation could also be activated via the network communication bus line by master controller with or without the above connection.

NOTE :

- i) Auto Fan Mode is only applicable in Model 3 only. (Cooling only with Boiler)
- ii) Fan mode is not available in valveless control.
- iii) Wired handset has an indoor room sensor. Avoid locating the wired handset at isolated places where room temperature reading will be inaccurate.

Cable Size

Model	Unit	FWMT-C / FWMJC-B / FWMJCC-B / FWKE-E	FWPMM3A
Power supply cable size*	mm ²	1.5	1.5
Number of wire		3	3
Recommended fuse*	A	2	1

Model	Unit	FWPMM4A	FWPMM6/7A	FWPMM8A
Power supply cable size*	mm ²	1.5	1.5	1.5
Number of wire		3	3	3
Recommended fuse*	A	2	4	6

Model	Unit	FWPMM9A	FWPMM11/12/14A	FWPMM16A
Power supply cable size*	mm ²	1.5	1.5	1.5
Number of wire		3	3	4
Recommended fuse*	A	8	10	12

Model	Unit	UAHMM20/25A	UAHMM30/40A
Power supply cable size*	mm ²	1.5	1.5
Number of wire		3	4
Recommended fuse*	A	5	5

Important: * These values are for information only. They should be checked and selected to comply local or national codes and regulations. They are also subjected to the type of installation and size of conductors.

Sound Data

Sound Pressure Level

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FWMT02C	High	31	32	33	28	26	14	6	34	28
	Med	25	29	28	24	19	9	5	29	22
	Low	20	26	24	20	11	8	6	25	18
FWMT03C	High	30	33	33	32	28	17	8	35	31
	Med	26	29	30	27	21	11	7	30	25
	Low	19	25	25	21	14	6	6	25	19
FWMT04C	High	41	39	39	38	36	26	14	42	38
	Med	38	36	37	34	32	22	10	39	33
	Low	30	30	31	28	23	12	7	32	26
FWMT05C	High	37	38	38	39	33	22	11	42	38
	Med	33	35	35	35	29	17	8	38	34
	Low	29	33	32	31	23	12	7	34	30
FWMT06C	High	42	42	42	42	40	31	21	46	42
	Med	37	38	39	38	34	24	13	42	37
	Low	34	35	36	35	30	20	9	39	34

Microphone position: 1m in front and 0.8m below the vertical centre line of the unit.

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FWMJC6B	High	44	43	42	35	29	23	15	42	37
	Med	40	40	38	30	23	16	14	38	33
	Low	35	34	32	23	15	10	14	32	26
FWMJC8B	High	48	47	45	39	34	28	17	46	40
	Med	44	42	42	34	28	21	10	42	37
	Low	39	37	36	26	19	10	6	35	31
*FWMJC9B	High	49	48	46	42	37	35	22	48	41
	Med	44	44	42	36	32	27	14	43	37
	Low	41	39	37	31	26	17	8	38	32
*FWMJC11B	High	51	49	49	45	37	36	24	50	45
	Med	48	46	47	40	33	31	18	47	43
	Low	44	42	43	35	28	23	10	43	38
*FWMJC13B	High	53	54	50	47	39	38	28	52	46
	Med	49	48	47	43	36	35	25	49	43
	Low	46	45	44	39	32	30	22	45	39

Microphone position: 1.4m/*1.5m below the face center of the air return of the unit.

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FWMJCC2B	High	44	45	40	36	26	19	10	42	35
	Med	40	38	34	28	19	9	7	35	29
	Low	37	32	27	20	14	7	7	29	21
FWMJCC4B	High	48	48	44	39	31	27	15	45	39
	Med	42	42	36	30	22	13	7	38	31
	Low	39	36	28	20	15	6	6	30	23
FWMJCC5B	High	52	51	46	41	34	31	19	48	41
	Med	44	43	39	33	26	18	8	40	33
	Low	41	39	35	28	22	11	7	36	30

Microphone position: 1.4m below the face center of the air return of the unit.

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FWKE05E	High	39	39	37	28	18	11	6	37	32
	Med	36	33	31	20	8	6	6	31	25
	Low	28	26	23	12	4	5	6	23	16
	Quiet	21	17	13	6	4	5	6	16	-
FWKE08E	High	49	47	46	40	34	33	20	47	41
	Med	46	43	42	35	29	24	12	42	37
	Low	44	39	37	28	20	12	7	37	32
	Quiet	41	32	30	20	9	6	7	31	24
FWKE11E	High	53	50	50	45	38	36	25	51	46
	Med	49	45	46	40	33	30	17	46	41
	Low	42	40	41	33	26	19	8	41	36
	Quiet	39	34	34	25	14	7	6	34	29

Microphone position: 1.5m below the centre of the unit.

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FWPMM3A	High	43	35	35	30	26	18	13	36	30
	Med	43	34	34	28	25	17	12	35	29
	Low	42	31	31	27	22	14	9	33	25
FWPMM4A	High	46	40	40	33	29	21	17	40	35
	Med	45	38	38	31	27	18	14	38	33
	Low	40	33	33	26	21	11	9	33	28
FWPMM6A	High	47	41	43	35	31	24	19	42	38
	Med	47	41	41	34	31	23	18	41	36
	Low	47	39	39	33	29	21	16	40	34
FWPMM7A	High	48	41	40	35	31	24	19	41	35
	Med	47	39	39	34	29	22	17	40	34
	Low	44	35	35	30	25	17	12	36	30
FWPMM8A	High	45	42	39	35	31	26	22	41	34
	Med	42	38	37	32	28	22	17	38	32
	Low	36	33	33	27	23	16	11	34	27
FWPMM9A	High	50	45	43	42	37	31	26	46	41
	Med	45	40	40	38	32	26	20	42	37
	Low	42	36	37	33	28	22	15	38	32

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FWPMM12A	High	54	47	47	45	39	35	29	49	44
	Med	49	42	43	41	35	31	24	45	40
	Low	45	39	41	37	30	26	18	41	36
FWPMM14A	High	54	49	49	48	43	37	32	52	47
	Med	53	47	46	47	40	35	29	50	46
	Low	51	45	44	44	36	32	26	47	43
FWPMM16A	High	55	49	49	50	44	37	33	53	49
	Med	53	46	47	47	39	34	28	50	46
	Low	51	43	44	43	35	30	24	47	42

Microphone position: 1.5m below the centre of the unit.

(Tested with 2m length duct at the air discharge outlet and air return inlet).

Model	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
UAHMM20A	High	57	50	47	44	40	35	24	50	43
	Med	57	46	44	40	35	30	17	46	41
	Low	48	42	41	35	30	24	6	42	36
UAHMM25A	High	57	53	50	50	44	40	31	54	49
	Med	55	51	49	48	42	38	28	52	47
	Low	54	50	48	46	40	35	25	50	45
UAHMM30A	High	57	55	56	53	51	46	38	58	53
UAHMM40A	High	57	55	56	53	51	46	38	58	53

Microphone position: 1m in front of the unit and center of the unit.

1m away from every side of the unit and 1m above floor level

Sound Power Level

Model	Speed	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall A (dBA)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
FWMT02C	High	40	43	44	41	36	23	19	45
	Med	39	40	40	37	29	20	28	41
	Low	38	37	35	32	21	16	23	36
FWMT03C	High	48	45	46	44	38	28	20	48
	Med	48	41	42	40	32	18	19	44
	Low	45	37	38	35	24	14	18	39
FWMT04C	High	48	50	52	51	46	38	26	55
	Med	45	47	49	47	41	32	22	50
	Low	43	42	44	41	34	22	18	45
FWMT05C	High	50	51	53	51	42	33	20	55
	Med	47	49	50	48	38	27	17	51
	Low	45	46	47	44	33	22	17	47
FWMT06C	High	53	55	55	55	50	40	26	59
	Med	48	51	52	50	42	33	21	54
	Low	45	48	50	47	38	29	18	51

Measured In Reverberation Chamber

Model	Speed	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall A (dBA)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
FWMJC6B	High	53	54	52	45	35	31	19	52
	Med	50	51	48	39	29	23	17	47
	Low	46	45	42	32	22	14	17	41
FWMJC8B	High	58	58	55	48	39	37	25	55
	Med	53	53	51	43	33	29	18	51
	Low	49	48	45	36	28	21	17	45
FWMJC9B	High	59	61	56	51	43	44	31	58
	Med	54	55	52	46	38	36	23	53
	Low	50	50	47	40	32	26	17	47
FWMJC11B	High	60	60	58	54	45	45	33	59
	Med	57	57	56	50	41	40	26	56
	Low	53	53	51	44	35	32	19	51
FWMJC13B	High	64	66	61	55	48	48	37	62
	Med	59	60	57	52	44	44	32	58
	Low	56	56	54	48	40	38	25	55

Measured In Reverberation Chamber

Model	Speed	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall A (dBA)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
FWMJCC2B	High	53	56	49	43	35	28	21	52
	Med	47	49	42	35	26	20	19	45
	Low	43	44	36	27	19	14	19	39
FWMJCC4B	High	56	58	55	50	42	38	29	56
	Med	50	51	48	41	32	26	20	49
	Low	47	49	45	37	27	20	19	45
FWMJCC5B	High	56	58	55	50	42	38	29	56
	Med	50	51	48	41	32	26	20	49
	Low	47	49	45	37	27	20	19	45

Measured In Reverberation Chamber

Model	Speed	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall A (dBA)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
FWKE05E	High	49	50	45	36	26	20	19	46
	Med	46	44	39	28	16	15	18	40
	Low	38	40	32	22	14	15	20	34
	Quiet	33	38	24	15	10	14	18	30
FWKE08E	High	59	58	56	50	42	42	30	67
	64	54	54	51	44	37	34	23	52
	Low	57	55	45	37	29	22	25	49
	Quiet	50	44	39	29	17	15	19	40
FWKE11E	High	63	60	58	53	45	46	34	59
	Med	60	55	54	48	40	40	27	55
	Low	58	50	49	41	34	29	20	49
	Quiet	53	45	42	33	22	16	19	43

Measured In Reverberation Chamber

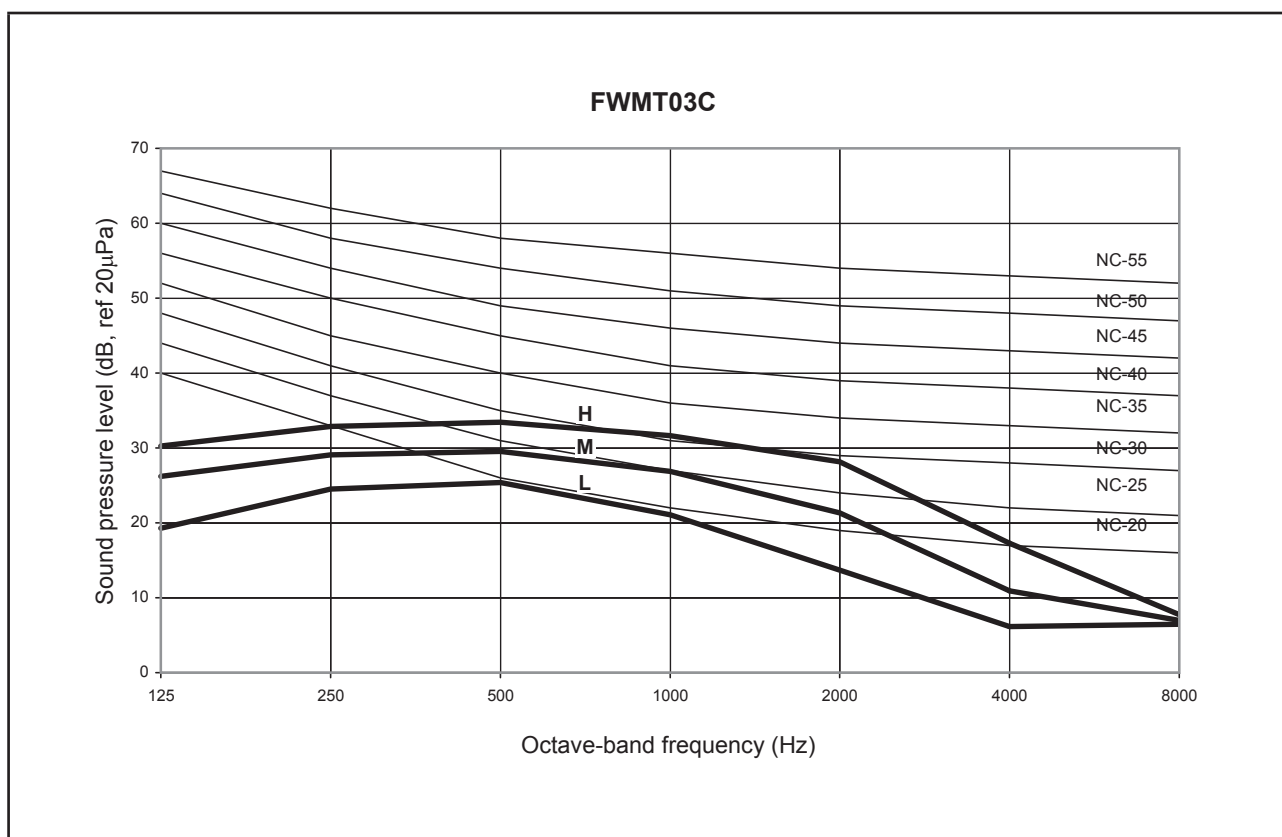
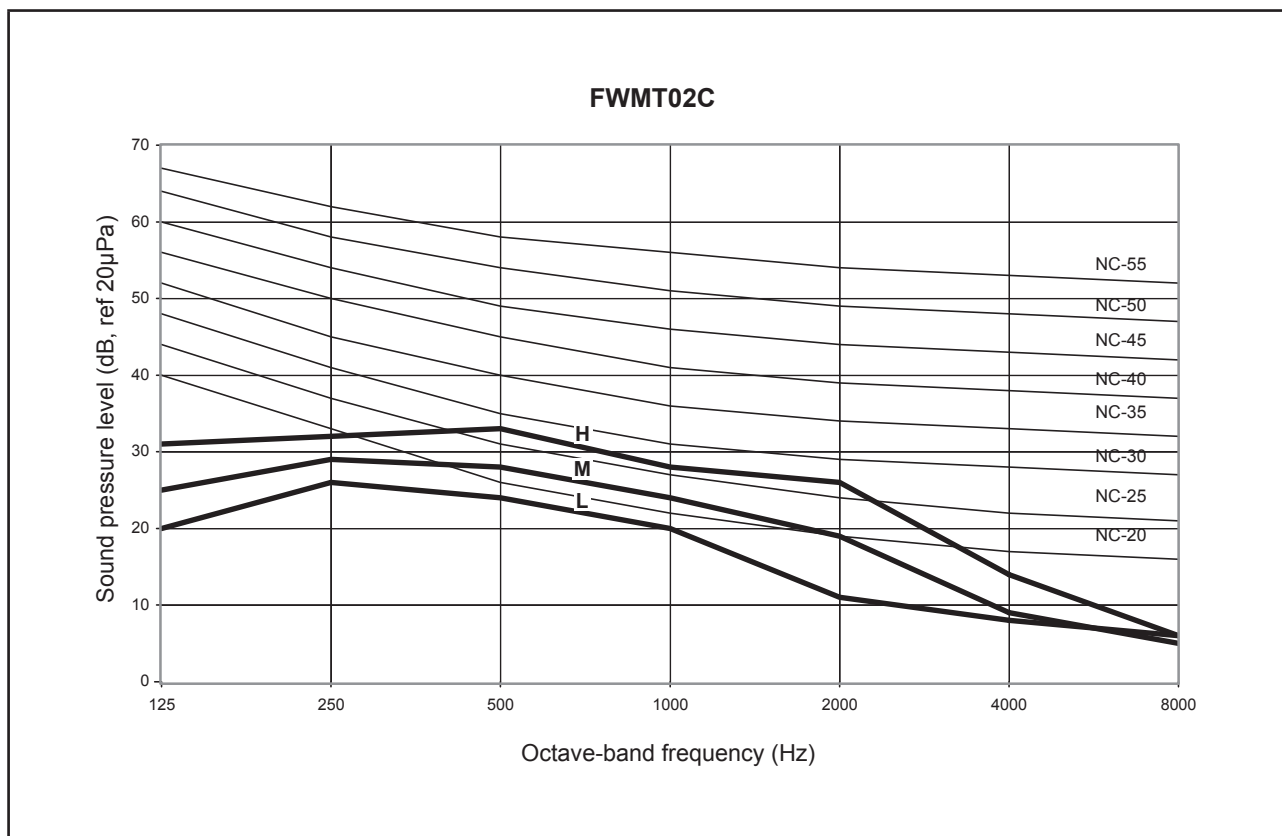
Model	Speed	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall A (dBA)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
FWPMM3A	High	57	54	52	52	51	46	44	57
	Med	54	51	50	49	48	43	39	54
	Low	51	48	47	46	44	39	35	51
FWPMM4A	High	60	58	57	56	54	48	44	61
	Med	56	55	54	53	50	44	40	58
	Low	51	50	49	48	44	37	34	52
FWPMM6A	High	63	62	61	61	59	55	51	65
	Med	61	61	59	60	58	53	49	64
	Low	57	56	56	56	53	48	44	60
FWPMM7A	High	63	62	61	62	59	56	53	66
	Med	61	60	59	60	57	53	50	64
	Low	58	57	56	57	54	49	47	61
FWPMM8A	High	59	61	58	61	57	54	52	64
	Med	56	57	55	57	54	50	48	61
	Low	52	53	51	53	50	45	41	57
FWPMM9A	High	65	66	68	69	65	63	60	73
	Med	61	62	64	65	61	58	55	69
	Low	56	58	60	61	57	53	49	64
FWPMM11A	High	70	70	71	72	68	66	64	76
	Med	67	67	68	70	65	62	60	73
	Low	65	64	65	66	61	58	56	70
FWPMM12A	High	65	68	70	72	68	66	64	76
	Med	65	65	67	68	64	62	59	72
	Low	59	61	63	64	60	59	54	68
FWPMM14A	High	67	69	71	72	69	66	64	76
	Med	66	66	69	69	66	63	61	73
	Low	63	64	66	67	62	60	57	70
FWPMM16A	High	69	70	72	74	71	69	68	78
	Med	69	68	70	71	67	65	63	75
	Low	64	65	67	67	63	61	59	71

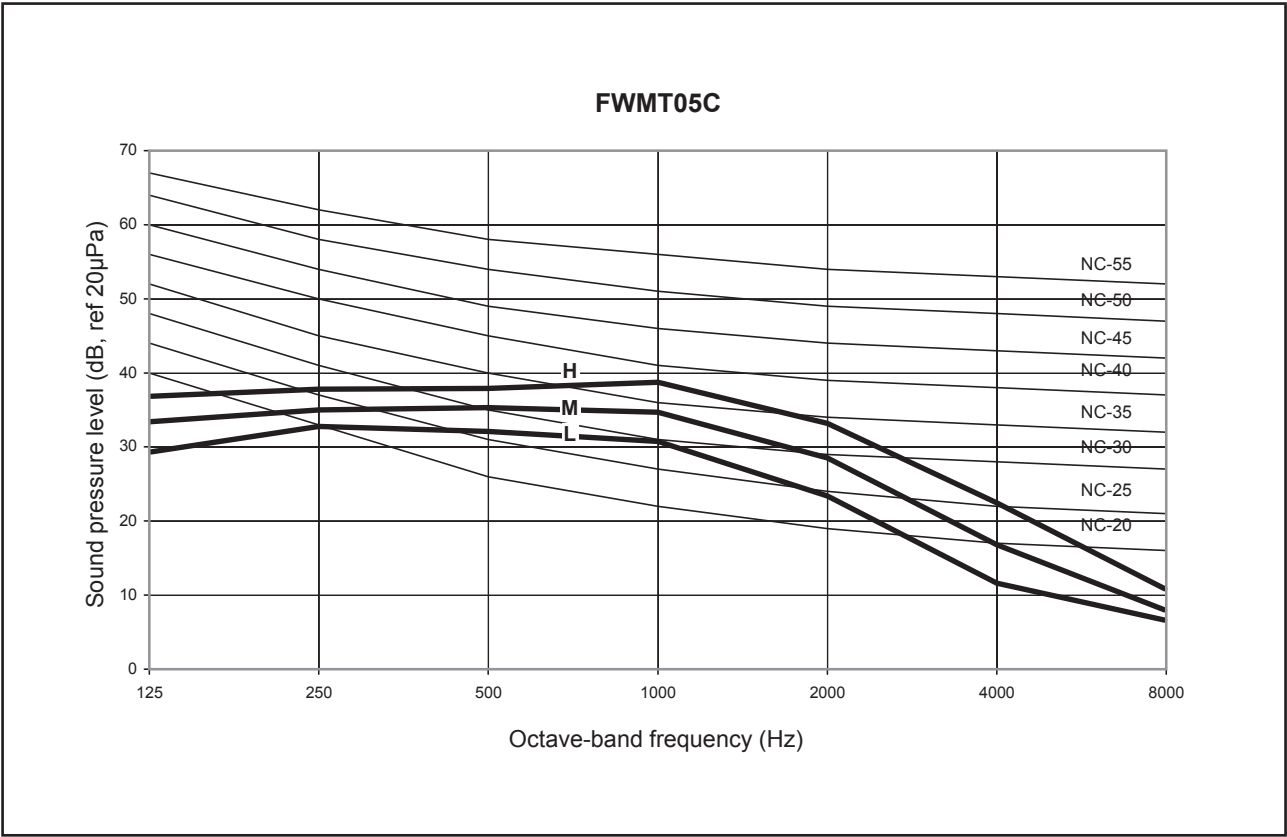
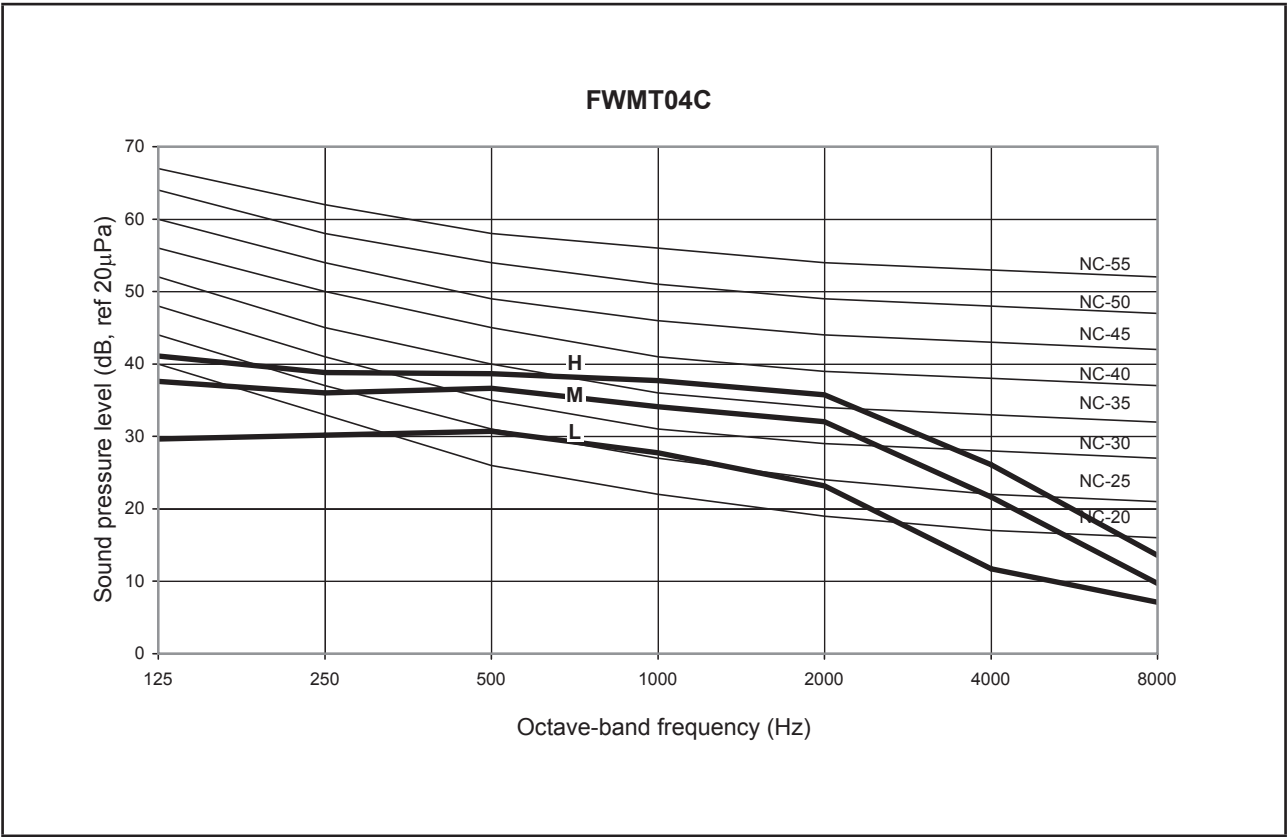
Measured In Reverberation Chamber

Model	Speed	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall A (dBA)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
UAHMM20A	High	68	67	72	70	65	65	57	74
	Med	64	64	68	65	61	59	51	69
	Low	61	60	63	60	56	53	43	65
UAHMM25A	High	71	71	74	74	70	70	63	78
	Med	70	69	73	72	68	68	60	76
	Low	67	67	71	69	65	64	56	73
UAHMM30A	High	75	76	75	72	69	65	60	77
UAHMM40A	High	75	76	75	72	69	65	60	77

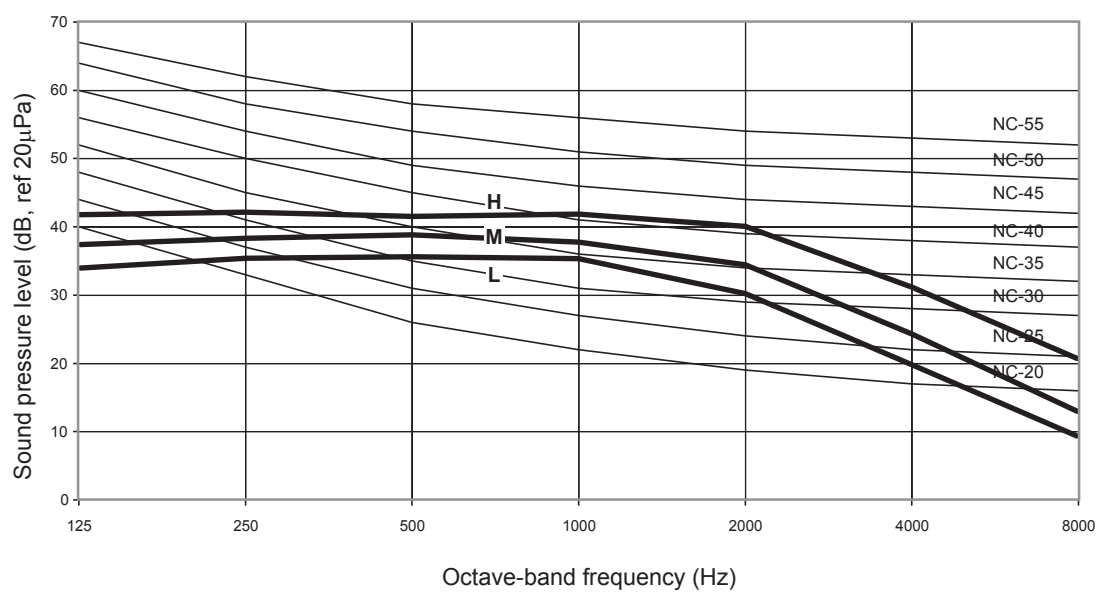
Measured In Reverberation Chamber

NC Curve

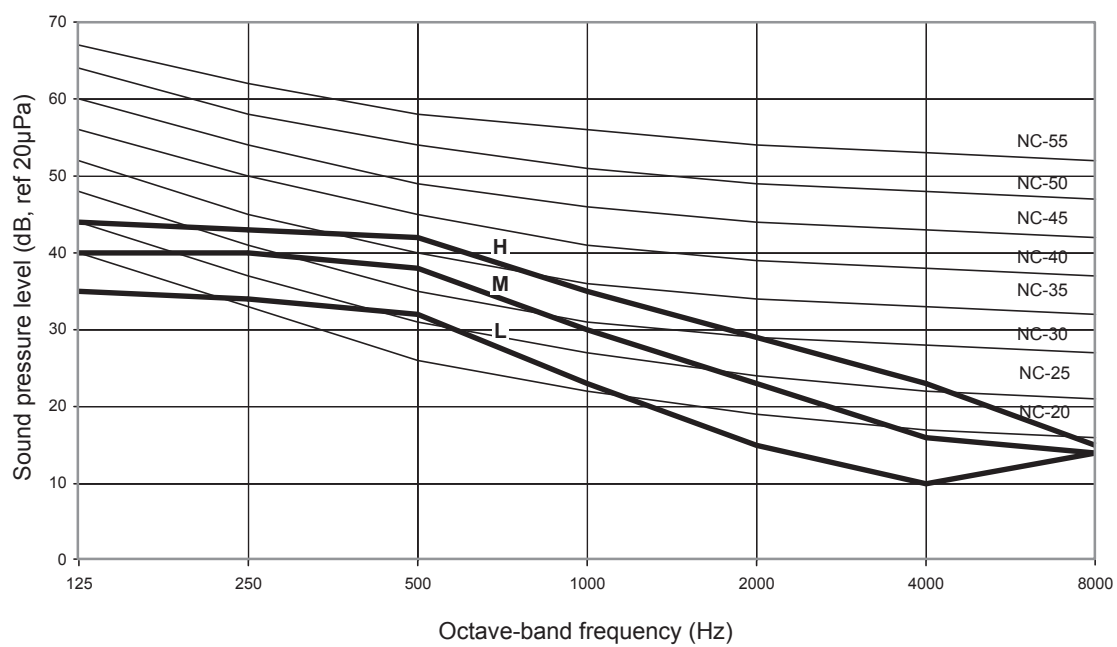


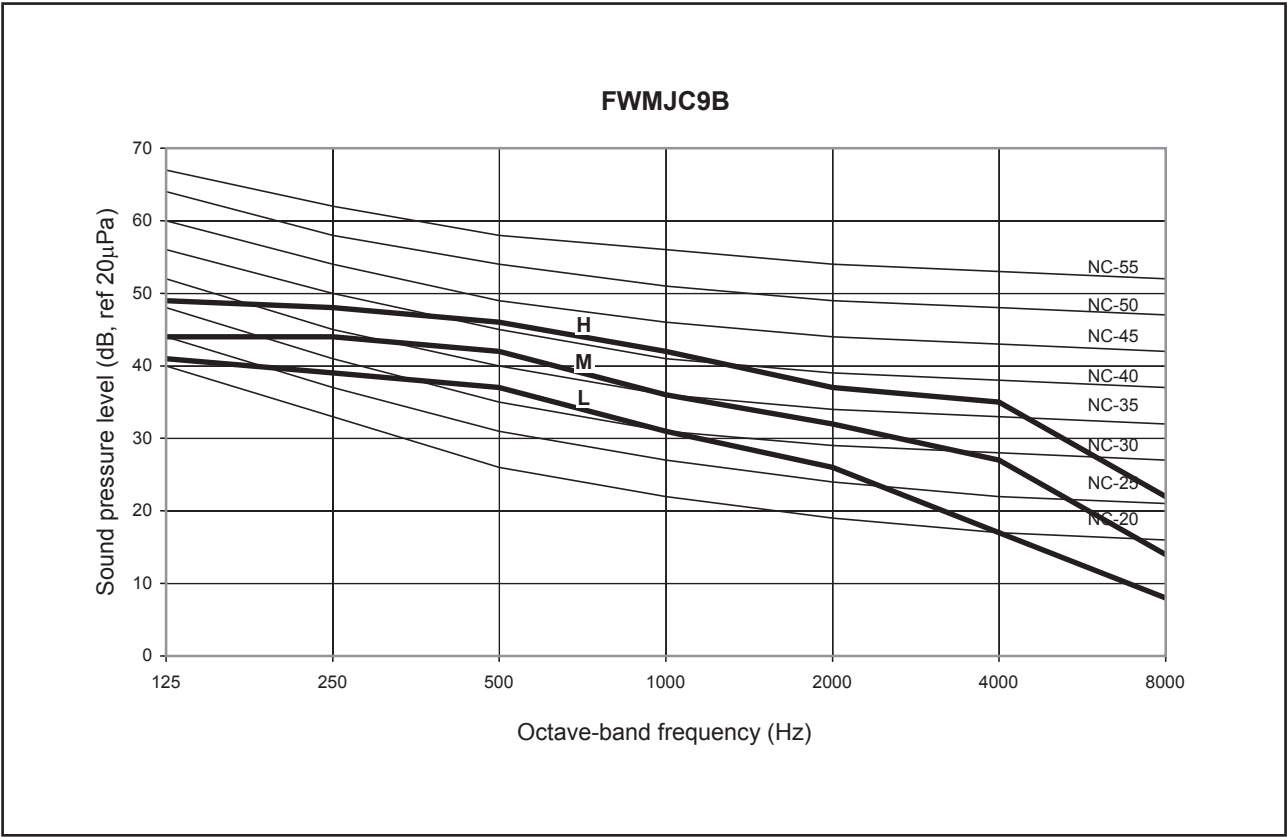
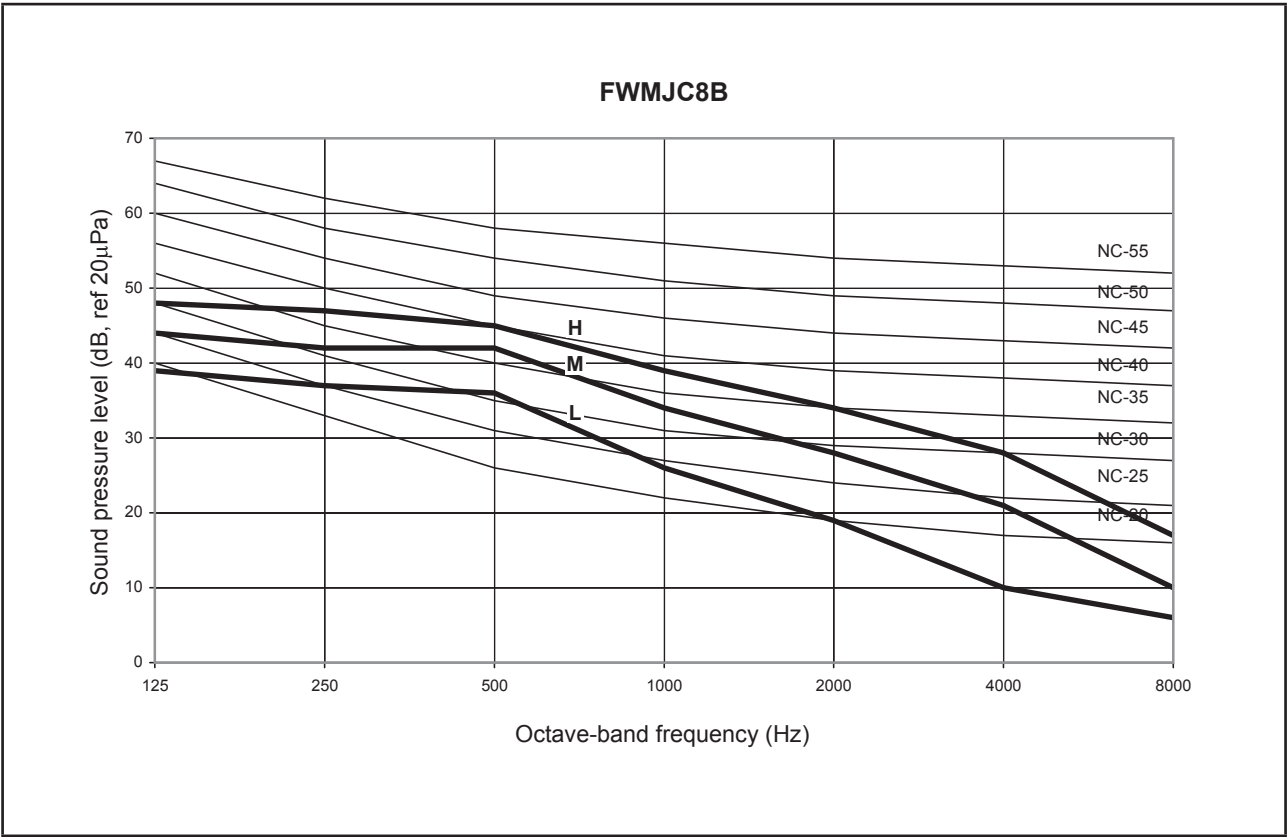


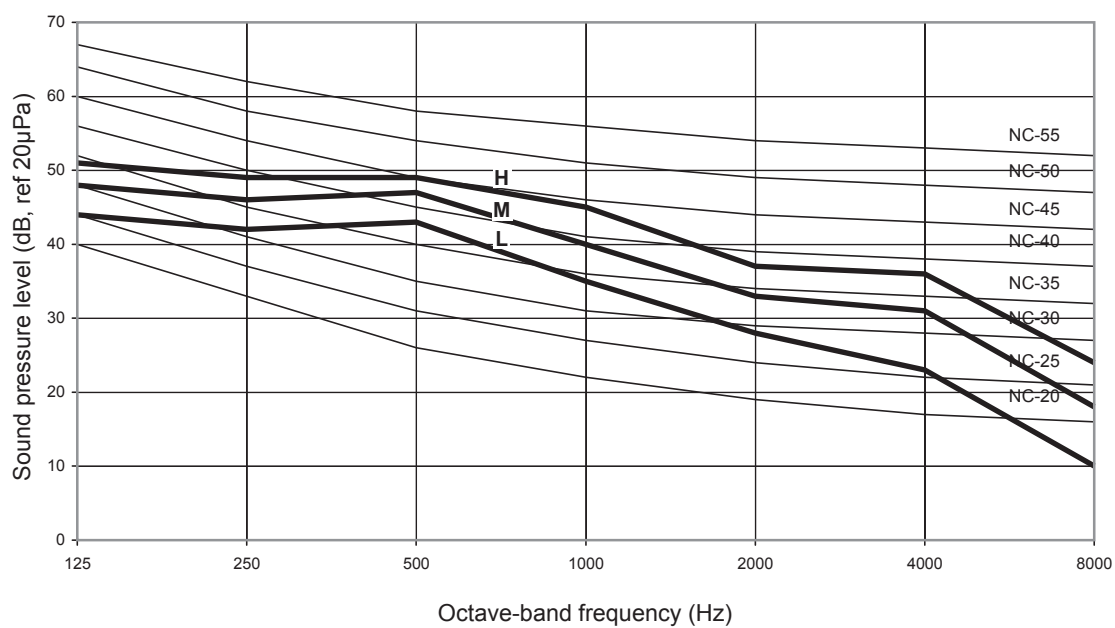
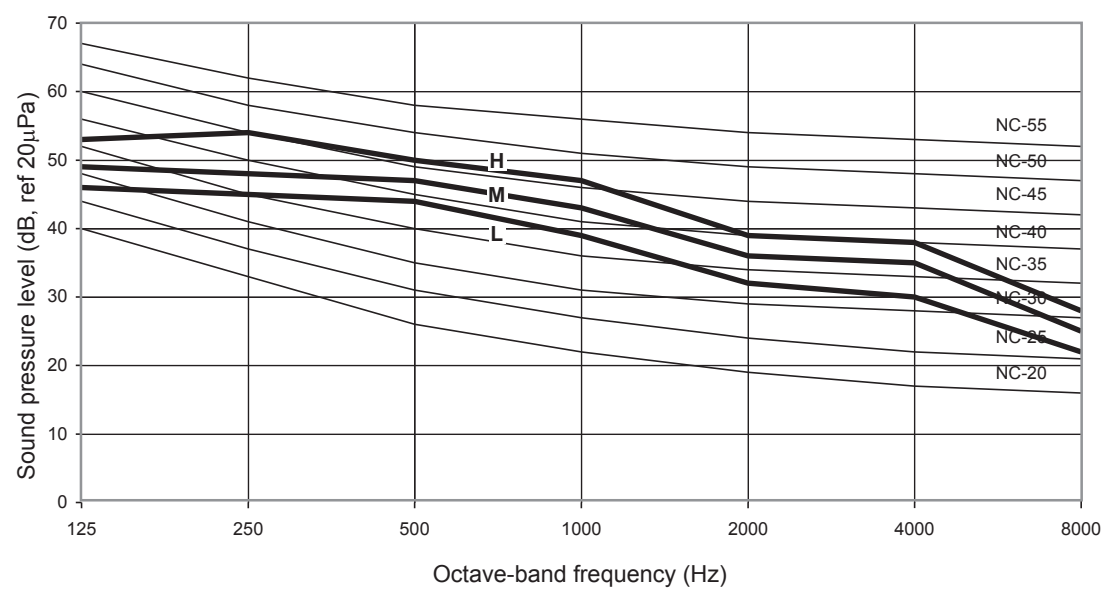
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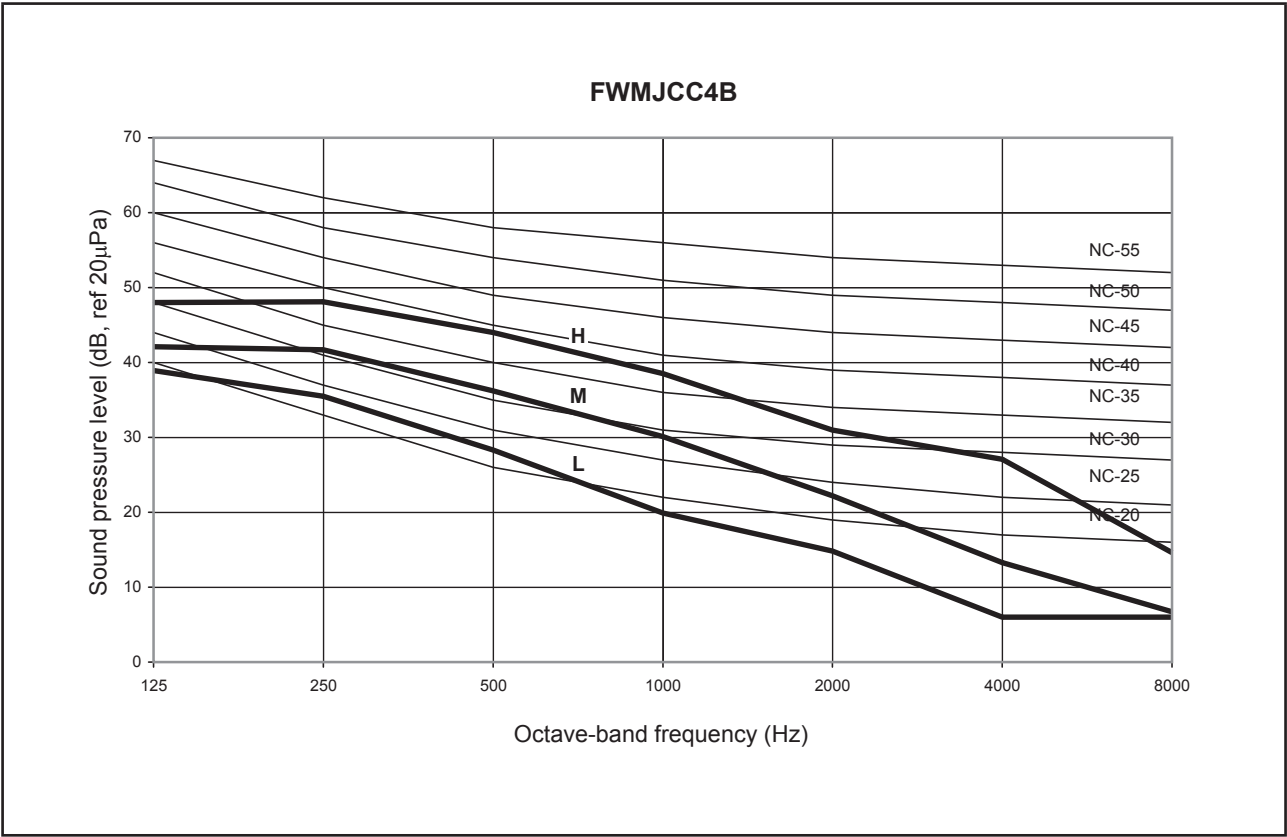
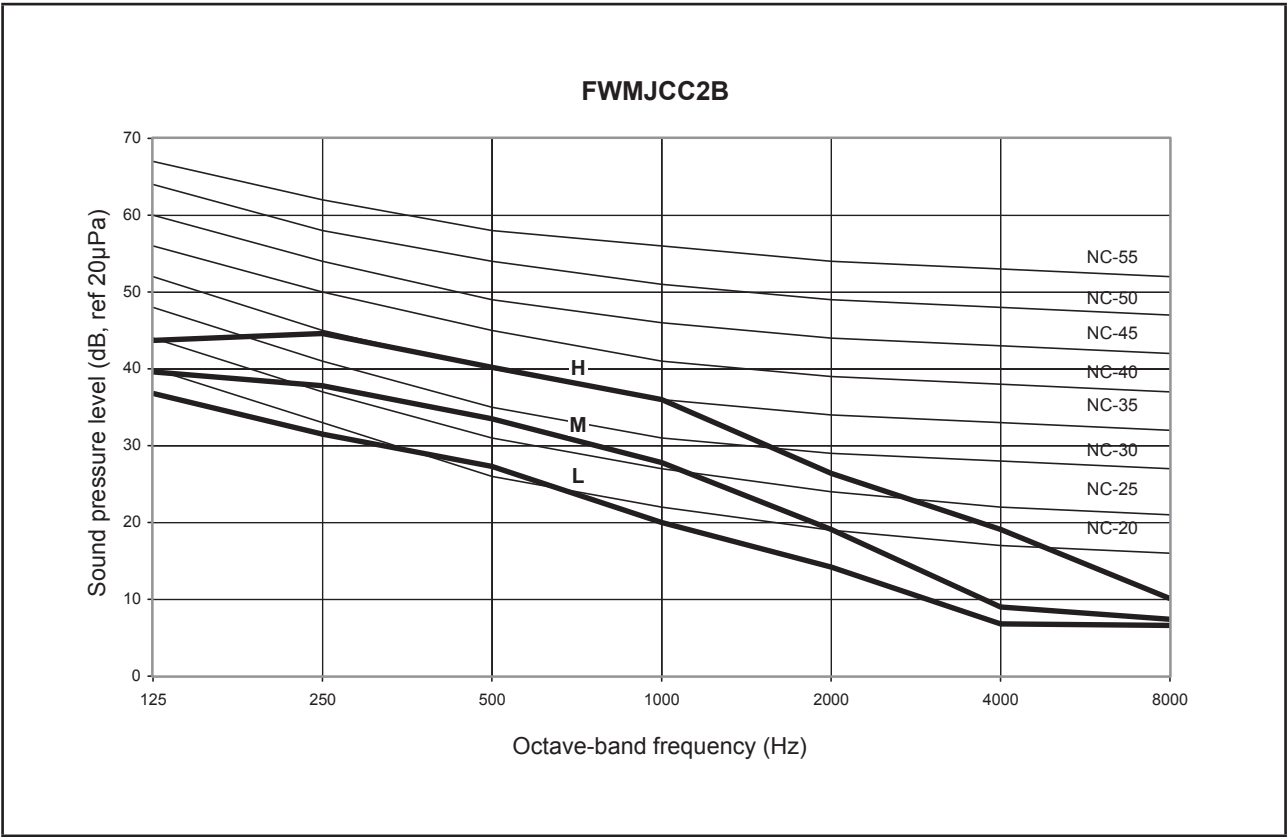


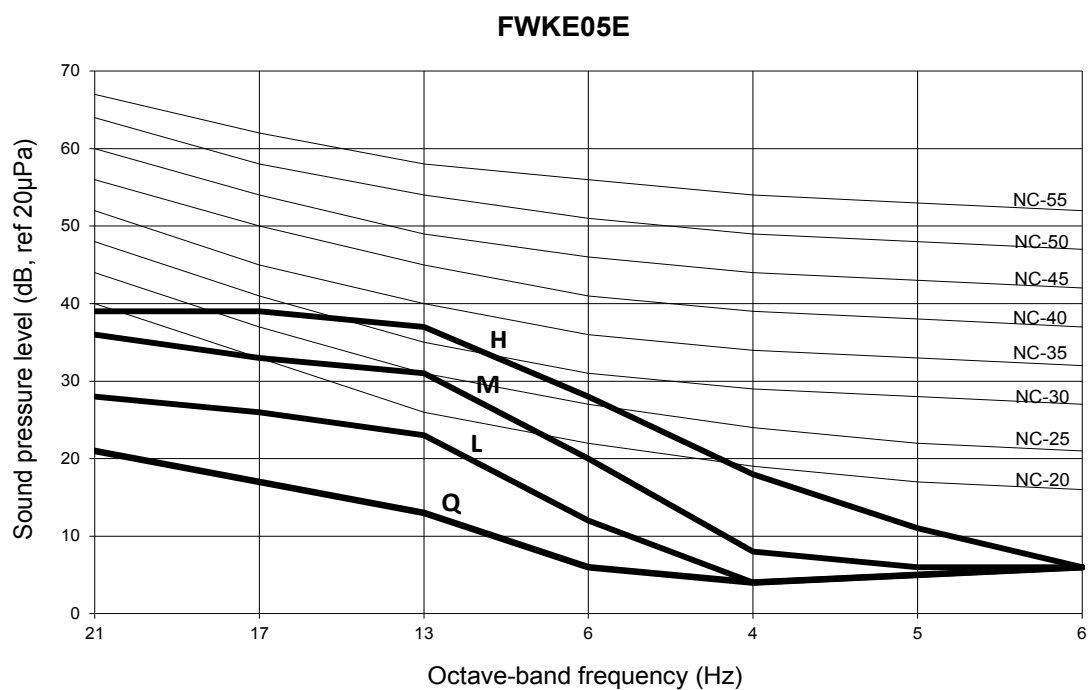
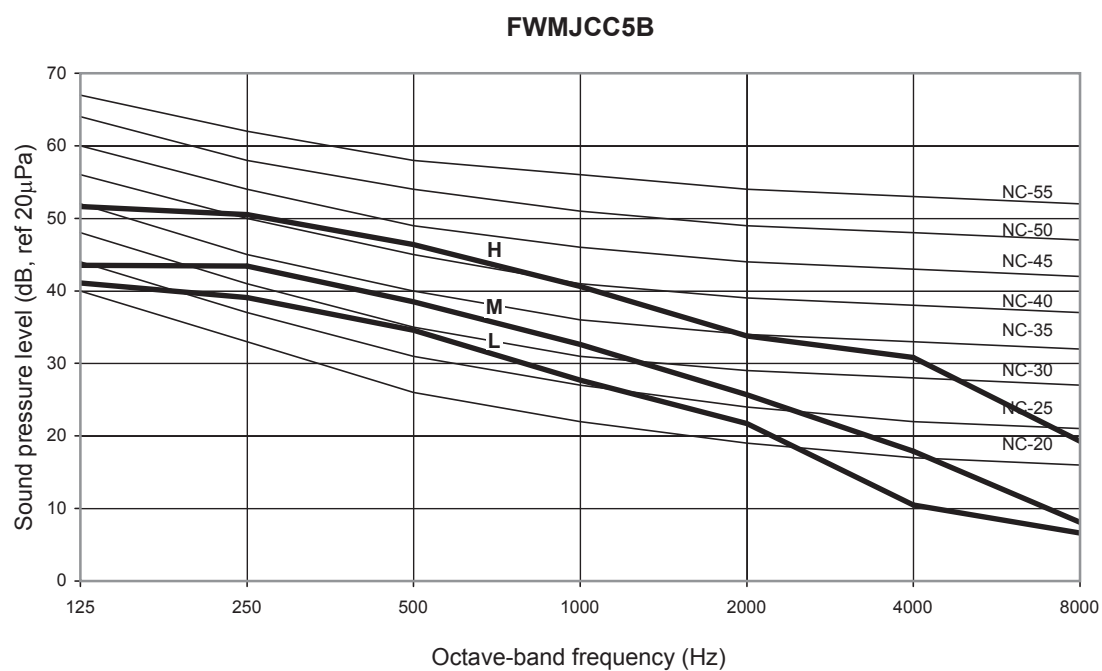
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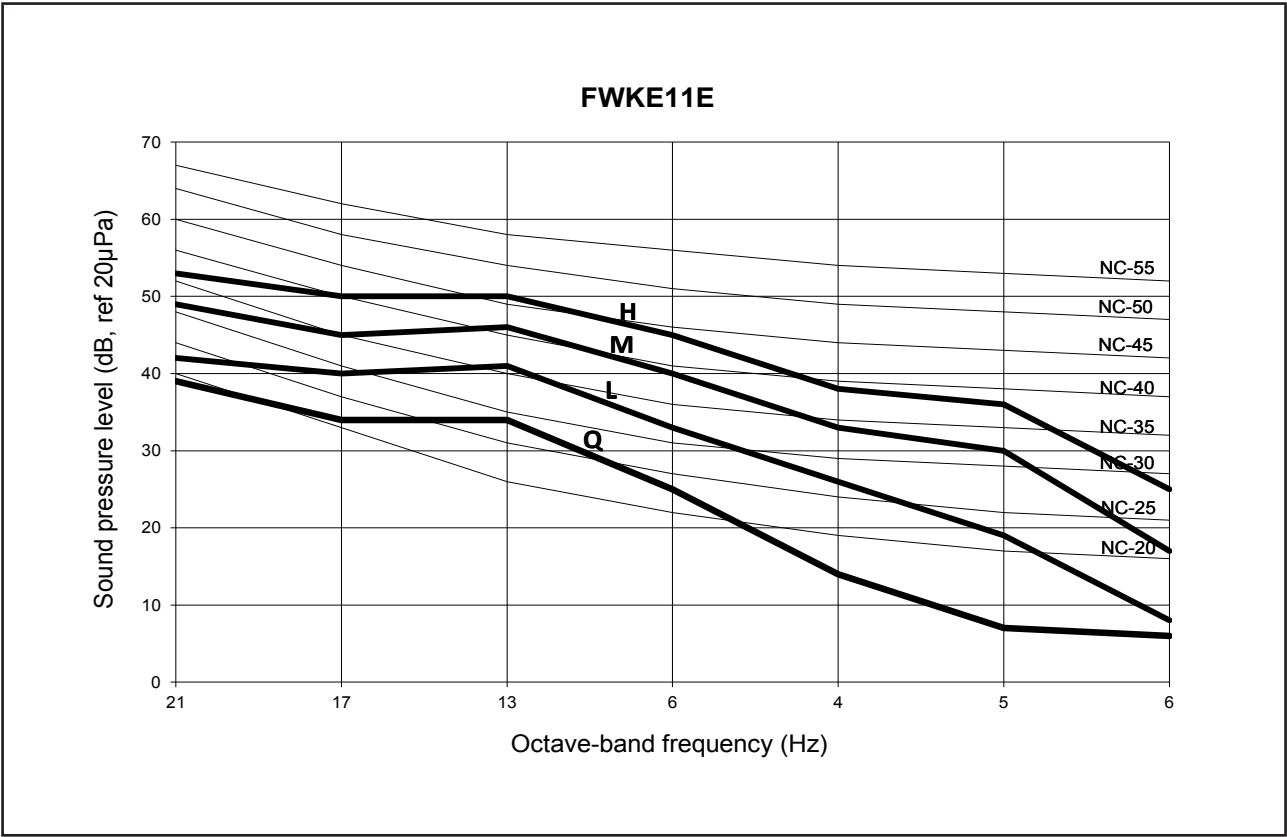
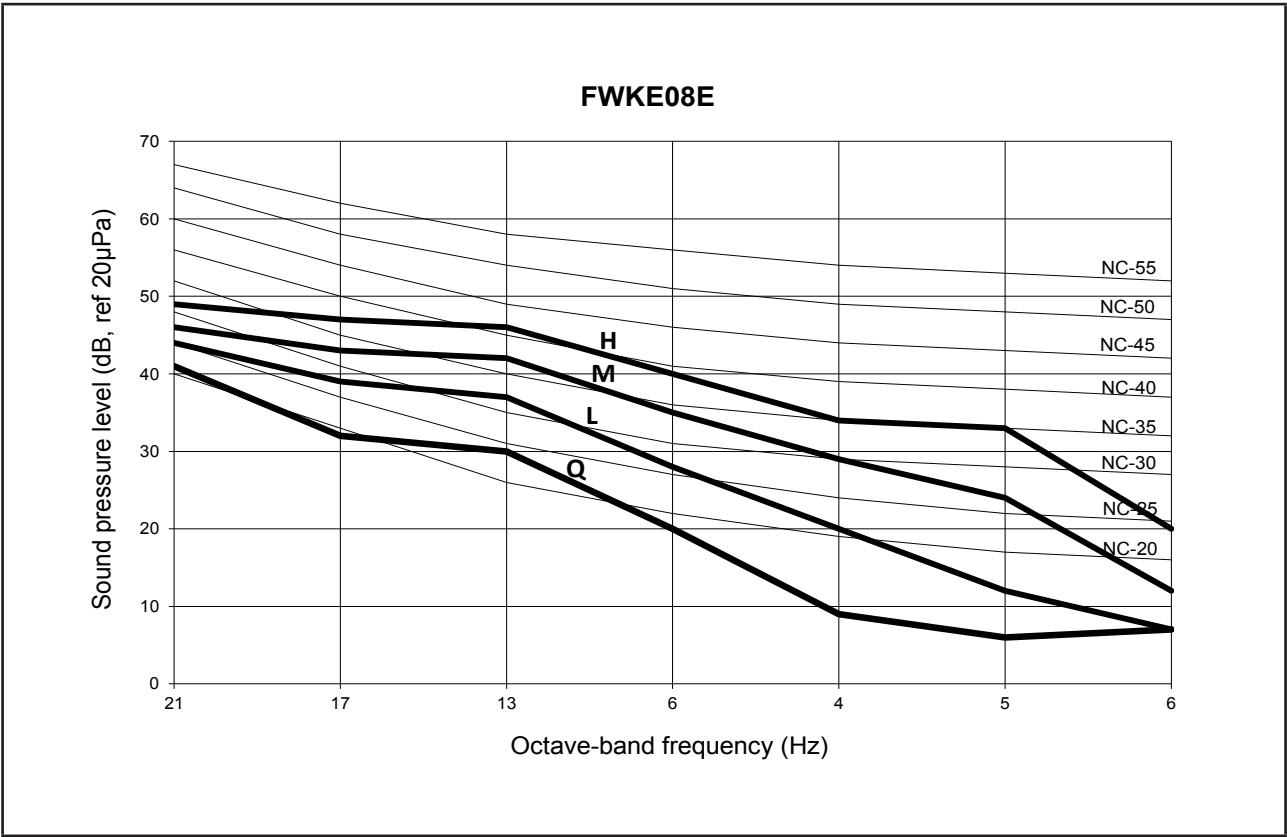


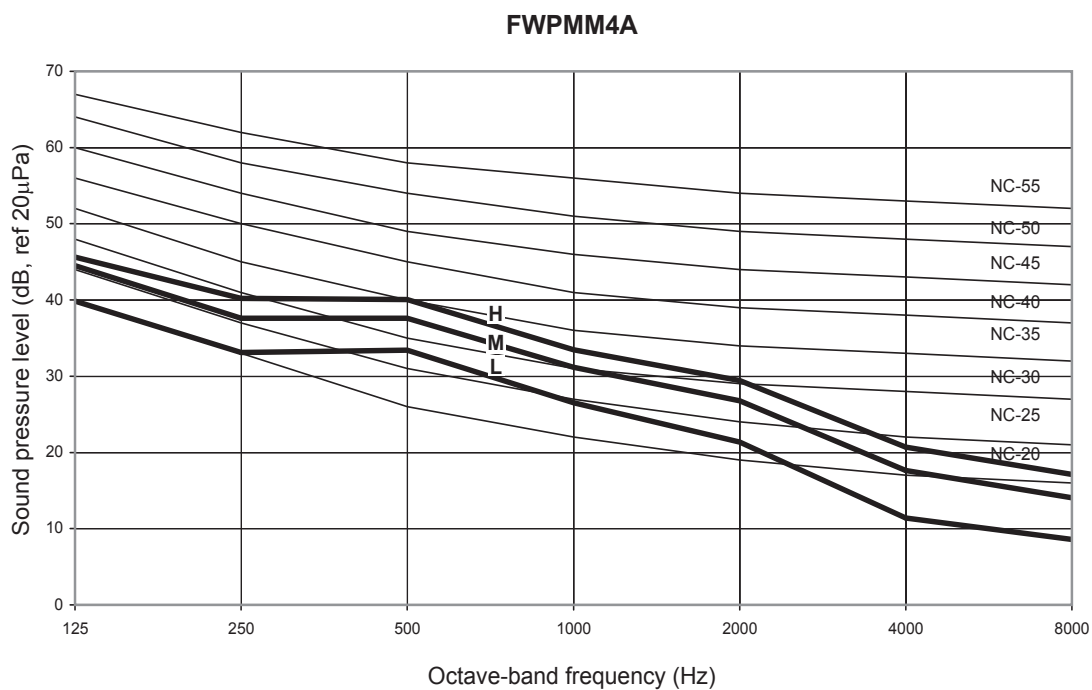
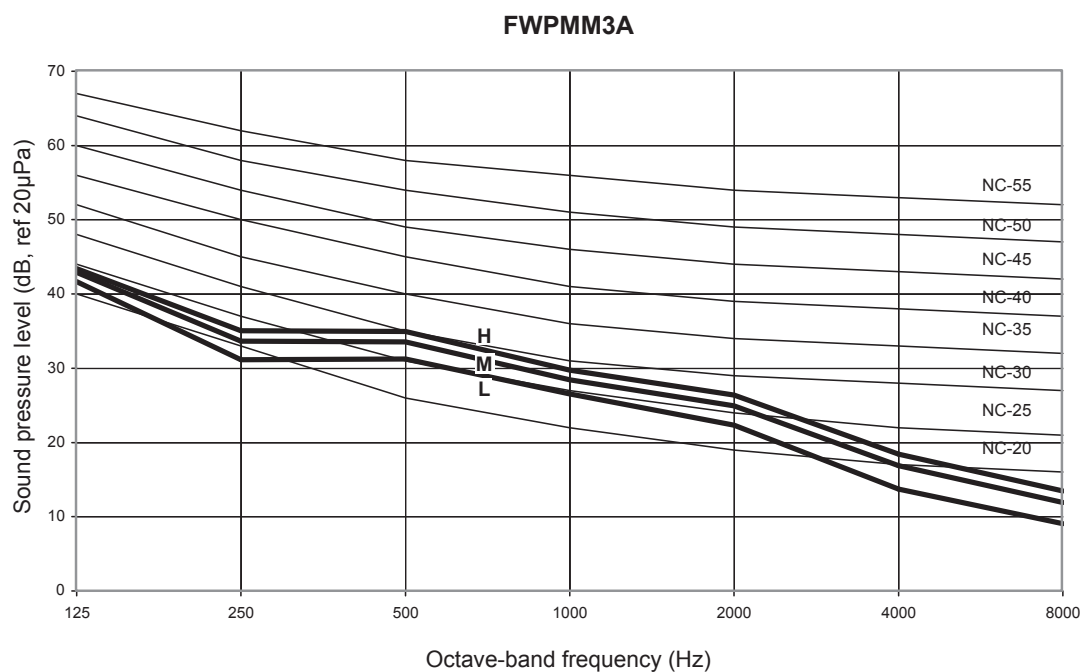


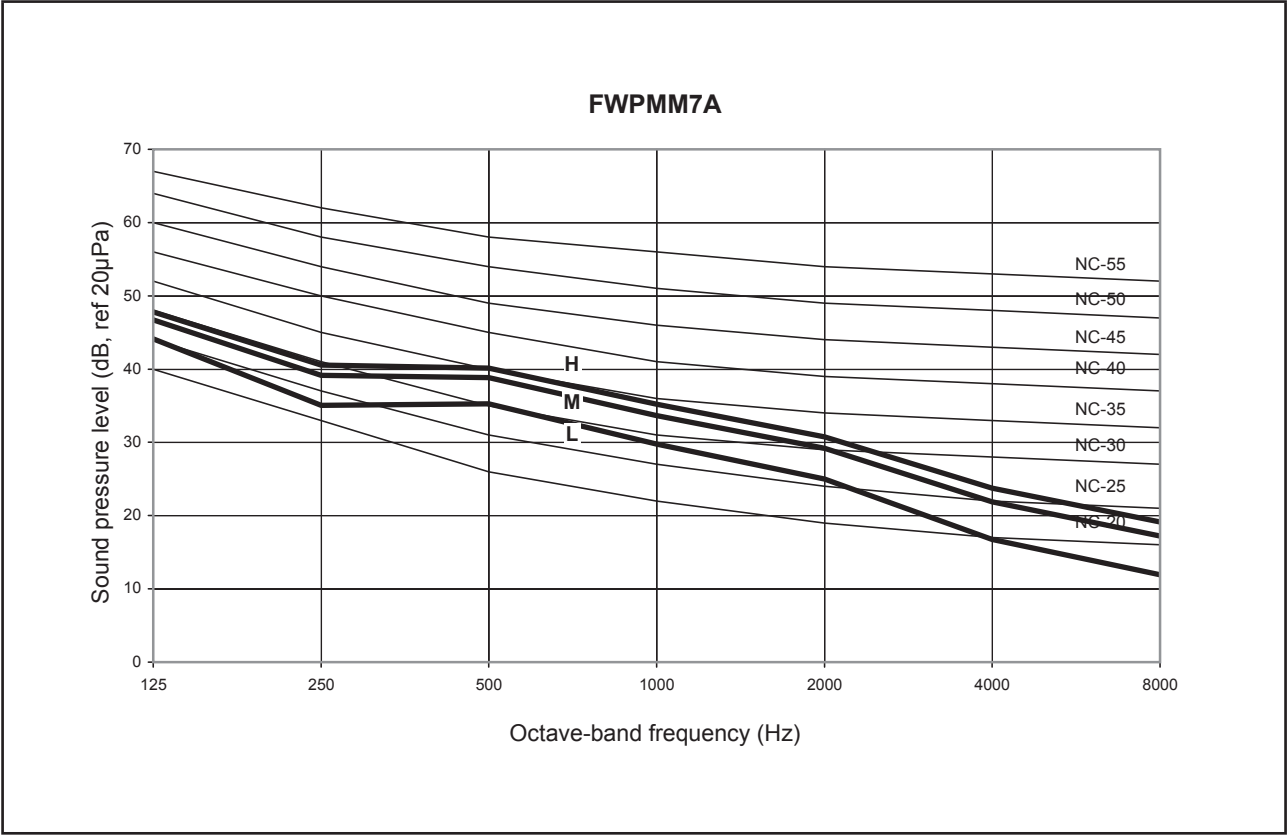
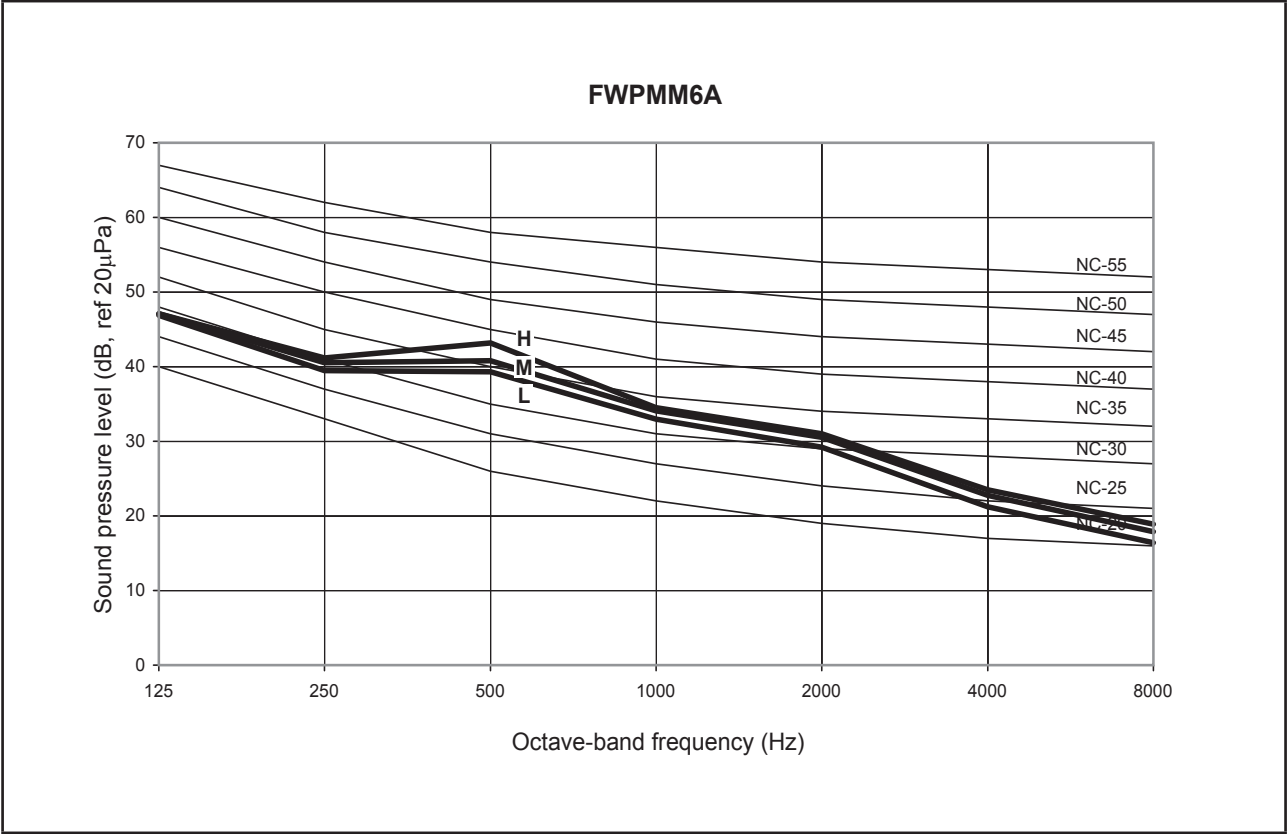
FWMJC11B**FWMJC13B**



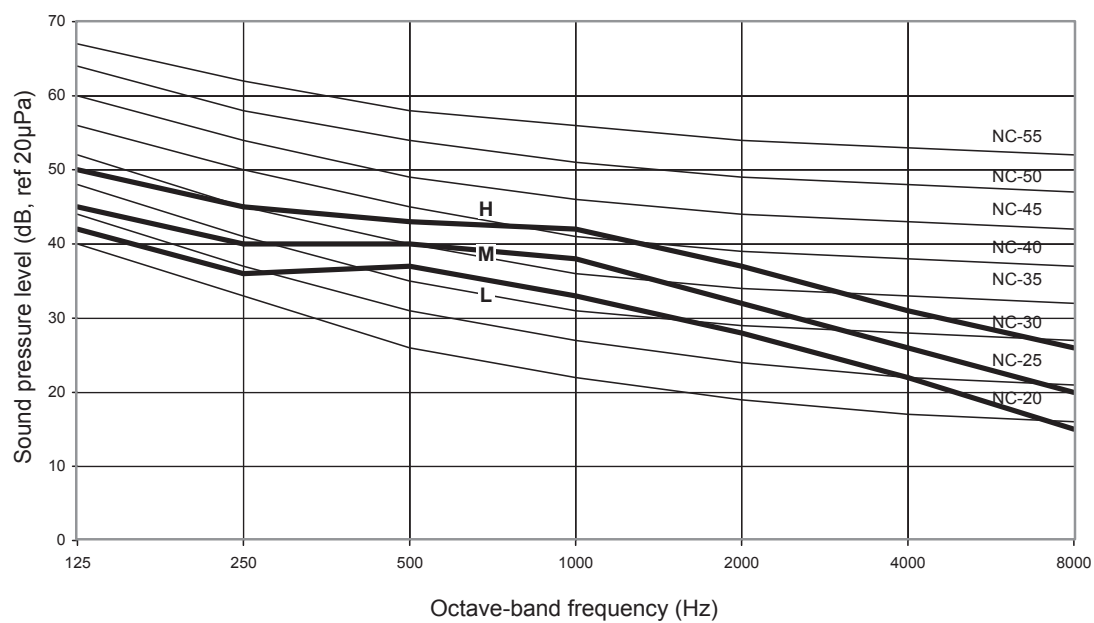




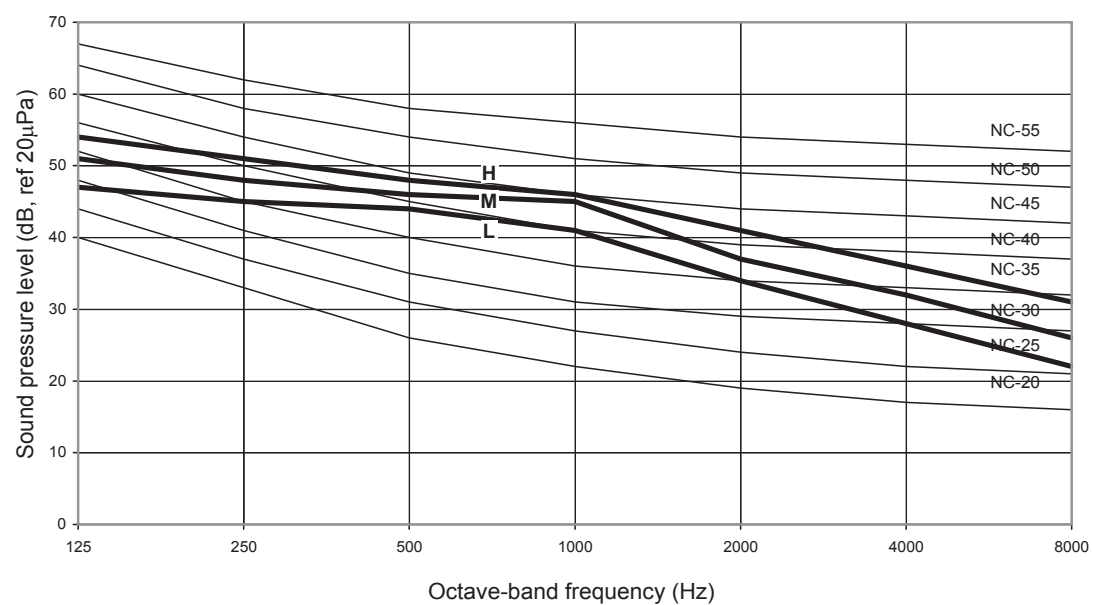


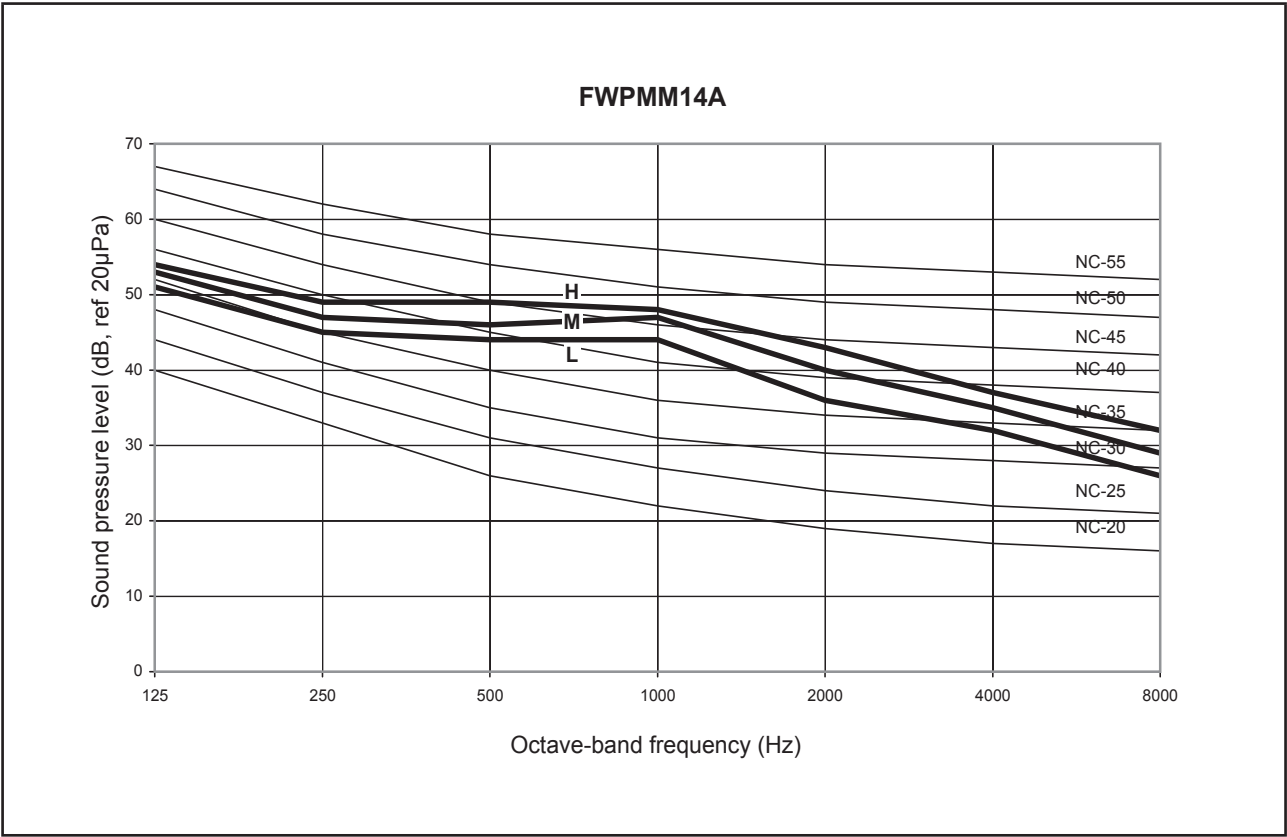
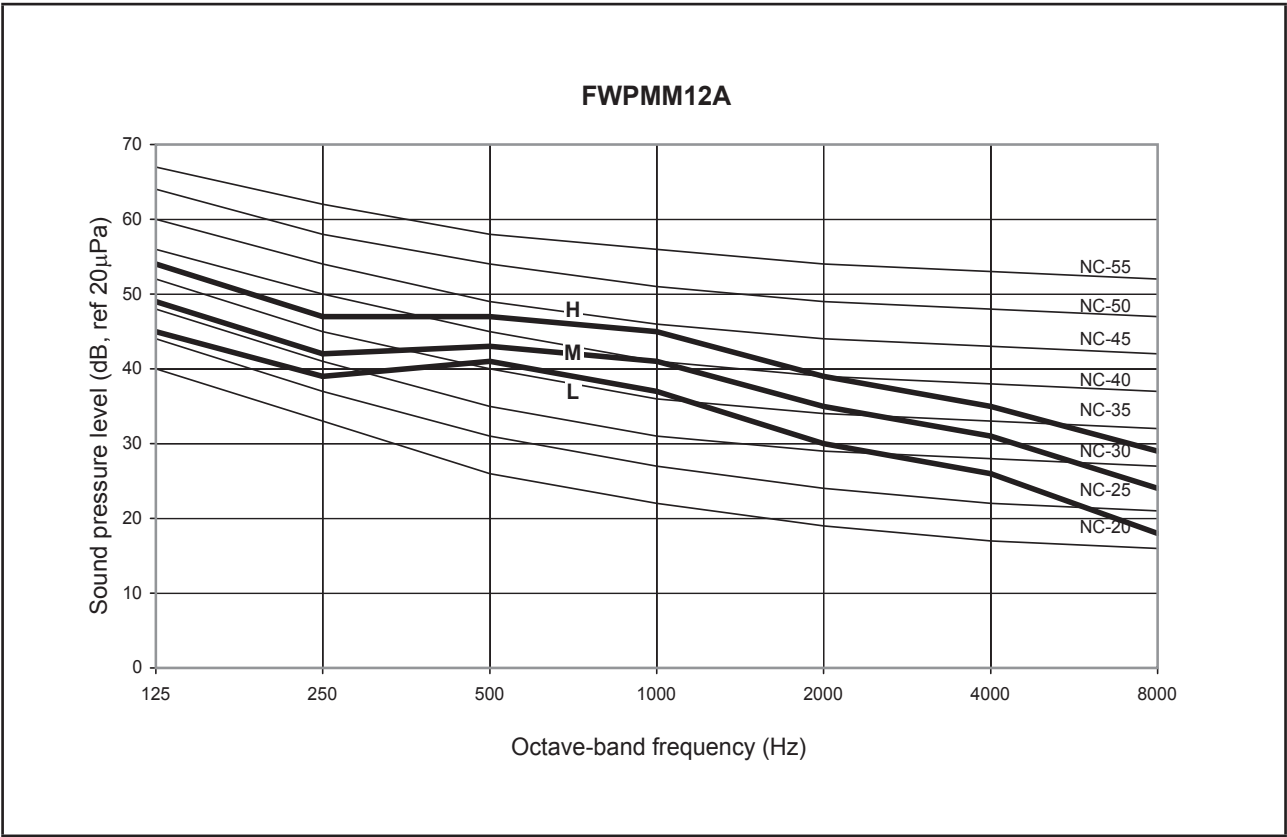


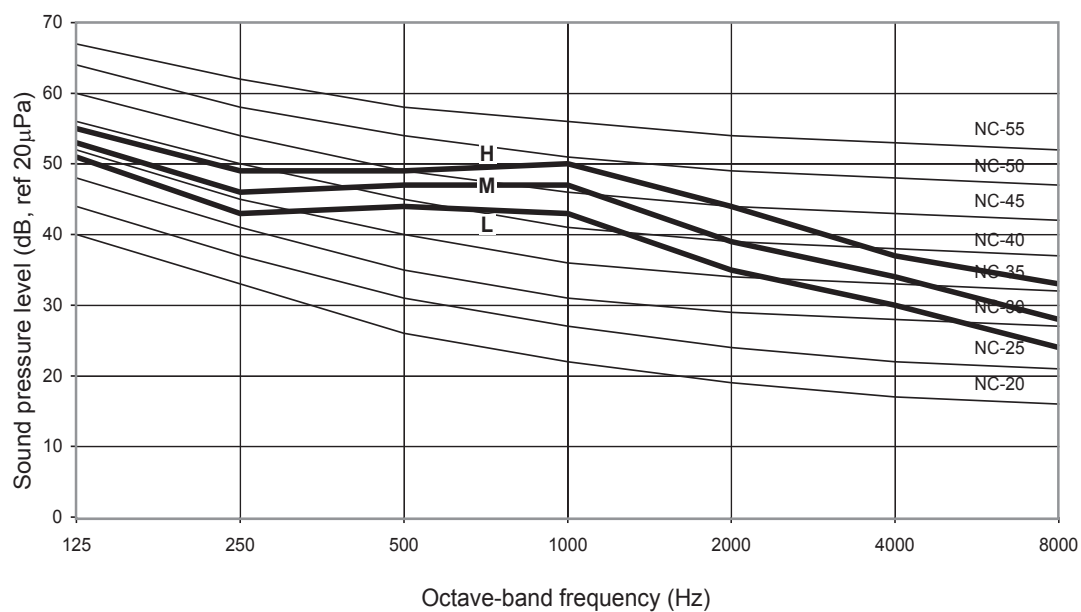
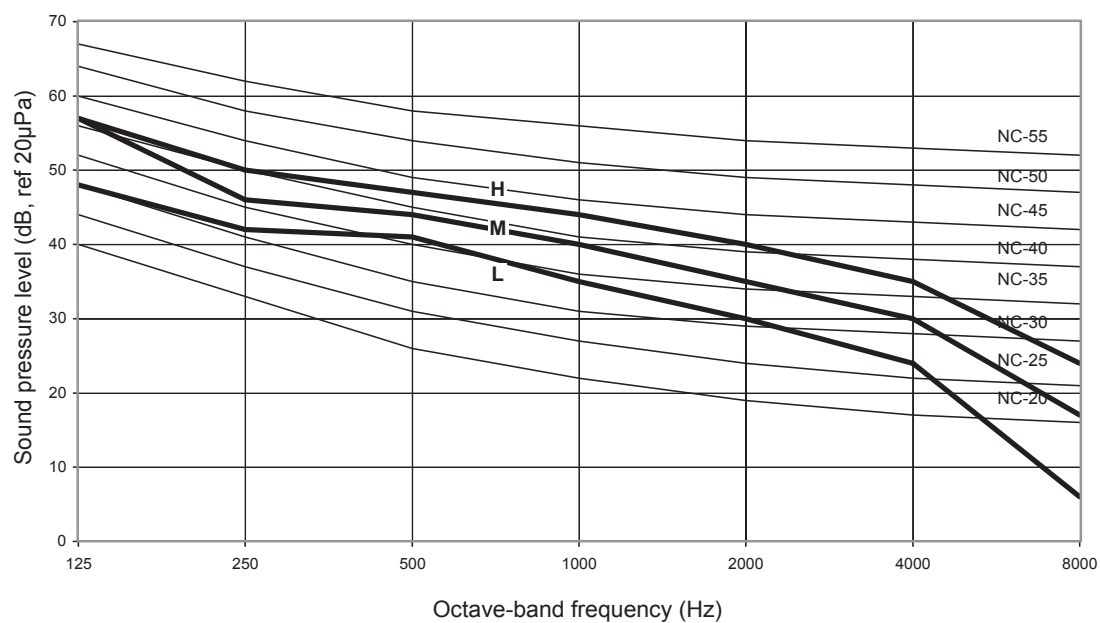
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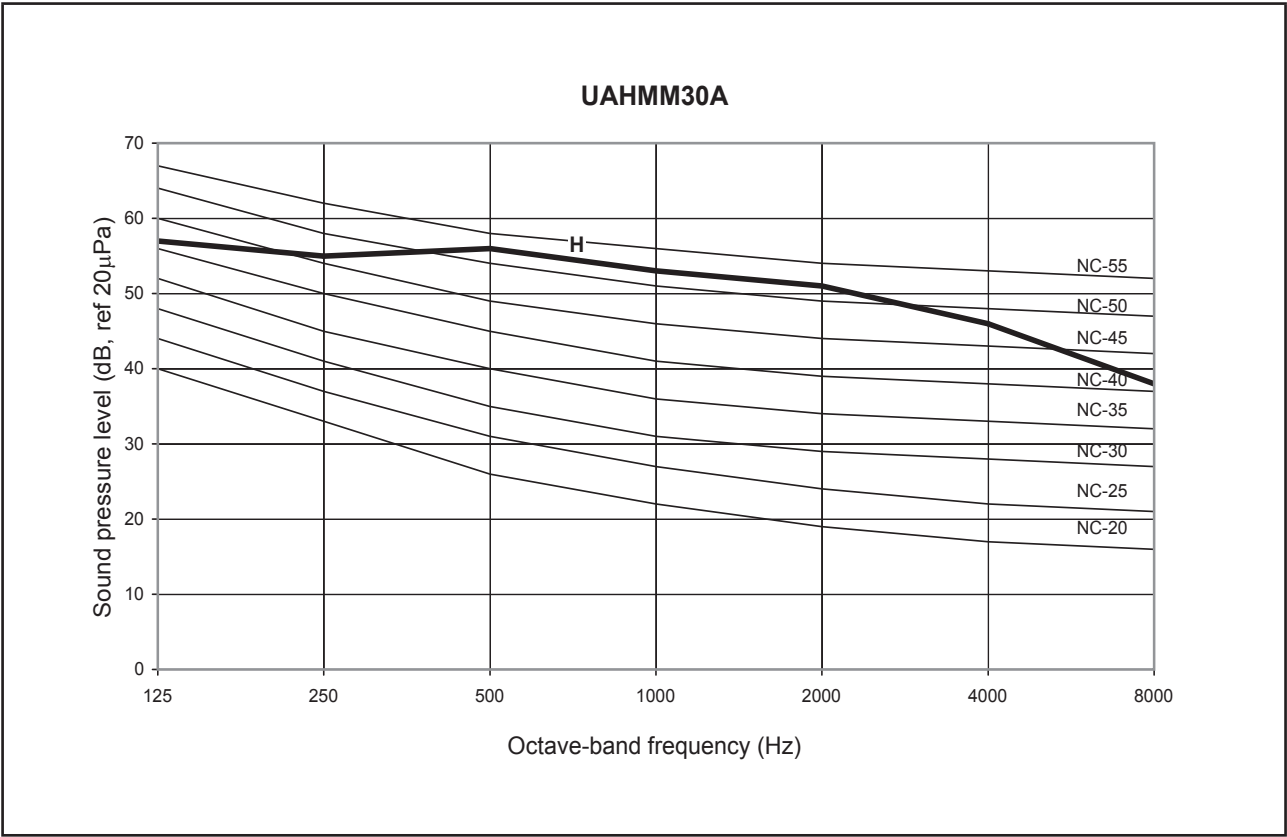
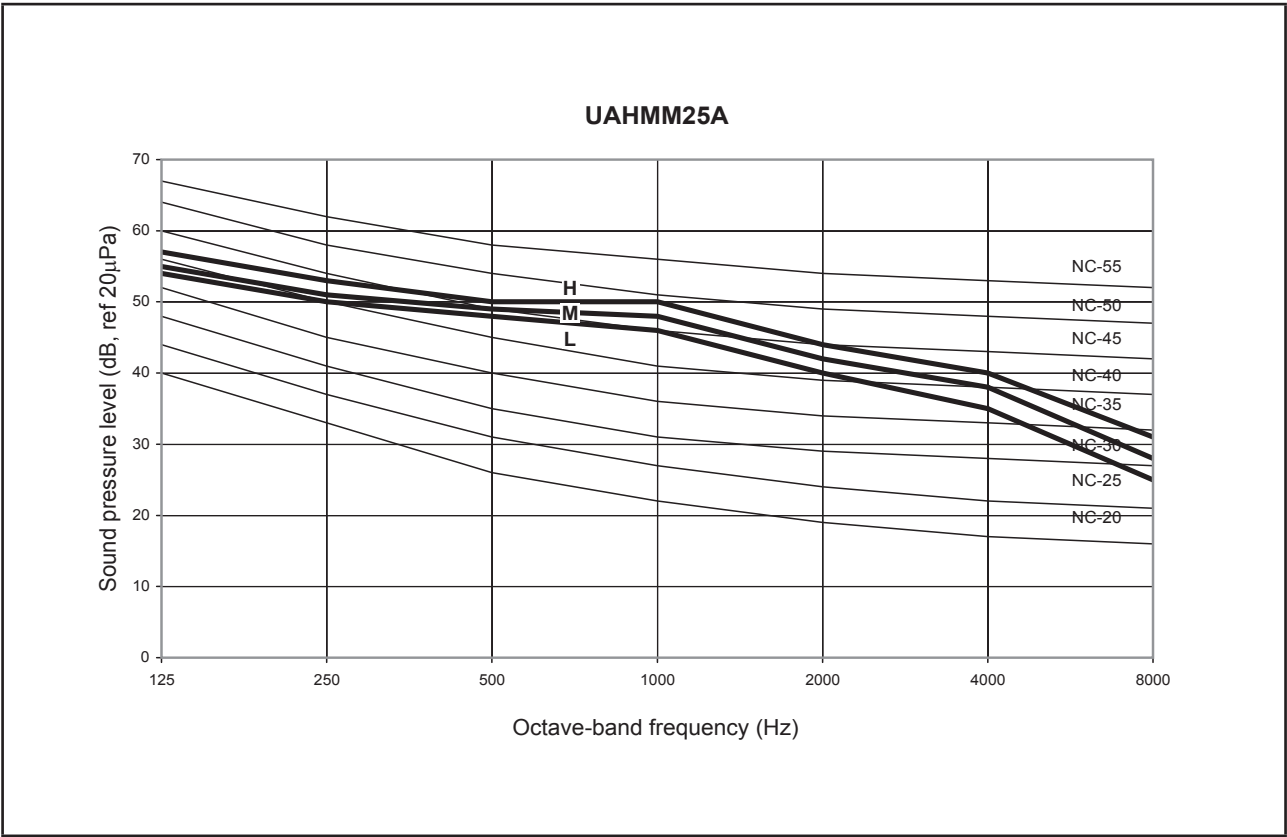


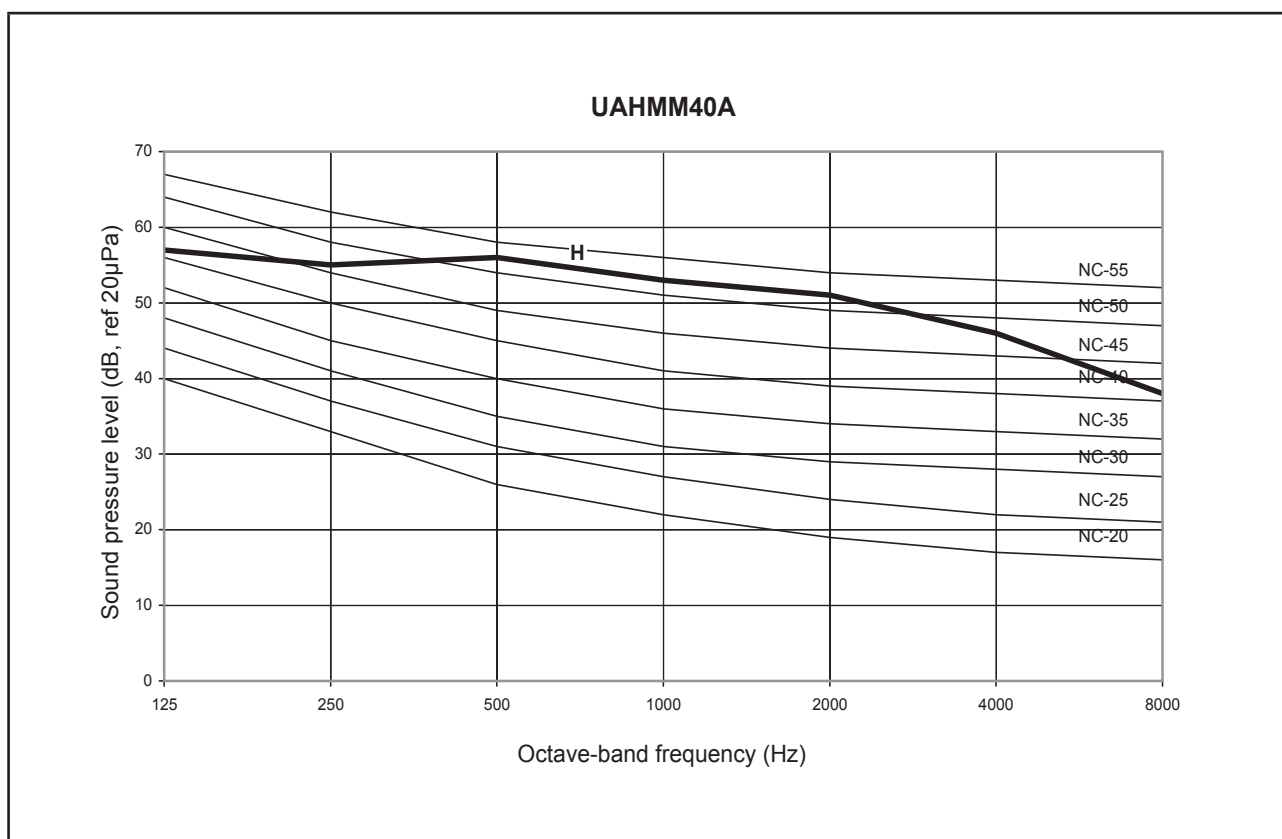
FWPMM11A





FWPMM16A**UAHMM20A**





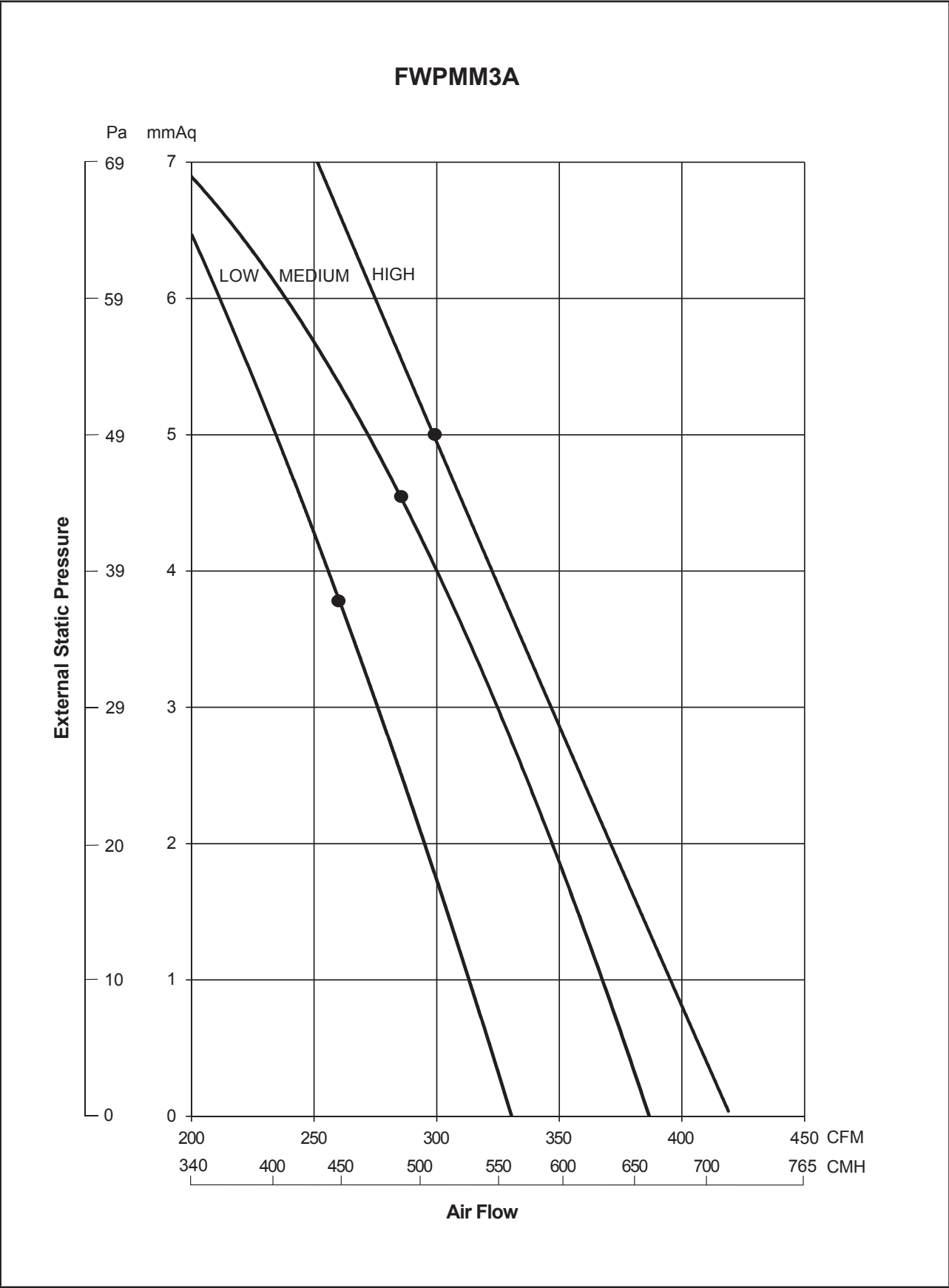
Selection Process

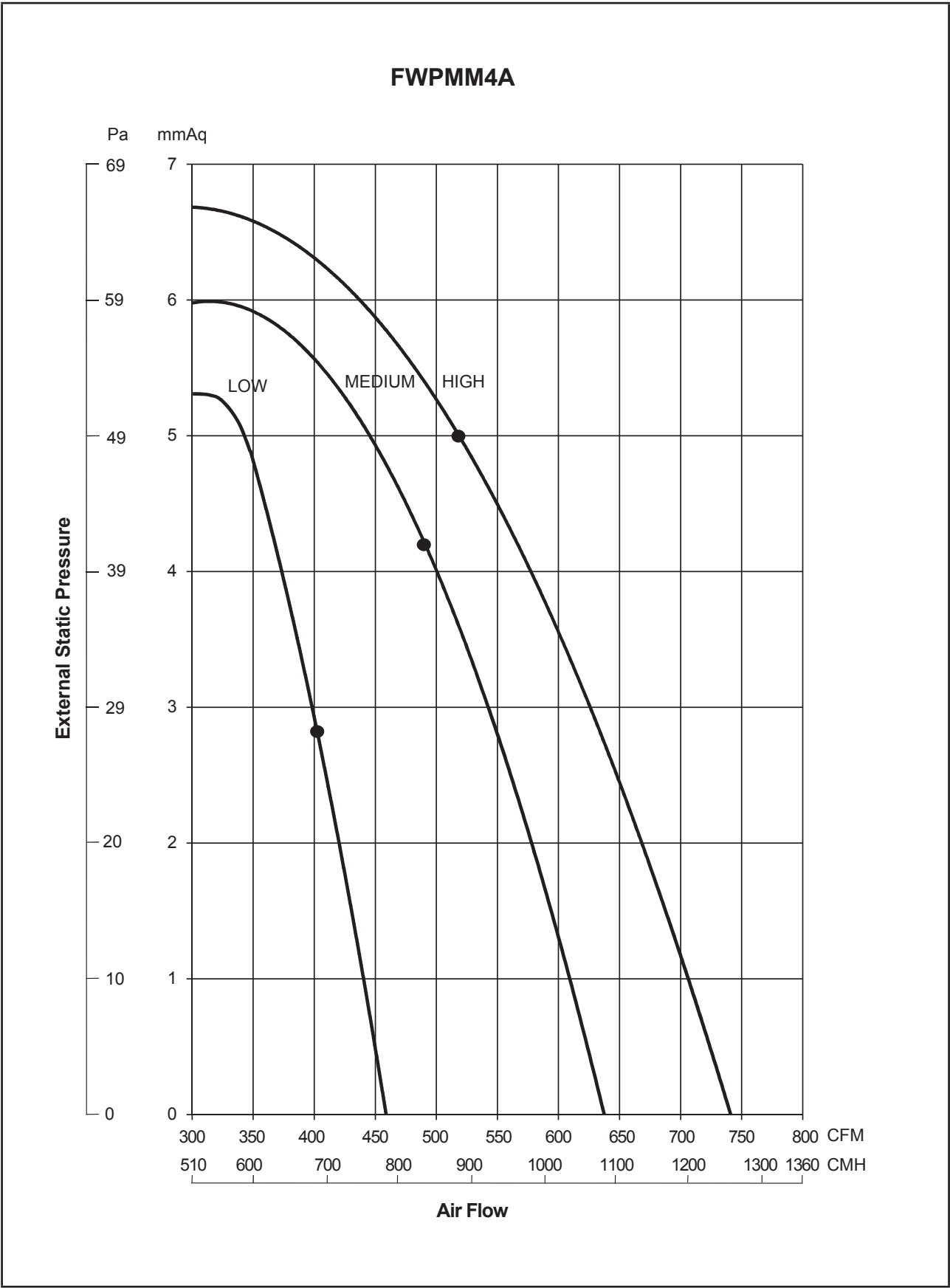
The following table summarizes the pulley data, motor size used for the UAHMM series, as manufactured:

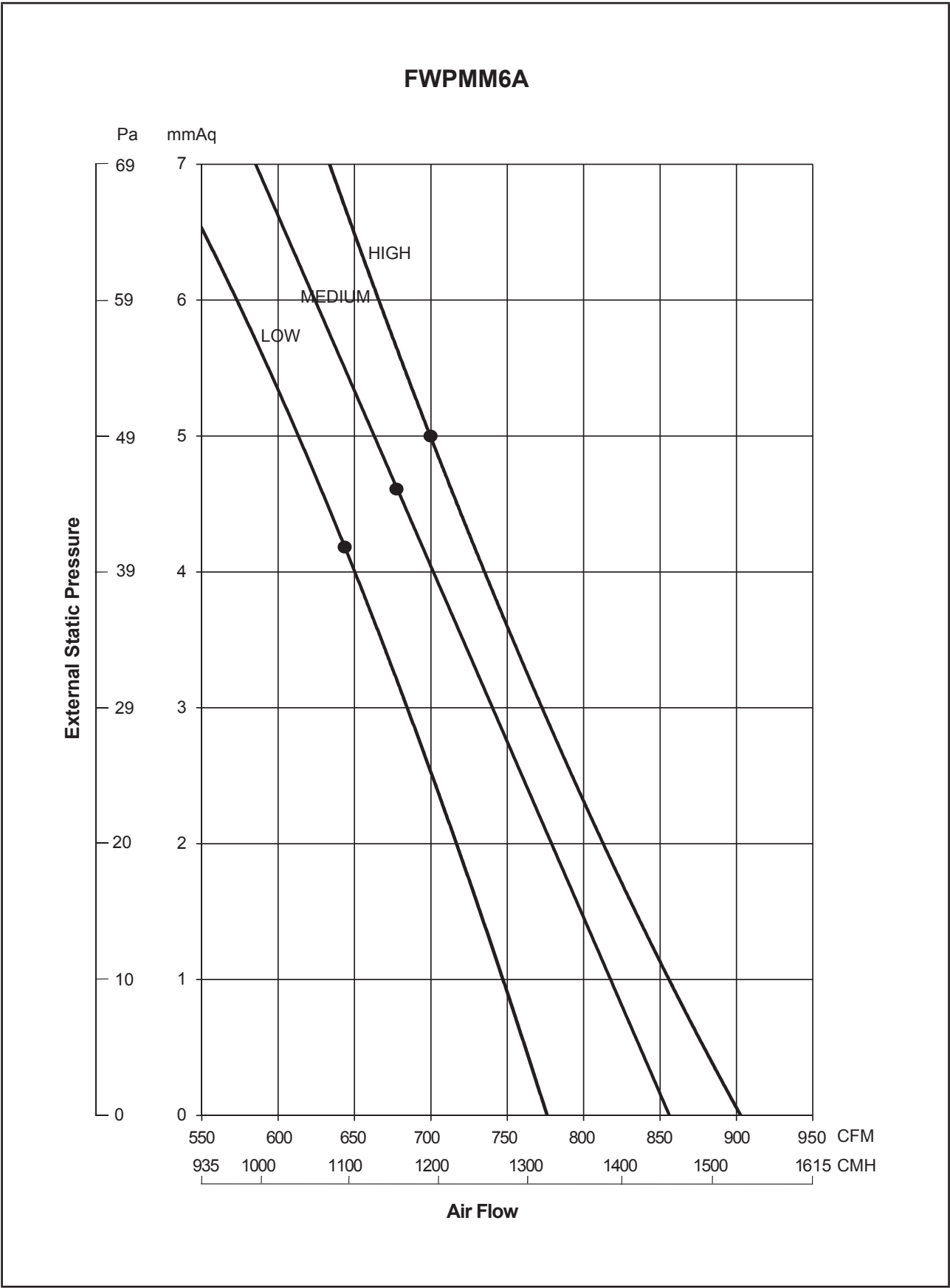
Model	Pulley Center Distance, C		Motor, kW	Motor RPM	Motor Pulley Diameter, Dm	Blower Pulley, Db
	Horizontal	Vertical			Taper #	Taper #
	(mm)	(mm)			(mm)	(mm)
UAHMM30A	340	350	1.5	1500	80	150
UAHMM40A	320	N/A	2.2	1500	80	160

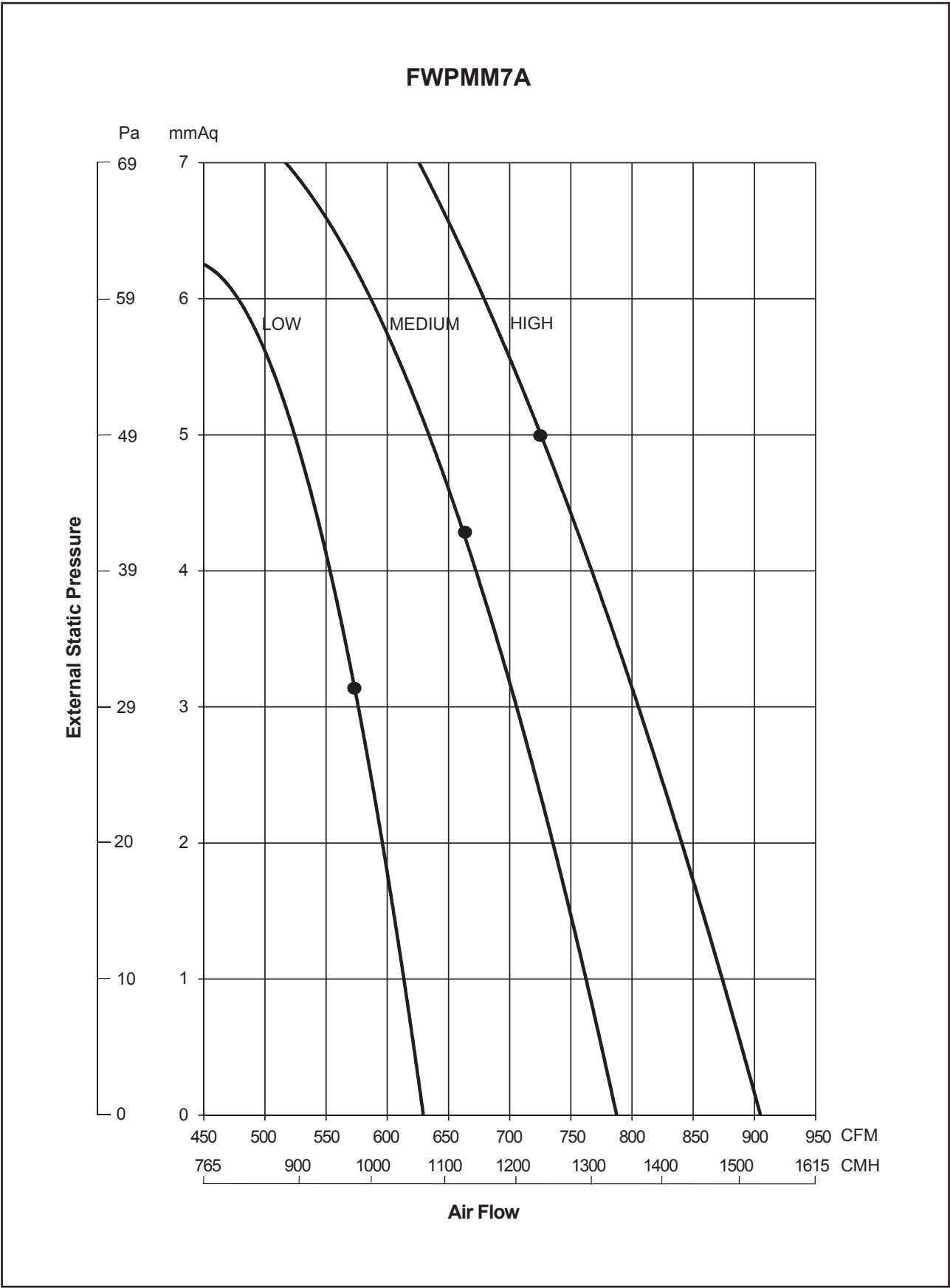
Fan Performance Chart

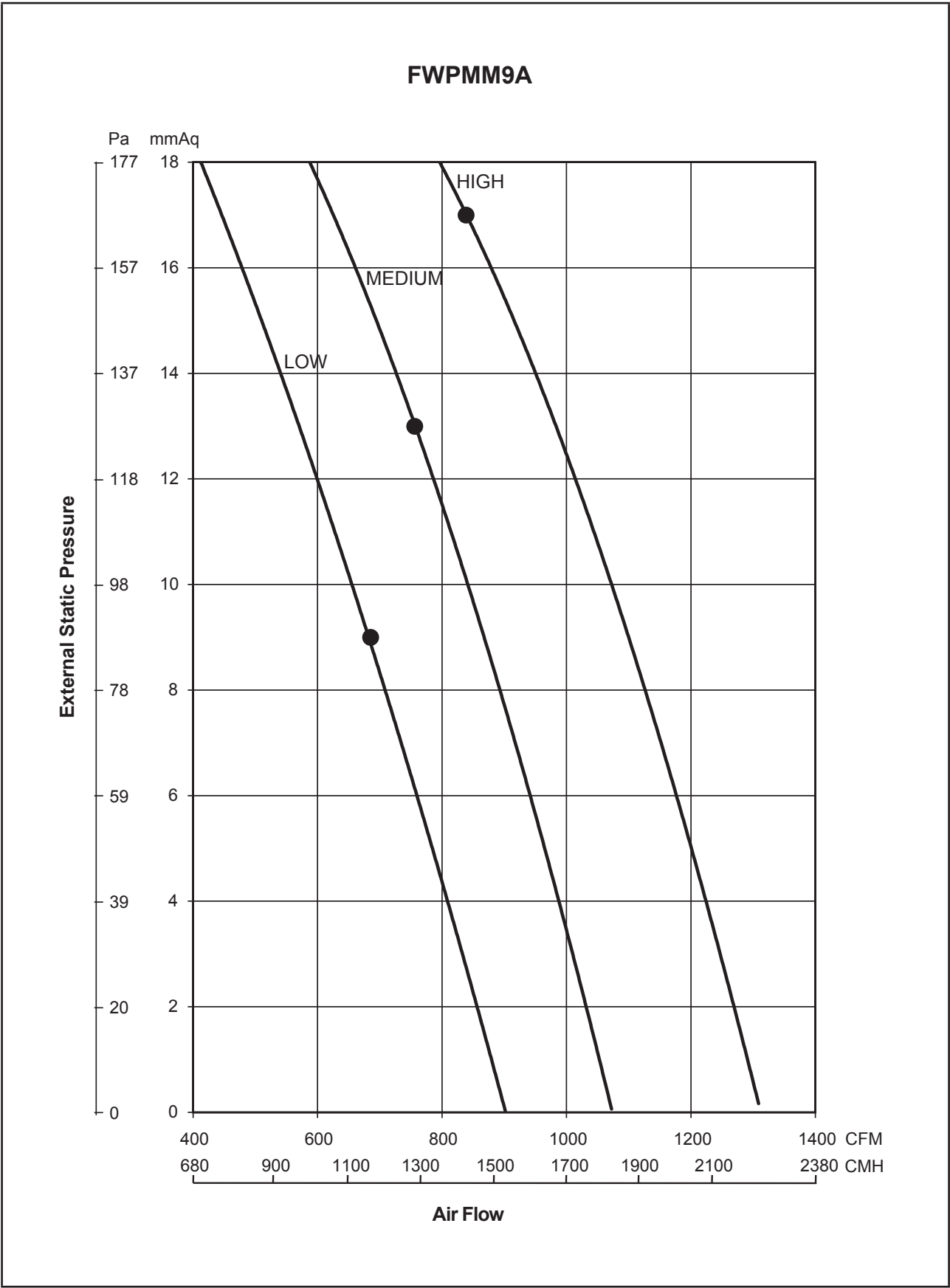
Fan Performance Curve

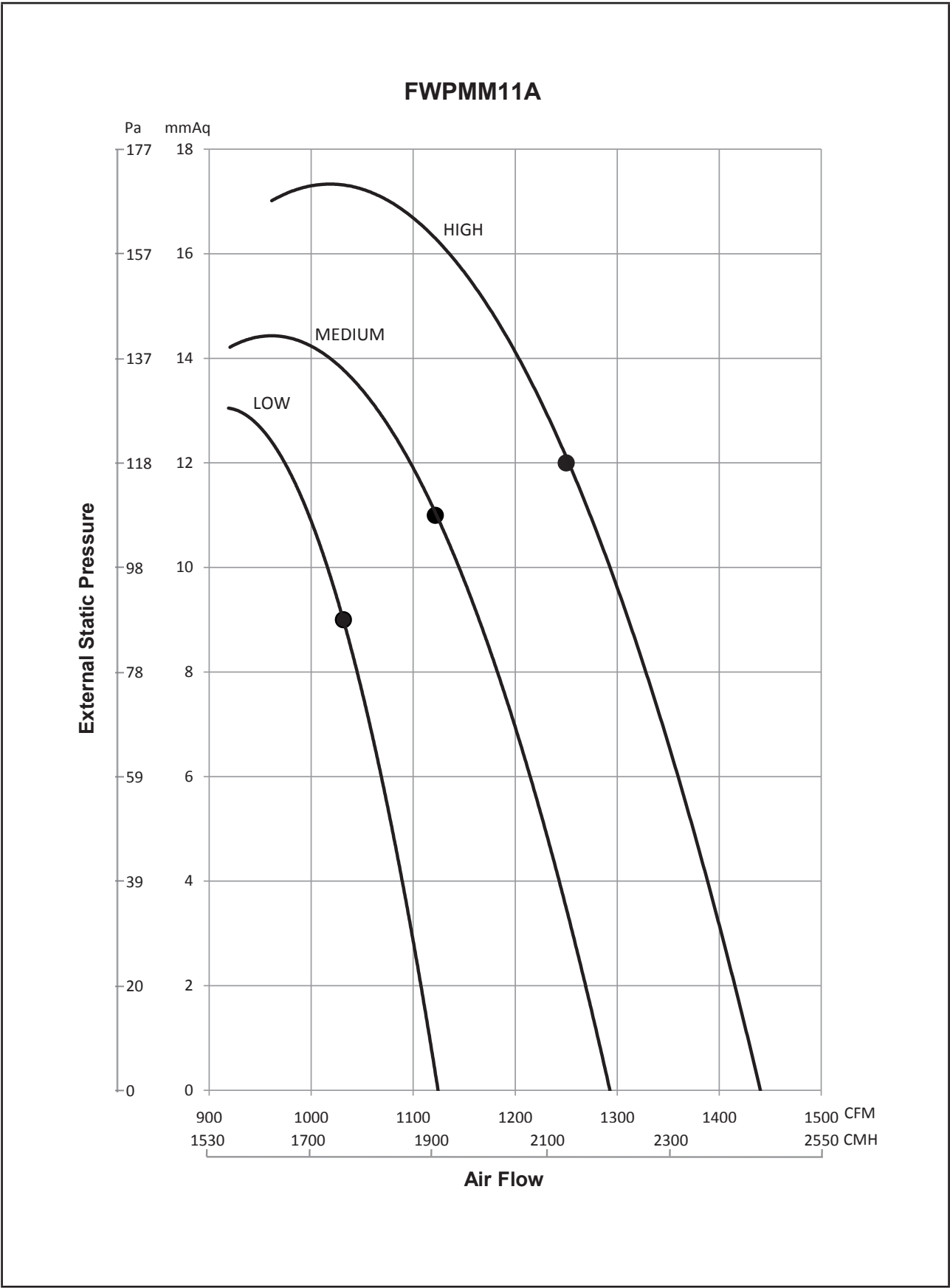




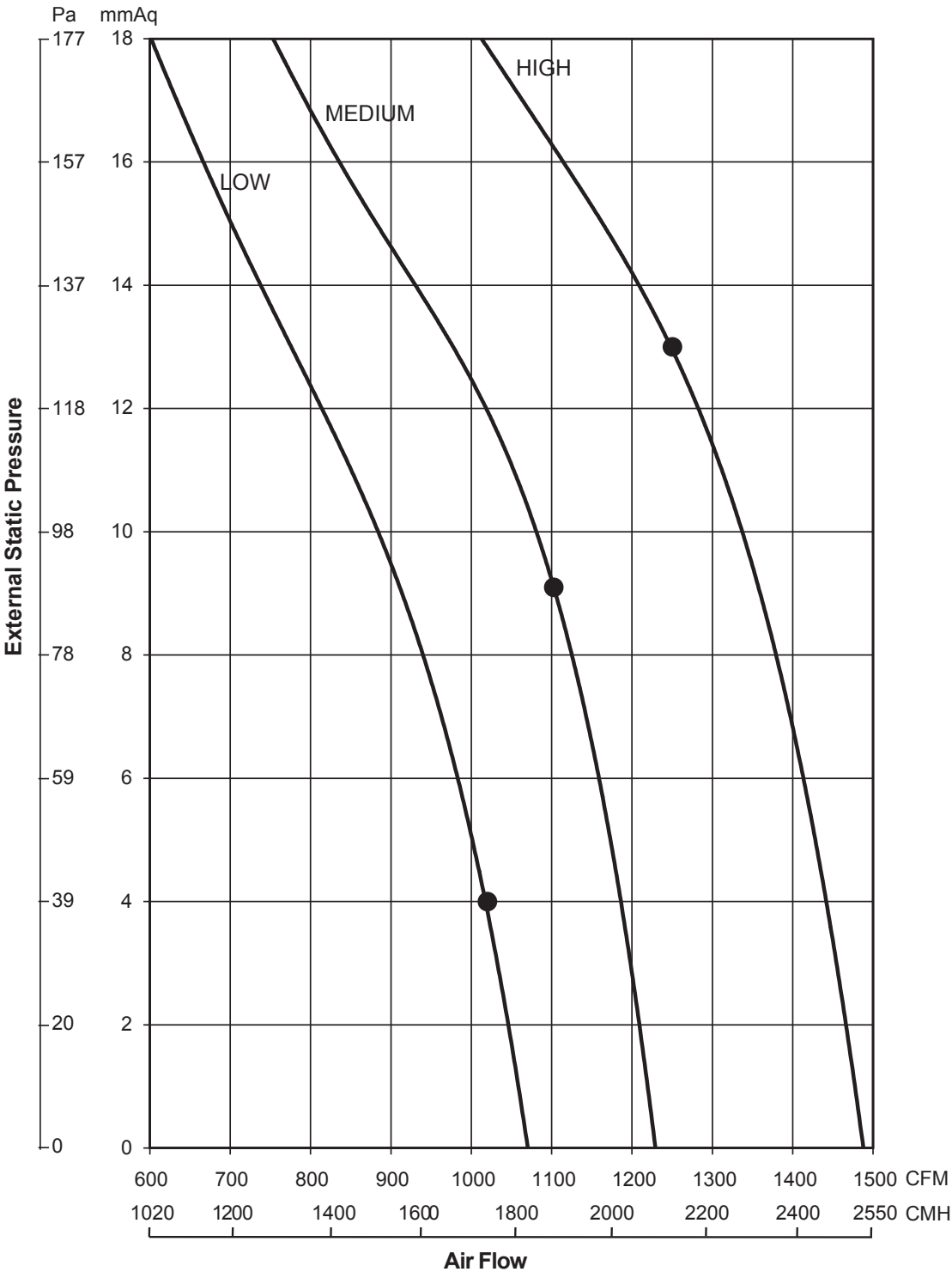


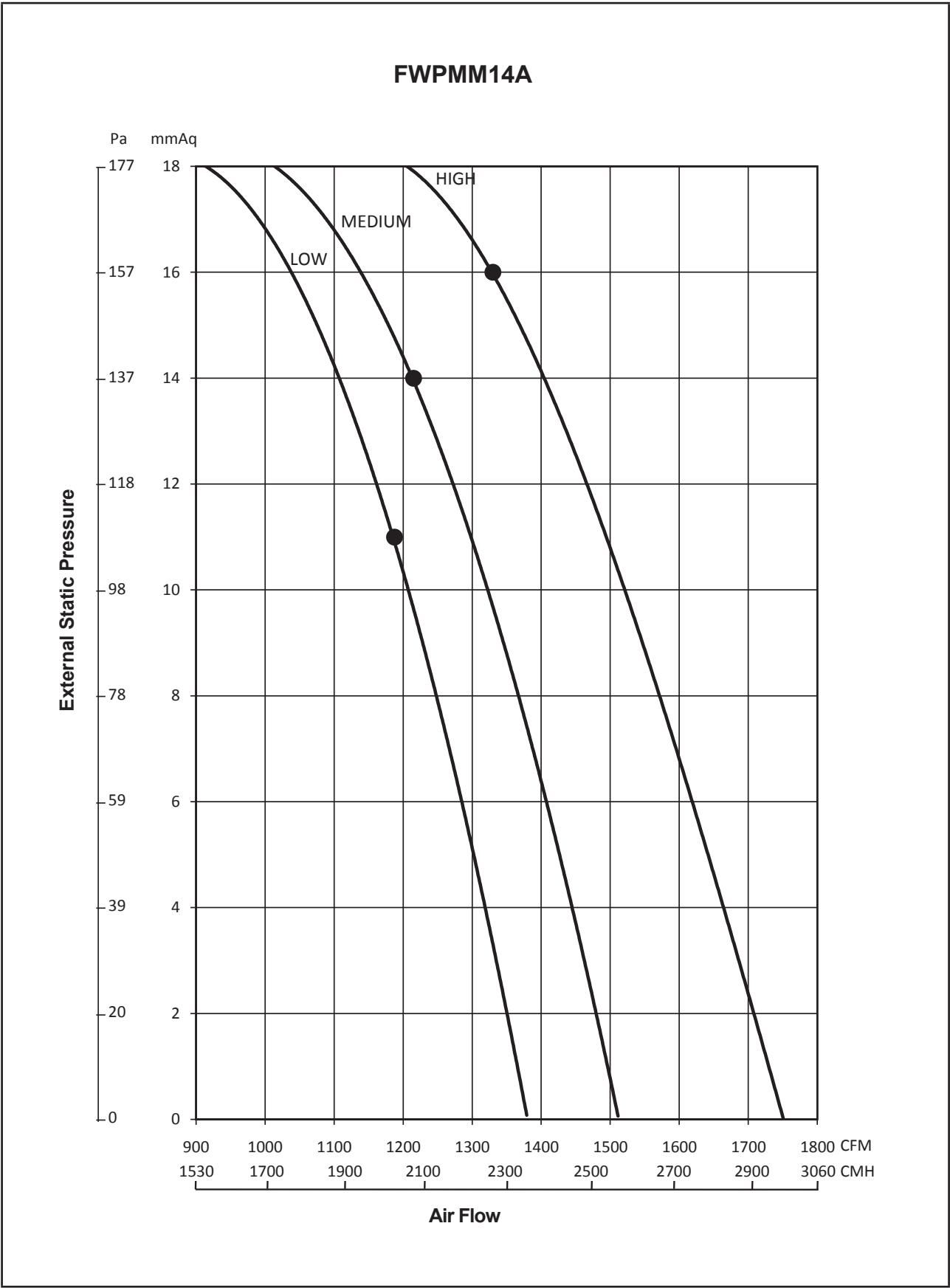


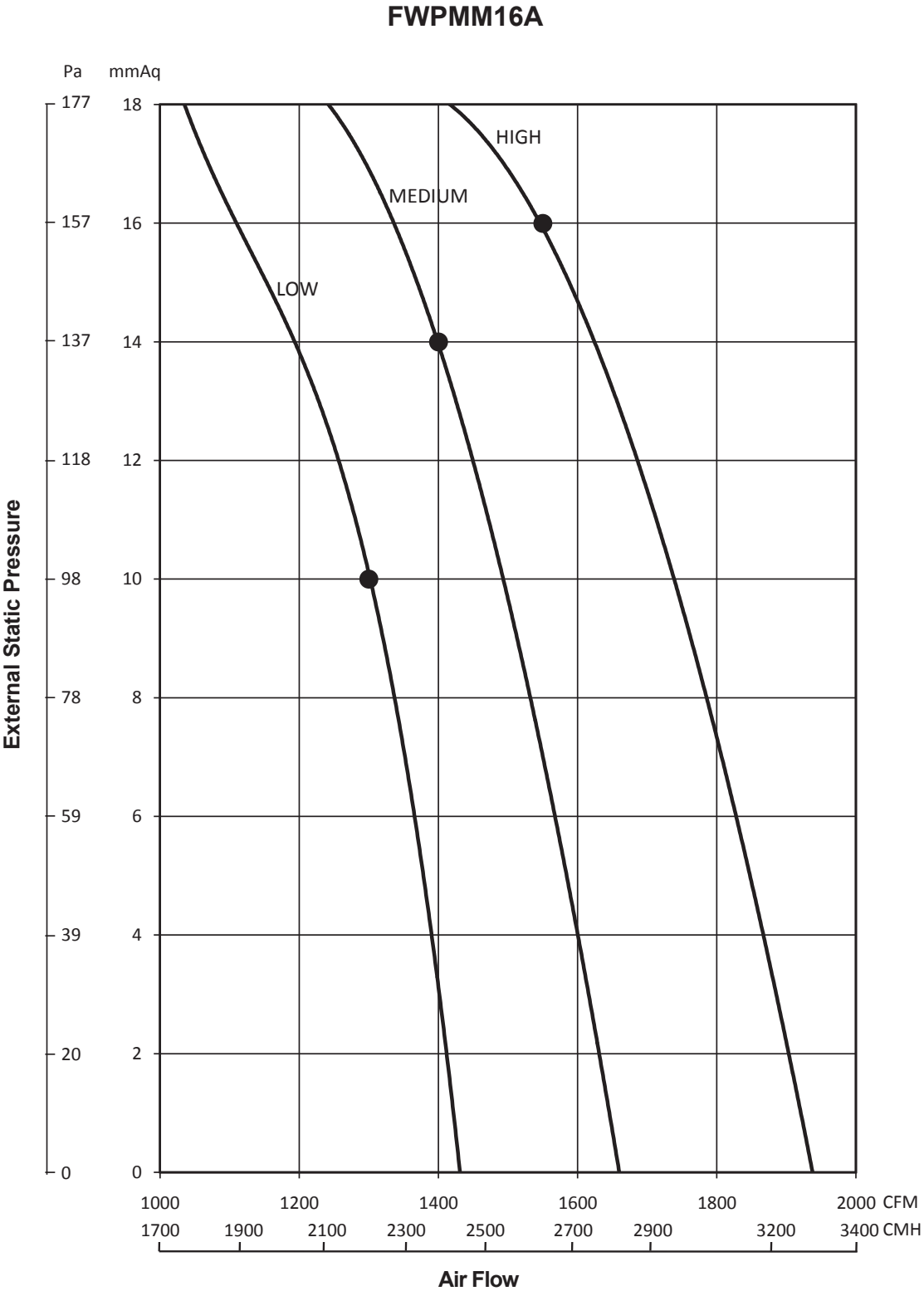


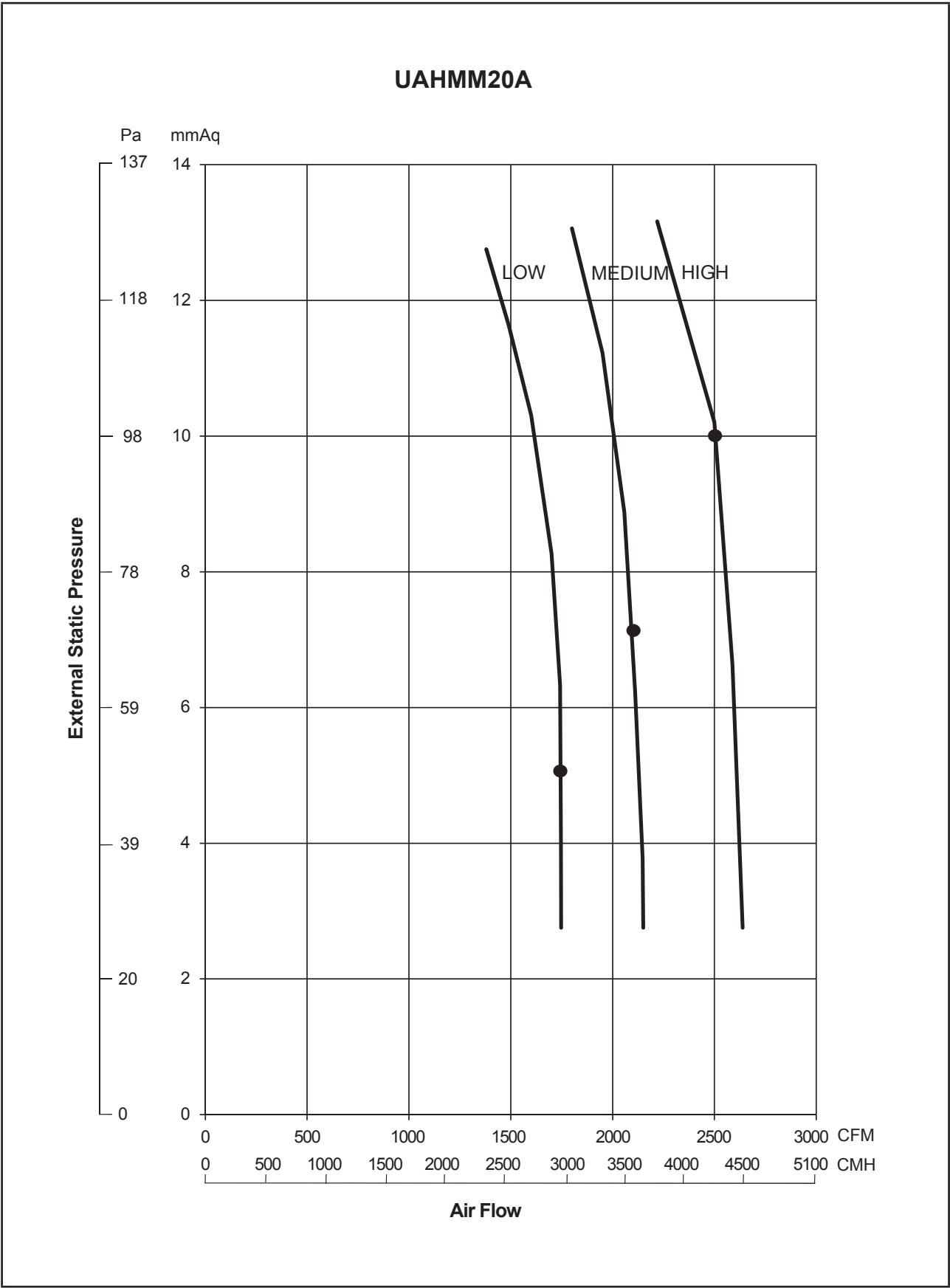


FWPMM12A

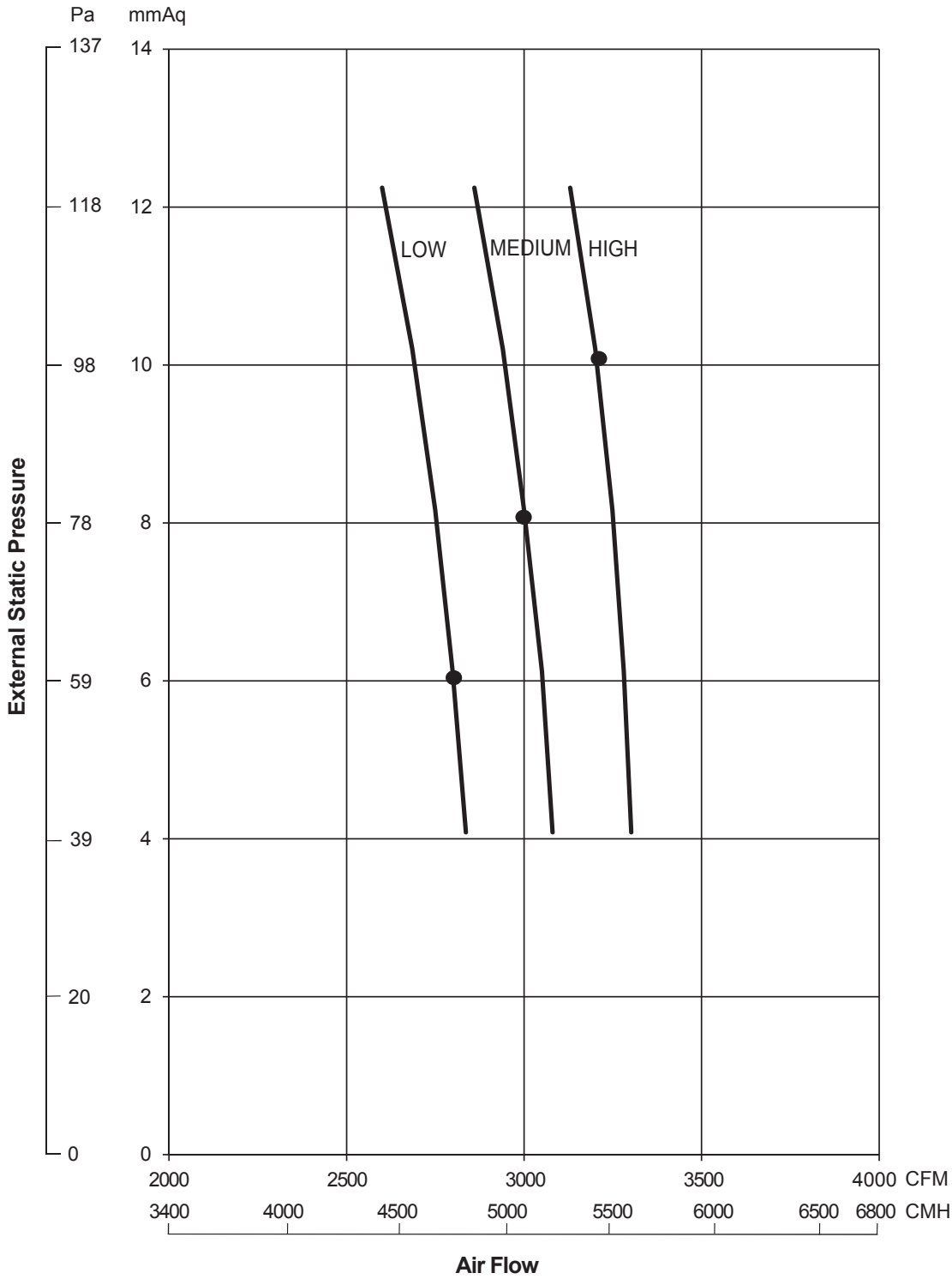


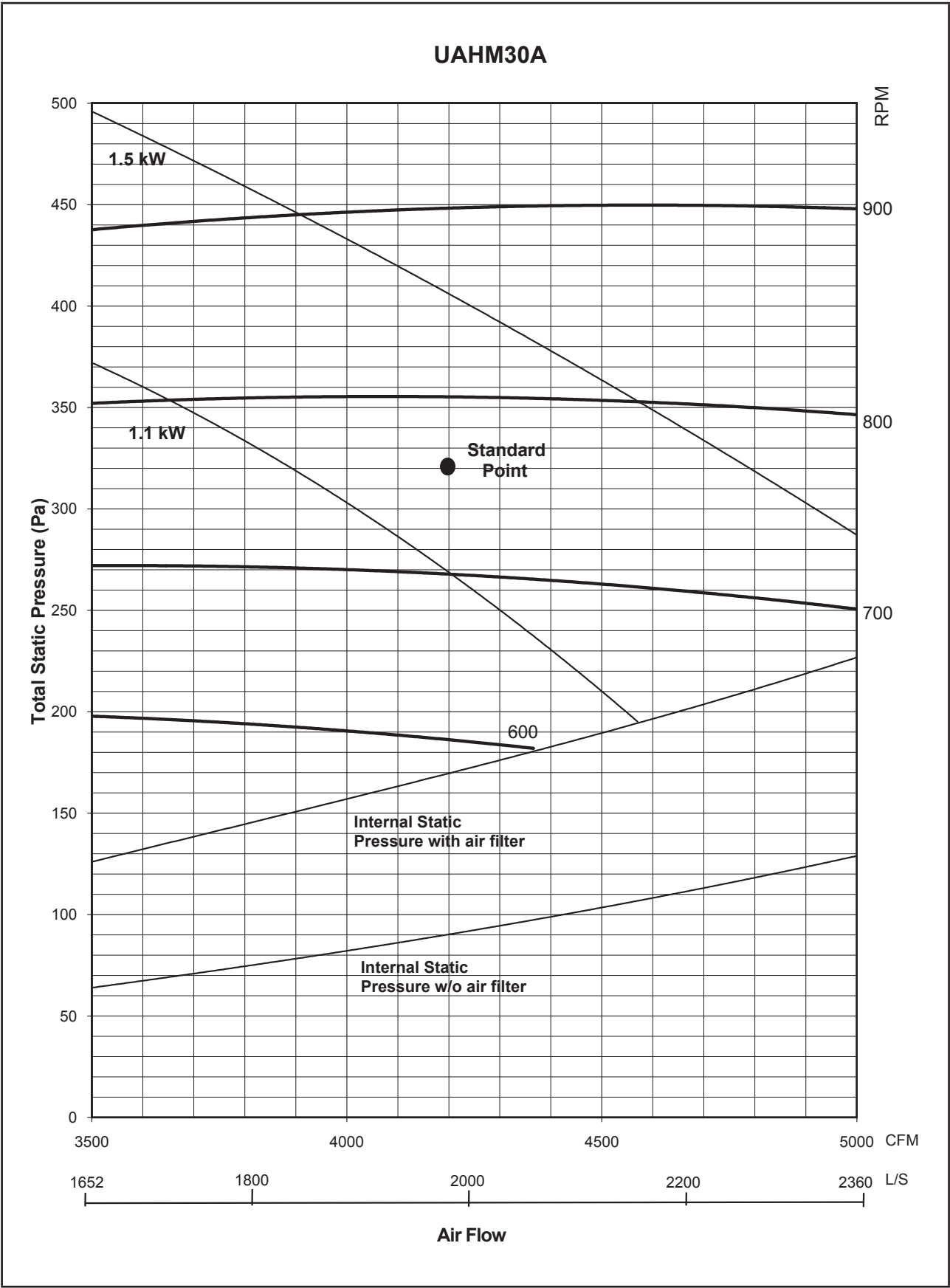


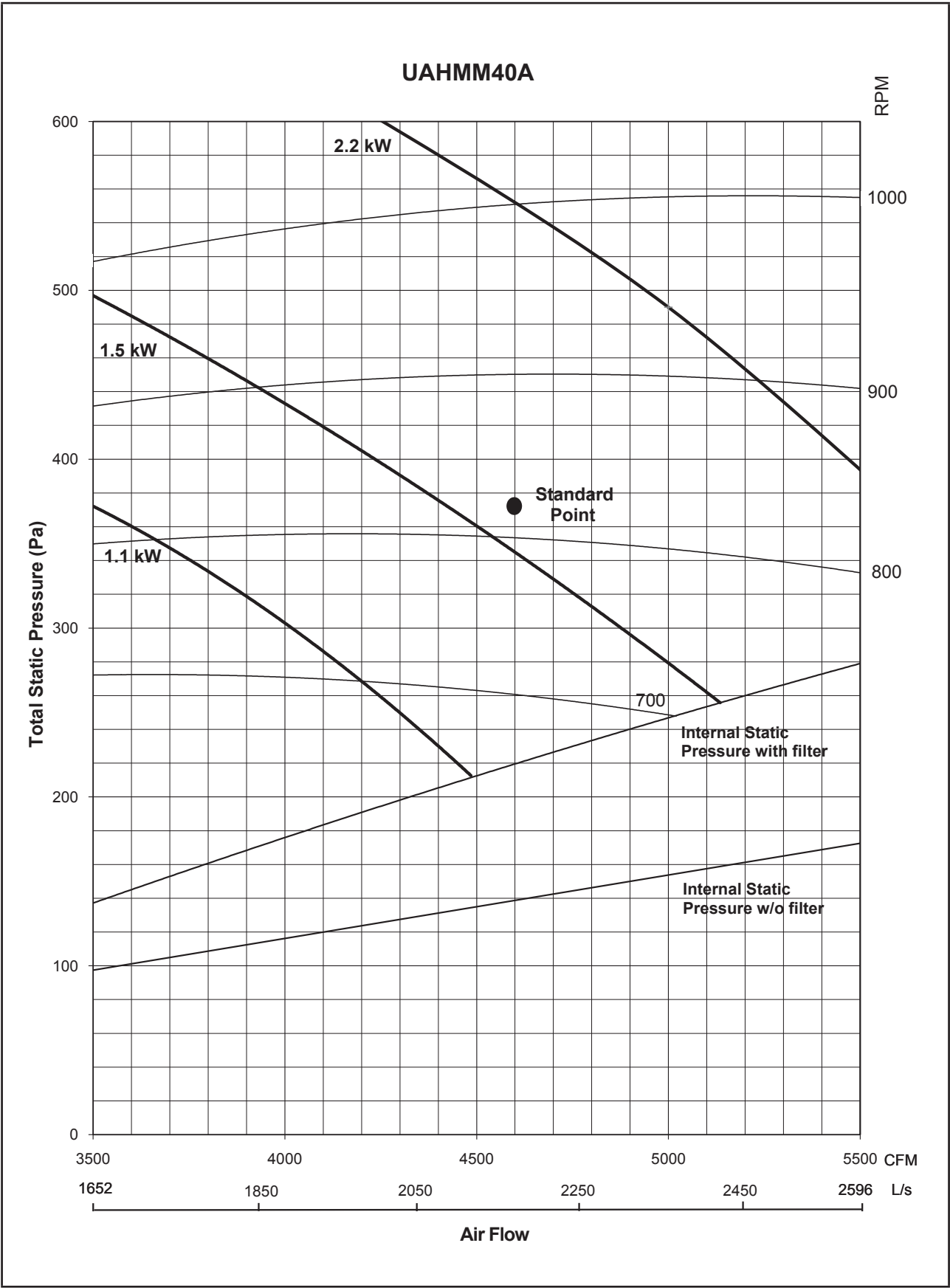




UAHMM25A







Engineering & Physical Data

Engineering Data - Chilled Water Fan Coil Unit

MODEL				FWMT02CV1	FWMT03CV1	FWMT04CV1	FWMT05CV1	FWMT06CV1		
NOMINAL COOLING CAPACITY		Btu/h		8300	9200	11300	15500	18000		
		W		2430	2700	3310	4540	5280		
NOMINAL SENSIBLE COOLING CAPACITY		Btu/h		6300	6900	9000	11700	14000		
		W		1850	2020	2640	3430	4100		
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)		Btu/h		11000	12000	15000	20500	25000		
		W		3220	3520	4400	6010	7330		
NOMINAL TOTAL INPUT POWER		W		31	32	42	57	72		
NOMINAL RUNNING CURRENT		A		0.20	0.20	0.21	0.30	0.34		
POWER SOURCE		V/Ph/Hz		220-240 / 1 / 50						
REFRIGERANT TYPE				N/A						
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION		AUTOMATIC LOUVER (UP & DOWN)						
	AIR FLOW	HIGH		CFM	260	280	370	510	620	
		MEDIUM		CFM	230	250	320	450	520	
		LOW		CFM	200	220	260	390	460	
		QUIET		CFM	180	190	240	360	440	
	NOMINAL WATER FLOW RATE		USGPM	1.85	2.03	2.51	3.43	4.01		
			litres/min	7.00	7.68	9.50	13.00	15.18		
	HEAD LOSS (COOLING)		kPa	34.0	24.0	31.0	30.0	36.0		
	HEAD LOSS (HEATING) : 50°C		kPa	29.0	20.0	25.0	27.0	33.0		
	MAX. WORKING PRESSURE		kPa	1608						
	SURFACE AIR VELOCITY		m/s	0.68	0.74	0.97	0.83	1.01		
	SOUND PRESSURE LEVEL (H/M/L)		dBa	34 / 29 / 25 / 24	35 / 30 / 25 / 24	42 / 39 / 32 / 29	42 / 38 / 34 / 32	46 / 42 / 39 / 37		
	UNIT DIMENSION		H X W X D	mm		288 X 800 X 206		310 X 1065 X 224		
	PACKING DIMENSION		H X W X D	mm		344 x 874 x 274		386 X 1136 X 314		
	UNIT WEIGHT		kg	9				14		
	CONDENSATE DRAIN SIZE		mm	19.05						
	PIPE CONNECTION		mm	12.70						
	FAN	TYPE		CROSS FLOW FAN						
		DRIVE		DIRECT						
		FAN SPEED	HIGH	RPM	1030	1050	1310	1035	1250	
			MEDIUM	RPM	890	910	1150	920	1070	
			LOW	RPM	760	780	955	825	970	
		FAN EFFICIENCY	HIGH	%	26.70	24.20	21.00	21.60	20.90	
			MEDIUM	%	25.30	22.70	22.10	21.70	22.20	
			LOW	%	24.80	21.60	22.80	23.10	22.80	
	FAN MOTOR	TYPE		INDUCTION						
		INDEX OF PROTECTION (IP)		IP20			IP44			
		INSULATION GRADE		E						
		RATED INPUT POWER	HIGH	W	31	32	42	57	72	
			MEDIUM	W	29	31	37	50	68	
			LOW	W	25	29	33	43	60	
		RATED RUNNING CURRENT	HIGH	A	0.20	0.20	0.21	0.30	0.34	
			MEDIUM	A	0.19	0.20	0.20	0.29	0.32	
			LOW	A	0.17	0.19	0.19	0.26	0.31	
		STARTING CURRENT		A	0.40	0.40	0.40	0.30	0.43	
		MOTOR OUTPUT		W	18	18	18	26	30	
		MOTOR EFFICIENCY	HIGH	%	27.40	29.00	44.00	36.50	48.00	
			MEDIUM	%	19.30	21.00	36.00	29.00	36.00	
			LOW	%	13.00	15.00	22.50	24.00	29.00	
	COIL	POLES		4						
		TUBE	MATERIAL		COPPER					
			DIAMETER		7.00					
		FIN	MATERIAL		ALUMINIUM					
			FACE AREA		0.18	0.18	0.18	0.29	0.29	
	AIR QUALITY	FILTER	ROW		2					
			WATER VOLUME		litre	0.52	0.58	0.58	0.95	0.95
			TYPE		WASHABLE SARANET FILTER					
			QUANTITY		2					
	CASING				pc					
		COLOUR		WHITE						

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System) 70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL				FWMJCC2BV1		FWMJCC4BV1		FWMJCC5BV1					
NOMINAL COOLING CAPACITY				Btu/h		8500		14000		15500			
				W		2490		4100		4540			
NOMINAL SENSIBLE COOLING CAPACITY				Btu/h		6500		10000		11500			
				W		1910		2930		3370			
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)				Btu/h		12000		16000		18000			
				W		3520		4690		5280			
NOMINAL TOTAL INPUT POWER				W		63		64		79			
NOMINAL RUNNING CURRENT				A		0.28		0.28		0.35			
POWER SOURCE				V/Ph/Hz		220-240 / 1 / 50							
REFRIGERANT TYPE				N/A									
INDOOR UNIT	CONTROL		AIR DISCHARGE OPERATION		4 WAY AUTOMATIC LOUVER (UP & DOWN)								
	AIR FLOW		HIGH		CFM		380		400		440		
			MEDIUM		CFM		290		310		330		
			LOW		CFM		230		220		280		
	NOMINAL WATER FLOW RATE			USGPM		2.03		3.43		3.57			
				litres/min		7.68		12.98		13.51			
	HEAD LOSS (COOLING)			kPa		19.3		26.9		28.8			
	HEAD LOSS (HEATING) : 50°C			kPa		16.8		23.9		26.5			
	MAX. WORKING PRESSURE			kPa		1608							
	SURFACE AIR VELOCITY			m/s		0.75		0.76		0.83			
	SOUND PRESSURE LEVEL (H/M/L)			dBA		42 / 35 / 29		45 / 38 / 30		48 / 40 / 36			
	UNIT DIMENSION - () WITH PANEL		H X W X D		mm		250 X 570 X 570 (295 X 640 X 640)						
	PACKING DIMENSION - () PANEL		H X W X D		mm		316 X 630 X 630 (126 X 700 X 726)						
	UNIT WEIGHT				kg		15 + 3		17 + 3		17 + 3		
	CONDENSATE DRAIN SIZE				mm		19.05						
	PIPE CONNECTION				mm		19.05						
	FAN	TYPE			TURBO FAN								
		DRIVE			DIRECT								
		FAN SPEED		HIGH		RPM		725		810		900	
				MEDIUM		RPM		565		630		700	
				LOW		RPM		460		480		610	
		FAN EFFICIENCY		HIGH		%		38.30		46.90		25.90	
				MEDIUM		%		35.10		45.40		32.30	
				LOW		%		46.70		46.10		21.50	
	FAN MOTOR	TYPE			INDUCTION								
		INDEX OF PROTECTION (IP)			IP20								
		INSULATION GRADE			B								
		RATED INPUT POWER		HIGH		W		63		64		79	
MEDIUM				W		51		58		73			
LOW				W		46		52		69			
RATED RUNNING CURRENT		HIGH		A		0.28		0.28		0.35			
		MEDIUM		A		0.23		0.25		0.32			
		LOW		A		0.21		0.24		0.31			
STARTING CURRENT			A		0.32		0.30		0.47				
MOTOR OUTPUT			W		17		23		28				
MOTOR EFFICIENCY		HIGH		%		32.20		44.50		49.20			
		MEDIUM		%		20.50		23.60		24.00			
		LOW		%		12.30		11.20		14.80			
POLES			6										
COIL	TUBE		MATERIAL		COPPER								
			DIAMETER		mm		7.00						
	FIN		MATERIAL		ALUMINIUM								
			FACE AREA		m²		0.24		0.25		0.25		
	ROW					1		2		2			
WATER VOLUME			litre		0.43		0.83		0.83				
AIR QUALITY		FILTER		TYPE		WASHABLE SARANET FILTER							
				QUANTITY		1							
CASING				COLOUR		LIGHT GREY							

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System)
		70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL				FWMJC6BV1	FWMJC8BV1	FWMJC9BV1	FWMJC11BV1	FWMJC13BV1	
NOMINAL COOLING CAPACITY			Btu/h	21000	25000	30000	38000	43000	
			W	6150	7330	8790	11140	12600	
NOMINAL SENSIBLE COOLING CAPACITY			Btu/h	16700	19200	22300	27400	31000	
			W	4890	5630	6540	8030	9090	
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)			Btu/h	28000	33600	38300	45500	52000	
			W	8210	9850	11230	13340	15240	
NOMINAL TOTAL INPUT POWER			W	95	126	167	186	227	
NOMINAL RUNNING CURRENT			A	0.44	0.55	0.74	0.85	1.03	
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50					
REFRIGERANT TYPE				N/A					
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION		4 WAY AUTOMATIC LOUVER (UP & DOWN)					
				LCD WIRELESS MICRO-COMPUTER REMOTE CONTROL					
	AIR FLOW	HIGH	CFM	750	860	890	1000	1140	
		MEDIUM	CFM	620	700	720	840	1000	
		LOW	CFM	480	540	570	680	840	
		QUIET	CFM	320	380	420	540	700	
	NOMINAL WATER FLOW RATE		USGPM	4.71	5.59	6.69	8.45	9.60	
			litres/min	17.83	21.17	25.29	31.94	36.29	
	HEAD LOSS (COOLING)		kPa	20	37	22	44	53	
	HEAD LOSS (HEATING) : 50°C		kPa	19	33	19	38	47	
	MAX. WORKING PRESSURE		kPa	1600					
	SURFACE AIR VELOCITY		m/s	0.91	1.04	1.14	1.03	1.17	
	SOUND PRESSURE LEVEL (H/M/L/Q)		dBA	42 / 38 / 32 / 23	46 / 42 / 35 / 27	48 / 43 / 38 / 30	50 / 47 / 43 / 33	52 / 49 / 45 / 39	
	UNIT DIMENSION - () WITH PANEL		H X W X D	265 X 820 X 820 (340 X 990 X 990)					
	PACKING DIMENSION - () PANEL		H X W X D	341 X 916 X 916 (125 X 1020 X 1020)					
	UNIT WEIGHT (UNIT + PANEL)		kg	26 + 4	26 + 4	28 + 4	32 + 4	32 + 4	
	CONDENSATE DRAIN SIZE		mm	19.05					
	PIPE CONNECTION		mm	19.05					
	FAN	TYPE		TURBO FAN					
		DRIVE		DIRECT					
		FAN SPEED	HIGH	RPM	530	600	660	710	800
			MEDIUM	RPM	450	500	550	610	710
			LOW	RPM	360	400	450	510	610
	FAN MOTOR	TYPE		INDUCTION					
INDEX OF PROTECTION (IP)		IP20							
INSULATION GRADE		B							
RATED INPUT POWER		HIGH	W	95	126	167	186	227	
		MEDIUM	W	79	103	109	151	176	
		LOW	W	67	89	86	118	144	
RATED RUNNING CURRENT		HIGH	A	0.44	0.55	0.74	0.85	1.03	
		MEDIUM	A	0.40	0.45	0.49	0.71	0.82	
		LOW	A	0.36	0.39	0.39	0.57	0.69	
STARTING CURRENT		A	0.44	0.71	0.89	1.02	1.28		
MOTOR OUTPUT		W	30	45	65	80	110		
COIL	POLES		8						
	TUBE	MATERIAL		COPPER					
		DIAMETER		7.00					
	FIN	MATERIAL		ALUMINIUM					
		FACE AREA		0.39					
	ROW		m²		0.39				
AIR QUALITY CASING	FILTER	TYPE		WASHABLE SARANET FILTER					
		QUANTITY		1					
		pc		LIGHT GREY					
		COLOUR							

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System)
		70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL			FWKE05E				FWKE08E						
			HIGH	MEDIUM	LOW	QUIET	HIGH	MEDIUM	LOW	QUIET			
NOMINAL COOLING CAPACITY			Btu/h	20100	15900	11900	8200	30000	24700	19800	15200		
			W	5900	4650	3500	2400	8800	7250	5800	4550		
NOMINAL SENSIBLE COOLING CAPACITY			Btu/h	15400	11700	8700	5800	21900	18500	14500	11000		
			W	4510	3440	2540	1710	6430	5410	4260	3220		
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)			Btu/h	24200	19800	15200	11300	38200	30400	23900	18400		
			W	7100	5800	4450	3300	11200	8900	7000	5400		
NOMINAL TOTAL INPUT POWER			W	37	19	12	7	90	50	26	17		
NOMINAL RUNNING CURRENT			A	0.26	0.19	0.13	0.11	0.74	0.43	0.28	0.19		
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50									
REFRIGERANT TYPE			N/A										
INDOOR UNIT	CONTROL		AIR DISCHARGE OPERATION		4 WAY AUTOMATIC LOUVER (UP & DOWN) LCD WIRELESS MICRO-COMPUTER REMOTE CONTROL								
	AIR FLOW		CFM	620	470	350	220	890	720	560	420		
	NOMINAL WATER FLOW RATE		USGPM	4.52	3.56	2.68	1.84	6.74	5.55	4.44	3.41		
			litres/min	17.10	13.48	10.15	6.96	25.51	21.02	16.81	12.90		
	HEAD LOSS (COOLING)		kPa	24	15	10	5	20	14	9	7		
	HEAD LOSS (HEATING) : 50°C		kPa	21	13	8	4	18	12	8	5		
	MAX. WORKING PRESSURE		kPa	1608									
	SURFACE AIR VELOCITY		m/s	0.64	0.60	0.42	0.27	0.81	0.68	0.55	0.43		
	SOUND PRESSURE LEVEL (H/M/L)		dBA	37	31	23	16	47	42	37	31		
	UNIT DIMENSION - () WITH PANEL		H X W X D	mm 265 X 820 X 820 (340 X 990 X 990)									
	PACKING DIMENSION - () PANEL		H X W X D	mm 341 X 916 X 916 (125 X 1020 X 1020)									
	UNIT WEIGHT (UNIT + PANEL)		kg	26 + 4				28 + 4					
	CONDENSATE DRAIN SIZE		mm	19.05									
	PIPE CONNECTION		mm	19.05									
	FAN		TYPE		TURBO FAN								
			DRIVE		DIRECT								
			FAN SPEED		RPM	450	360	280	200	660	550	440	350
			FAN EFFICIENCY		%	50.3	51.3	37.4	22.0	51.9	52.6	49.6	40.5
	FAN MOTOR		TYPE		BLDC								
			INDEX OF PROTECTION (IP)		IP20								
			INSULATION GRADE		E								
			RATED INPUT POWER		W	37	19	12	7	90	50	26	17
			RATED RUNNING CURRENT		A	0.26	0.19	0.13	0.11	0.74	0.43	0.28	0.19
			STARTING CURRENT		A	1.5				2.2			
			MOTOR OUTPUT		W	70				70			
			MOTOR EFFICIENCY		%	70.0	70.0	70.0	70.0	75.0	75.0	75.0	75.0
COIL		POLES		8									
		TUBE	MATERIAL		COPPER								
			DIAMETER		7.00								
		FIN	MATERIAL		ALUMINIUM								
			FACE AREA		0.39				0.37				
		ROW		2				3					
WATER VOLUME		litre	1.36				1.97						
AIR QUALITY		FILTER	TYPE		WASHABLE SARANET FILTER								
			QUANTITY		1								
CASING			COLOUR	LIGHT GREY									

NOTE:

A) BASED ON EUROVENT CONDITIONS

B) ADDITIONAL 10W IS REQUIRED FOR CONDENSATE DRAIN PUMP

C) SOUND PRESSURE LEVEL IS TESTED AS PER JIS STANDARD AS BELOW:

FWKE05E MODEL - 1.4M BELOW THE FACE CENTER OF AIR RETURN OF THE UNIT

FWKE08/11E MODEL - 1.5M BELOW THE FACE CENTER OF AIR RETURN OF THE UNIT

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System)
		70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL				FWKE11E									
				HIGH	MEDIUM	LOW	QUIET						
NOMINAL COOLING CAPACITY				Btu/h	40100	33100	26800	21000					
				W	11750	9700	7850	6150					
NOMINAL SENSIBLE COOLING CAPACITY				Btu/h	28600	23800	18900	14600					
				W	8370	6970	5540	4270					
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)				Btu/h	46700	39100	31600	24100					
				W	13700	11450	9250	7050					
NOMINAL TOTAL INPUT POWER				W	120	83	39	23					
NOMINAL RUNNING CURRENT				A	0.95	0.55	0.35	0.21					
POWER SOURCE				V/Ph/Hz	220-240 / 1 / 50								
REFRIGERANT TYPE				N/A									
INDOOR UNIT	CONTROL	AIR DISCHARGE			4 WAY AUTOMATIC LOUVER (UP & DOWN)								
		OPERATION			LCD WIRELESS MICRO-COMPUTER REMOTE CONTROL								
	AIR FLOW			CFM	1060	870	680	510					
	NOMINAL WATER FLOW RATE			USGPM	9.00	7.43	6.01	4.71					
				litres/min	34.06	28.12	22.76	17.83					
	HEAD LOSS (COOLING)			kPa	41	30	22	15					
	HEAD LOSS (HEATING) : 50°C			kPa	37	26	20	12					
	MAX. WORKING PRESSURE			kPa	1608								
	SURFACE AIR VELOCITY			m/s	0.83	0.71	0.57	0.45					
	SOUND PRESSURE LEVEL (H/M/L)			dBA	51	46	41	34					
	UNIT DIMENSION - () WITH PANEL		H X W X D	mm	300 X 820 X 820 (375 X 990 X 990)								
	PACKING DIMENSION - () PANEL		H X W X D	mm	376 X 916 X 916 (125 X 1020 X 1020)								
	UNIT WEIGHT (UNIT + PANEL)			kg	32 + 4								
	CONDENSATE DRAIN SIZE			mm	19.05								
	PIPE CONNECTION			mm	19.05								
	FAN	TYPE			TURBO FAN								
		DRIVE			DIRECT								
		FAN SPEED			RPM	750	630	510	400				
		FAN EFFICIENCY			%	55.6	55.5	49.6	49.4				
	FAN MOTOR	TYPE			BLDC								
		INDEX OF PROTECTION (IP)			IP20								
		INSULATION GRADE			E								
		RATED INPUT POWER			W	120	83	39	23				
		RATED RUNNING CURRENT			A	0.95	0.55	0.35	0.21				
		STARTING CURRENT			A	2.2							
		MOTOR OUTPUT			W	100							
		MOTOR EFFICIENCY			%	75.0	75.0	75.0	75.0				
	COIL	POLES			8								
		TUBE	MATERIAL		COPPER								
			DIAMETER		mm	7.00							
		FIN	MATERIAL		ALUMINIUM								
			FACE AREA		m²	0.46							
	AIR QUALITY	ROW		3									
		WATER VOLUME		litre	2.35								
	CASING	FILTER	TYPE		WASHABLE SARANET FILTER								
			QUANTITY		pc	1							
					COLOUR	LIGHT GREY							

NOTE:

A) BASED ON EUROVENT CONDITIONS

B) ADDITIONAL 10W IS REQUIRED FOR CONDENSATE DRAIN PUMP

C) SOUND PRESSURE LEVEL IS TESTED AS PER JIS STANDARD AS BELOW:

FWKE05E MODEL - 1.4M BELOW THE FACE CENTER OF AIR RETURN OF THE UNIT

FWKE08/11E MODEL - 1.5M BELOW THE FACE CENTER OF AIR RETURN OF THE UNIT

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System) 70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL				FWPMM3A(Z)V1		FWPMM4A(Z)V1		FWPMM6A(Z)V1		FWPMM7A(Z)V1		FWPMM8A(Z)V1				
NOMINAL COOLING CAPACITY				Btu/h		9900		11600		18000		22500				
				W		2900		3400		5280		6590				
NOMINAL SENSIBLE COOLING CAPACITY				Btu/h		7000		8120		12600		15750				
				W		2050		2380		3690		4620				
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)				Btu/h		11500		15000		23000		29000				
				W		3370		4400		6740		8500				
NOMINAL TOTAL INPUT POWER				W		89		140		168		182				
NOMINAL RUNNING CURRENT				A		0.40		0.65		0.77		0.86				
POWER SOURCE				V/Ph/Hz		220-240 / 1 / 50										
REFRIGERANT TYPE						N/A										
INDOOR UNIT	CONTROL		AIR DISCHARGE OPERATION		DUCTED											
					WIRED REMOTE HANDSET											
	AIR FLOW		HIGH		CFM		300		510		700		730			
			MEDIUM		CFM		285		490		675		660			
			LOW		CFM		260		400		640		580			
	EXTERNAL STATIC PRESSURE				Pa		49 / 44 / 36		49 / 42 / 28		49 / 45 / 41		49 / 43 / 30			
	NOMINAL WATER FLOW RATE				USGPM		2.20		2.60		4.05		5.06			
					litres/min		8.33		9.84		15.33		19.15			
	HEAD LOSS (COOLING)				kPa		10.5		24.0		20.1		32.4			
	HEAD LOSS (HEATING) : 50°C				kPa		8.8		20.3		17.0		27.6			
	MAX. WORKING PRESSURE				kPa		1608									
	SURFACE AIR VELOCITY				m/s		1.29		1.72		1.83		1.72			
	SOUND PRESSURE LEVEL (H/M/L)				dBA		36 / 35 / 33		40 / 38 / 33		42 / 41 / 40		41 / 40 / 36			
	UNIT DIMENSION			H X W X D		mm		267 x 702 x 351		267 x 842 x 351		267 x 1002 x 351		267 x 1137 x 351		
	PACKING DIMENSION			H X W X D		mm		376 x 951 x 541		376 x 1091 x 541		376 x 1251 x 541		376 x 1386 x 541		
	UNIT WEIGHT				kg		18		22		24		26			
	CONDENSATE DRAIN SIZE				mm		19.05									
	PIPE CONNECTION				mm		19.05									
	FAN		TYPE		DRIVE		BLOWER									
							DIRECT									
			FAN SPEED		HIGH		RPM		1221		1211		1410		1355	
					MEDIUM		RPM		1172		1047		1328		1215	
					LOW		RPM		1123		835		1133		937	
			FAN EFFICIENCY		HIGH		%		38.70		42.90		39.70		36.20	
					MEDIUM		%		40.70		51.90		47.50		38.10	
					LOW		%		43.00		50.30		48.90		39.10	
			FAN MOTOR		TYPE		INDUCTION									
							IP20									
	B															
	RATED INPUT POWER				HIGH		W		89		140		168		182	
					MEDIUM		W		86		128		165		175	
					LOW		W		78		127		163		163	
	RATED RUNNING CURRENT				HIGH		A		0.40		0.65		0.77		0.86	
					MEDIUM		A		0.39		0.59		0.73		0.77	
					LOW		A		0.35		0.59		0.71		0.71	
	STARTING CURRENT				A		0.73		1.66		1.22		1.86			
MOTOR OUTPUT					W		38		72		80		90			
MOTOR EFFICIENCY		HIGH			%		47.90		49.70		56.40		57.50			
		MEDIUM			%		42.40		39.60		50.90		48.40			
		LOW			%		33.60		24.80		44.10		30.40			
POLES					4											
COIL		TUBE			MATERIAL		COPPER									
				DIAMETER		mm		9.52								
		FIN		MATERIAL		ALUMINIUM										
				FACE AREA		m²		0.11		0.14		0.18		0.20		
		ROW				3										
WATER VOLUME				litre		0.94		1.15		1.43		1.63				
AIR QUALITY		FILTER		TYPE		N/A										
				QUANTITY		pc										
CASING				COLOUR		N/A										

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System)
		70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL				FWPMM9A(Z)V1	FWPMM11A(Z)V1	FWPMM12A(Z)V1	FWPMM14A(Z)V1	FWPMM16A(Z)V1	
NOMINAL COOLING CAPACITY			Btu/h	24800	38000	37000	44700	51800	
			W	7270	11140	10840	13100	15180	
NOMINAL SENSIBLE COOLING CAPACITY			Btu/h	19700	29800	29300	35100	40900	
			W	5770	8730	8590	10290	11990	
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)			Btu/h	32800	49200	48000	54900	65300	
			W	9610	14420	14070	16090	19140	
NOMINAL TOTAL INPUT POWER			W	345	504	442	427	530	
NOMINAL RUNNING CURRENT			A	1.50	2.28	1.93	1.86	2.31	
POWER SOURCE			V/Ph/Hz	220-240 / 1 / 50					
REFRIGERANT TYPE			N/A						
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION		DUCTED					
				WIRED REMOTE HANDSET					
	AIR FLOW	HIGH	CFM	830	1250	1240	1340	1550	
		MEDIUM	CFM	760	1130	1100	1220	1400	
		LOW	CFM	710	1040	1020	1190	1300	
	EXTERNAL STATIC PRESSURE		Pa	167 / 128 / 88	118 / 108 / 88	128 / 88 / 39	157 / 137 / 108	157 / 137 / 98	
	NOMINAL WATER FLOW RATE		USGPM	5.55	8.59	8.28	10.04	11.62	
			litres/min	21.01	32.51	31.34	38.00	43.98	
	HEAD LOSS (COOLING)		kPa	14.0	39.0	23.0	38.0	51.0	
	HEAD LOSS (HEATING) : 50°C		kPa	11.0	37.0	19.0	33.0	48.0	
	MAX. WORKING PRESSURE		kPa	1608					
	SURFACE AIR VELOCITY		m/s	1.40	1.74	1.83	1.54	1.52	
	SOUND PRESSURE LEVEL (H/M/L)		dBA	46 / 42 / 38	51 / 48 / 45	49 / 45 / 41	52 / 50 / 47	53 / 50 / 47	
	UNIT DIMENSION	H X W X D	mm	384 x 917 x 462	316 x 1225 x 559	384 x 1003 x 462	384 x 1287 x 462	384 x 1487 x 462	
	PACKING DIMENSION	H X W X D	mm	415 x 1126 x 631	355 x 1461 x 727	415 x 1245 x 631	415 x 1497 x 631	415 x 1701 x 631	
	UNIT WEIGHT		kg	42	47	44	50	56	
	CONDENSATE DRAIN SIZE		mm	19.05					
	PIPE CONNECTION		mm	19.05					
	FAN	TYPE		BLOWER					
		DRIVE		DIRECT					
		FAN SPEED	HIGH	RPM	1180	1406	1279	1279	1351
			MEDIUM	RPM	1053	1331	1181	1204	1280
			LOW	RPM	937	1232	1052	1097	1208
		FAN EFFICIENCY	HIGH	%	37.20	46.00	42.20	43.70	41.70
			MEDIUM	%	39.50	49.10	42.90	47.30	43.30
			LOW	%	41.60	44.50	44.30	48.70	43.40
	FAN MOTOR	TYPE		INDUCTION					
		INDEX OF PROTECTION (IP)		IP20	IP21	IP22	IP20	IP20	
		INSULATION GRADE		B					
		RATED INPUT POWER	HIGH	W	345	504	442	427	530
			MEDIUM	W	304	380	384	388	457
			LOW	W	270	338	342	373	405
RATED RUNNING CURRENT		HIGH	A	1.50	2.28	1.93	1.86	2.31	
		MEDIUM	A	1.34	1.65	1.69	1.69	2.02	
		LOW	A	1.21	1.48	1.54	1.63	1.85	
STARTING CURRENT		A	2.43	2.77	3.18	3.50	4.90		
MOTOR OUTPUT		W	310	470	355	373	500		
MOTOR EFFICIENCY		HIGH	%	60.80	63.10	63.80	63.00	68.00	
		MEDIUM	%	47.40	60.80	47.50	58.60	59.60	
	LOW	%	34.80	53.00	32.30	49.40	46.10		
COIL	POLES		4						
	TUBE	MATERIAL	COPPER						
		DIAMETER	mm	9.52					
	FIN	MATERIAL	ALUMINIUM						
		FACE AREA	m²	0.28	0.34	0.32	0.41	0.48	
	ROW		3	3	3	3	3		
WATER VOLUME		litre	2.21	2.66	2.60	3.33	3.80		
AIR QUALITY	FILTER	TYPE	N/A						
		QUANTITY	N/A						
CASING		COLOUR	N/A						

MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System)
		70°C (4 Pipes System)
LEAVING WATER TEMPERATURE	12°C	60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Engineering Data - Chilled Water Fan Coil Unit

MODEL				UAHMM20A(Z)V1		UAHMM25A(Z)V1		UAHMM30A(Z)Y1		UAHMM40A(Z)Y1					
NOMINAL COOLING CAPACITY				Btu/h		75600		95000		125000		150000			
				W		22160		27840		36640		43960			
NOMINAL SENSIBLE COOLING CAPACITY				Btu/h		53700		69400		90000		106500			
				W		15740		20340		26380		31210			
NOMINAL HEATING CAPACITY (ENTERING WATER TEMP. = 50°C)				Btu/h		78000		97500		138000		170000			
				W		22860		28580		40450		49820			
NOMINAL TOTAL INPUT POWER				W		760		1800		1620		1910			
NOMINAL RUNNING CURRENT				A		3.49		7.84		3.33		4.03			
POWER SOURCE				V/Ph/Hz		220-240 / 1 / 50				380-415 / 3 / 50					
REFRIGERANT TYPE				N/A											
INDOOR UNIT	CONTROL		AIR DISCHARGE OPERATION		DUCTED										
	AIR FLOW		HIGH		CFM		2500		3200		4200		4600		
			MEDIUM		CFM		2100		3000		N/A		N/A		
			LOW		CFM		1750		2800		N/A		N/A		
	EXTERNAL STATIC PRESSURE				Pa		100 / 72 / 50		100 / 80 / 60		230		230		
	NOMINAL WATER FLOW RATE				USGPM		16.90		21.10		27.70		33.30		
					litres/min		64.00		80.00		105.00		126.00		
	HEAD LOSS (COOLING)				kPa		34.5		42.0		48.8		53.3		
	HEAD LOSS (HEATING) : 50°C				kPa		32.9		27.4		31.5		63.2		
	MAX. WORKING PRESSURE				kPa		1608								
	SURFACE AIR VELOCITY				m/s		2.19		2.80		1.96		2.15		
	SOUND PRESSURE LEVEL				dBA		50 / 46 / 42		54 / 52 / 50		58		58		
	UNIT DIMENSION		H X W X D		mm		572 x 1402 x 605				885 x 1540 x 850				
	PACKING DIMENSION		H X W X D		mm		762 x 1605 x 880				1154 x 1787 x 1188				
	UNIT WEIGHT				kg		92		102		176		189		
	CONDENSATE DRAIN SIZE				mm		19.05								
	PIPE CONNECTION				mm		28.58								
	FAN	TYPE		DRIVE		BLOWER									
		FAN SPEED		HIGH		RPM		835		950		707		707	
				MEDIUM		RPM		720		885		N/A		N/A	
				LOW		RPM		615		805		N/A		N/A	
		FAN EFFICIENCY		HIGH		%		43.30		31.60		N/A		N/A	
				MEDIUM		%		43.20		35.00		N/A		N/A	
				LOW		%		45.40		38.20		N/A		N/A	
		FAN MOTOR	TYPE				INDUCTION								
	INDEX OF PROTECTION (IP)				IP22										
	INSULATION GRADE				B										
	RATED INPUT POWER		HIGH		W		760		1800		1620		1910		
MEDIUM			W		611		1620		N/A		N/A				
LOW			W		478		1320		N/A		N/A				
RATED RUNNING CURRENT			HIGH		A		3.49		7.84		3.33		4.03		
			MEDIUM		A		2.86		7.06		N/A		N/A		
			LOW		A		2.32		5.82		N/A		N/A		
STARTING CURRENT				A		5.20		10.30		24.00		29.00			
MOTOR OUTPUT				W		375		500		1500		2200			
MOTOR EFFICIENCY			HIGH		%		58.30		41.00		N/A		N/A		
			MEDIUM		%		42.50		36.60		N/A		N/A		
			LOW		%		31.30		31.30		N/A		N/A		
POLES						6		4		4		4			
COIL	TUBE		MATERIAL		COPPER										
			DIAMETER		mm		9.53								
	FIN		MATERIAL		ALUMINIUM										
			FACE AREA		m²		0.54		0.54		1.01		1.01		
	ROW						3		4		3		4		
WATER VOLUME				litre		4.53		6.27		8.14		11.63			
AIR QUALITY		FILTER		TYPE		N/A									
				QUANTITY		N/A									
CASING				pc		N/A									
				COLOUR		IVORY									

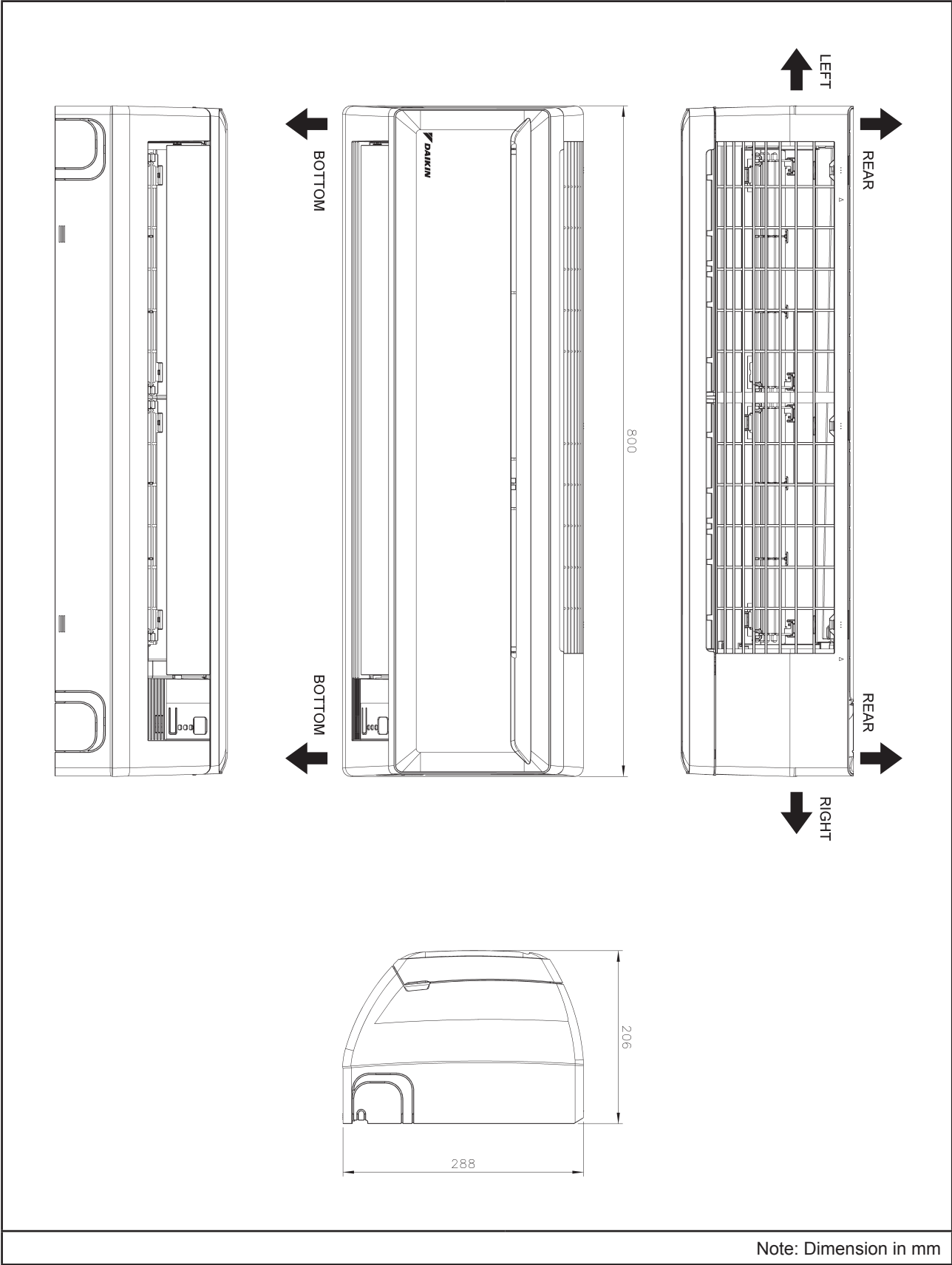
MODE	COOLING	HEATING
ENTERING AIR TEMPERATURE	27°C DB / 19°C WB	20°C DB
ENTERING WATER TEMPERATURE	7°C	50°C (2 Pipes System)
LEAVING WATER TEMPERATURE	12°C	70°C (4 Pipes System)
		60°C (4 Pipes System)

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

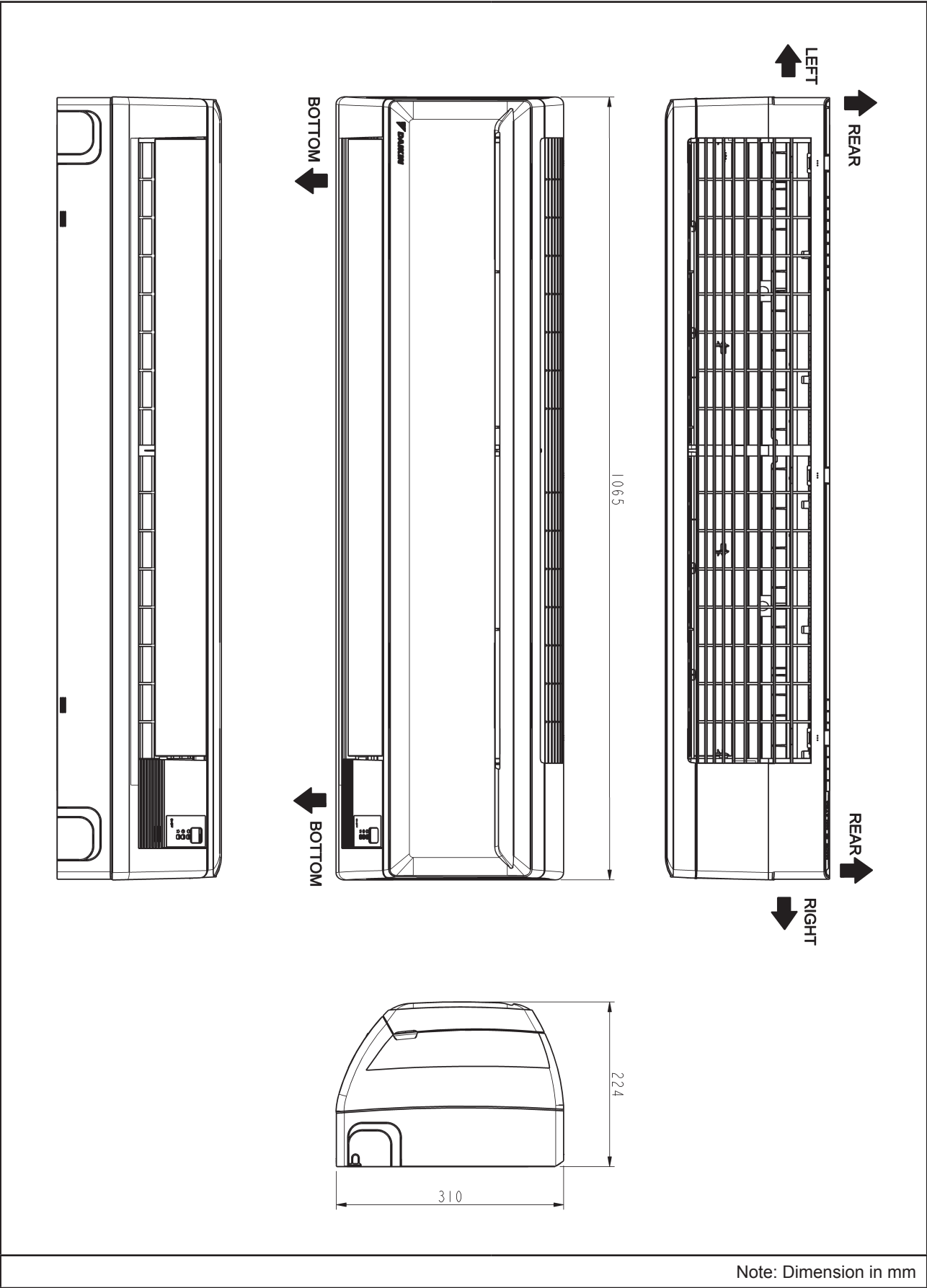
Outlines & Dimensions

Indoor Unit

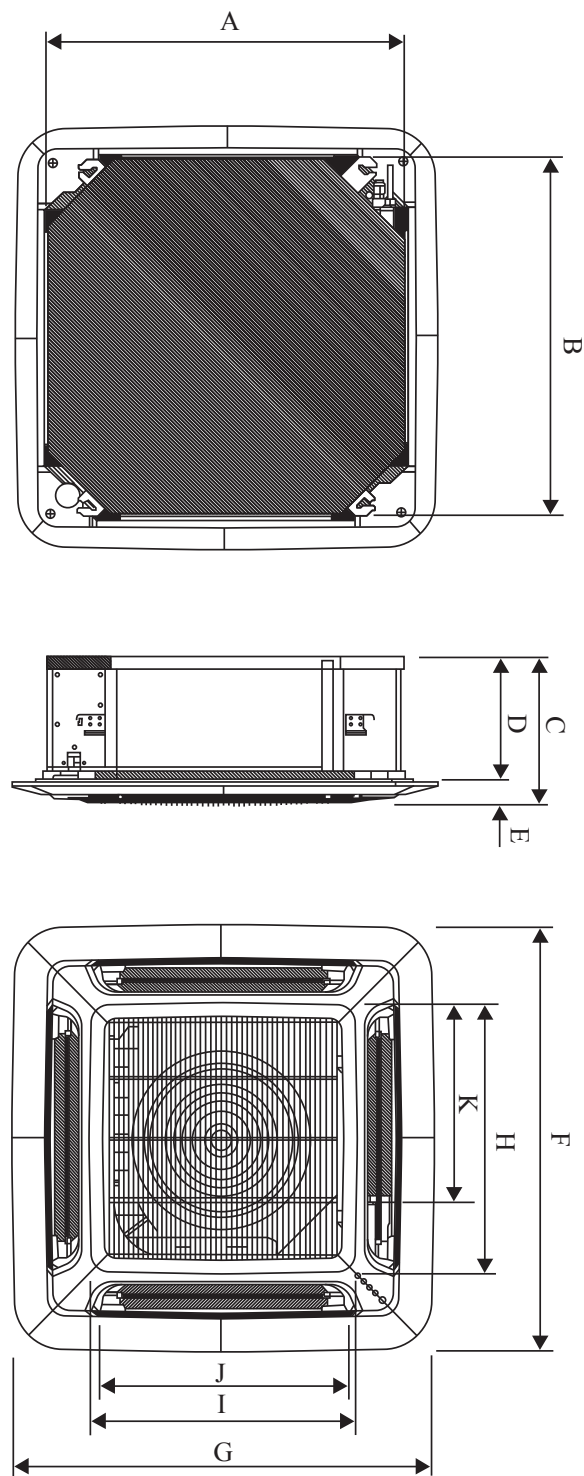
Model: FWMT02/03/04C



Model: FWMT05/06C



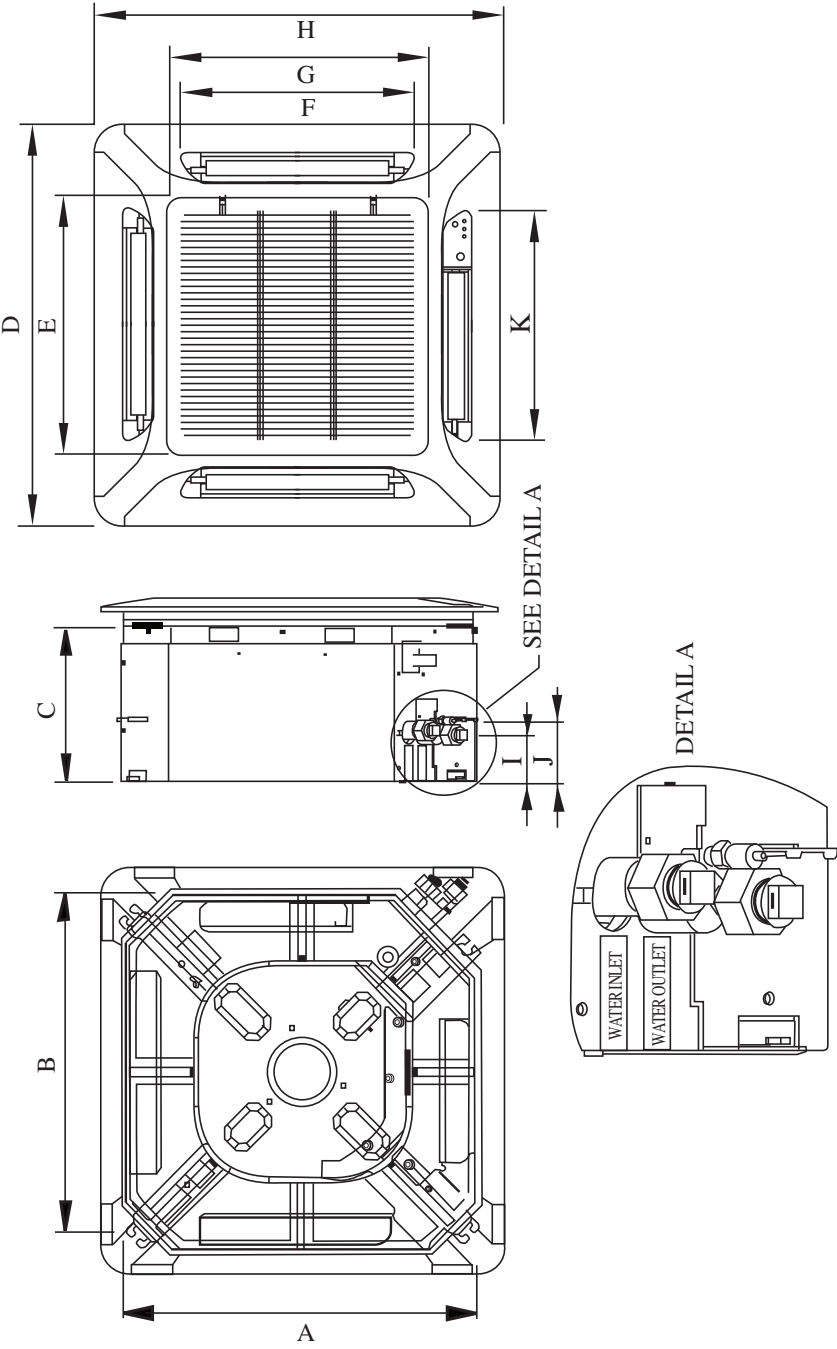
Model: FWMJC6/8/9/11/13B



Dimension	A	B	C	D	E	F	G	H	I	J	K
Model											
FWMJC6/8/9/11/13B	820	820	340	300	40	990	990	627	627	607	430

Note: Dimension in mm

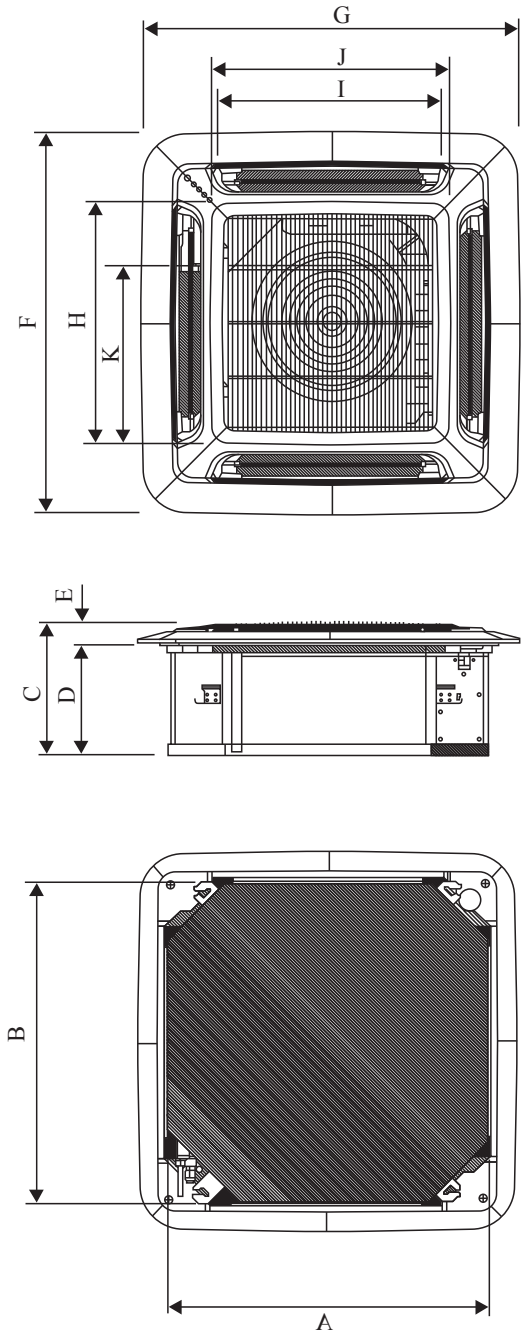
Model: FWMJCC2/4/5B



Dimension Model	A	B	C	D	E	F	G	H	I	J	K
FWMJCC2BV1 / FWMJCC4BV1 / FWMJCC5BV1	570	570	250	640	408	364	408	640	75	98	364

Note: Dimension in mm

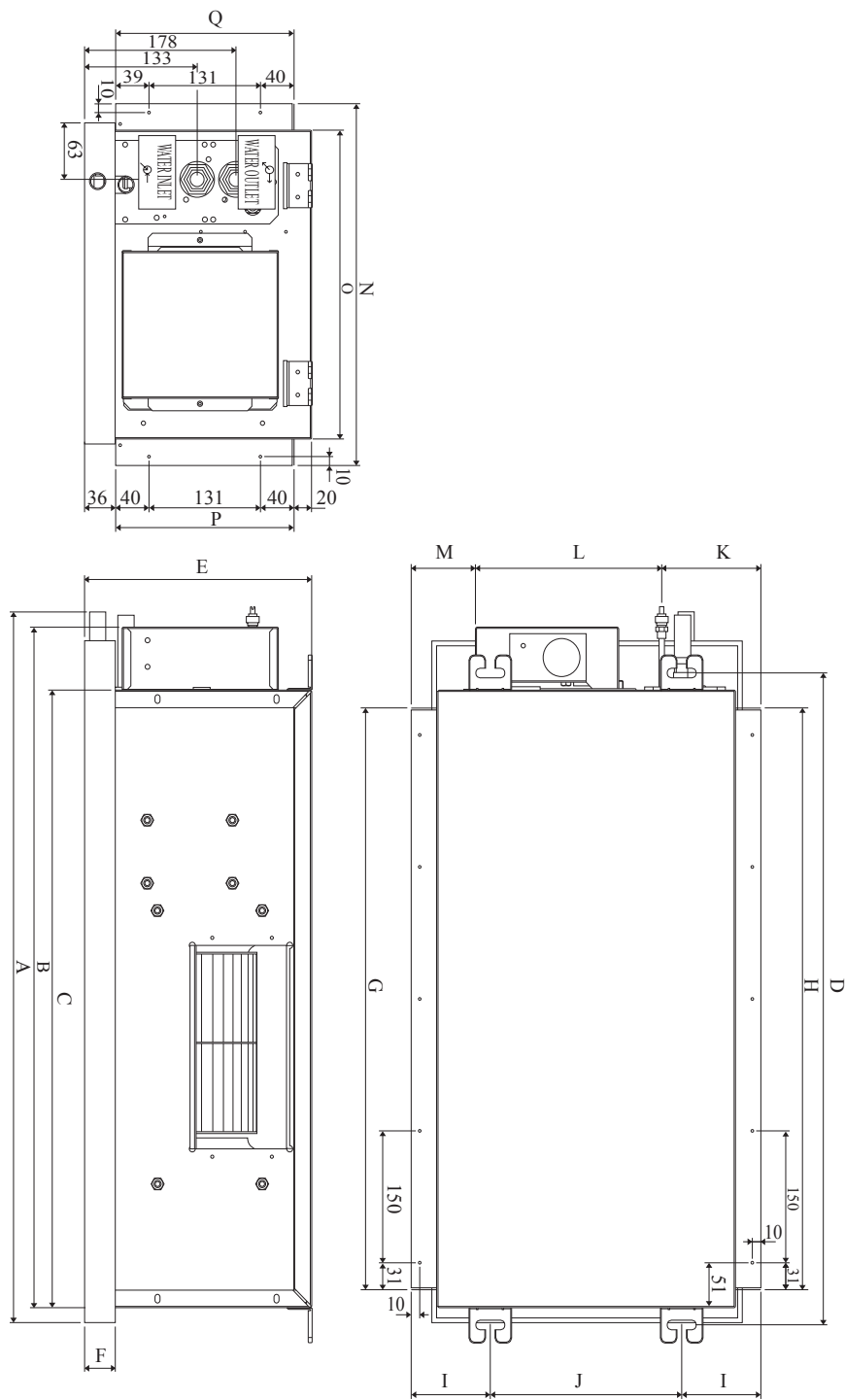
Model: FWKE05/08/11E



Dimension	A	B	C	D	E	F	G	H	I	J	K
Model											
FWKE05/08E	820	820	340	300	40	990	990	627	627	607	430
FWKE11E	820	820	375	335	40	990	990	627	627	607	430

Note: Dimension in mm

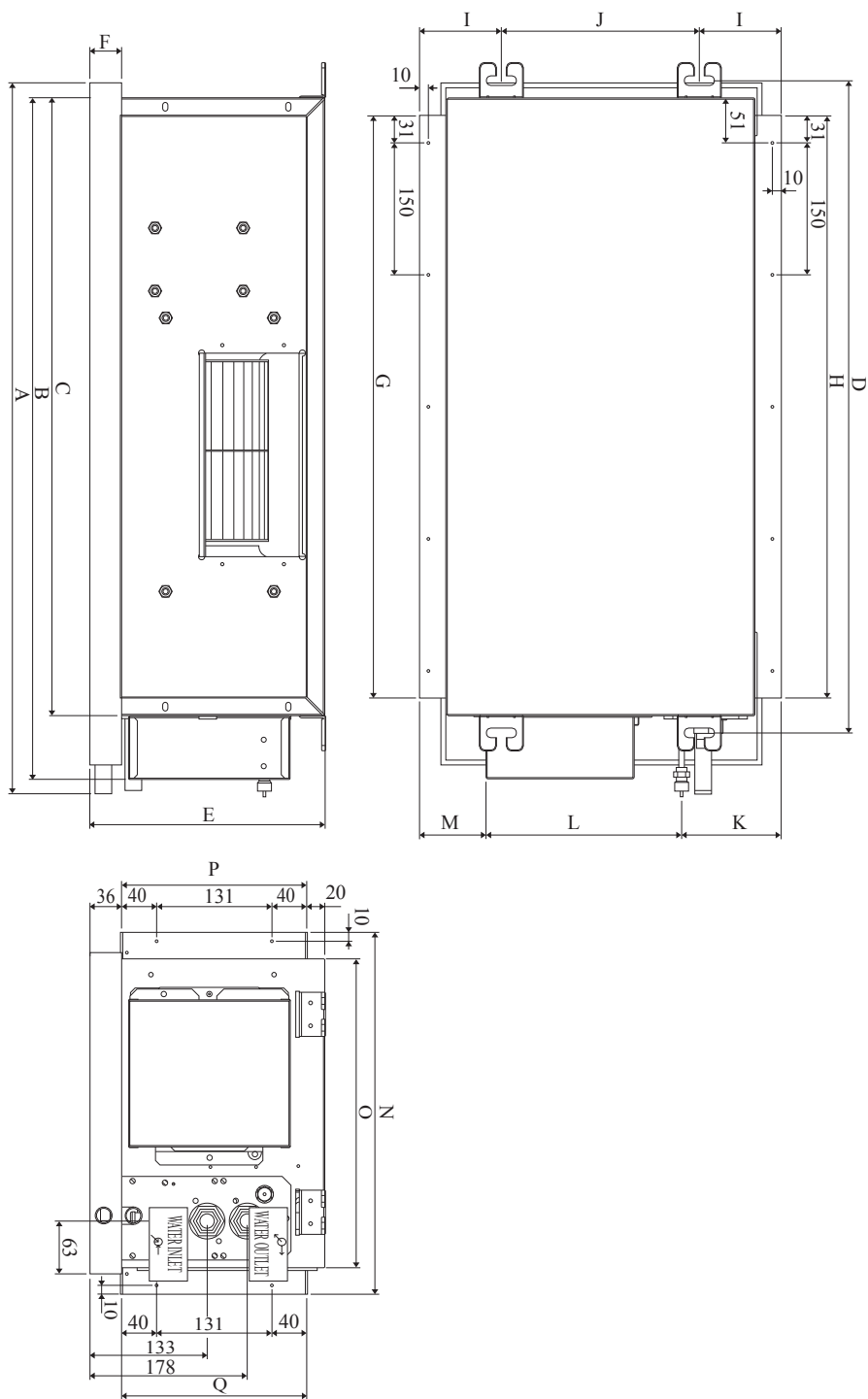
Model: FWPM3A (Left Piping)



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Model																	
FWPM3AV1	808	774	702	741	267	36	662	662	93	225	115	218	76	411	351	211	211

Note: Dimension in mm

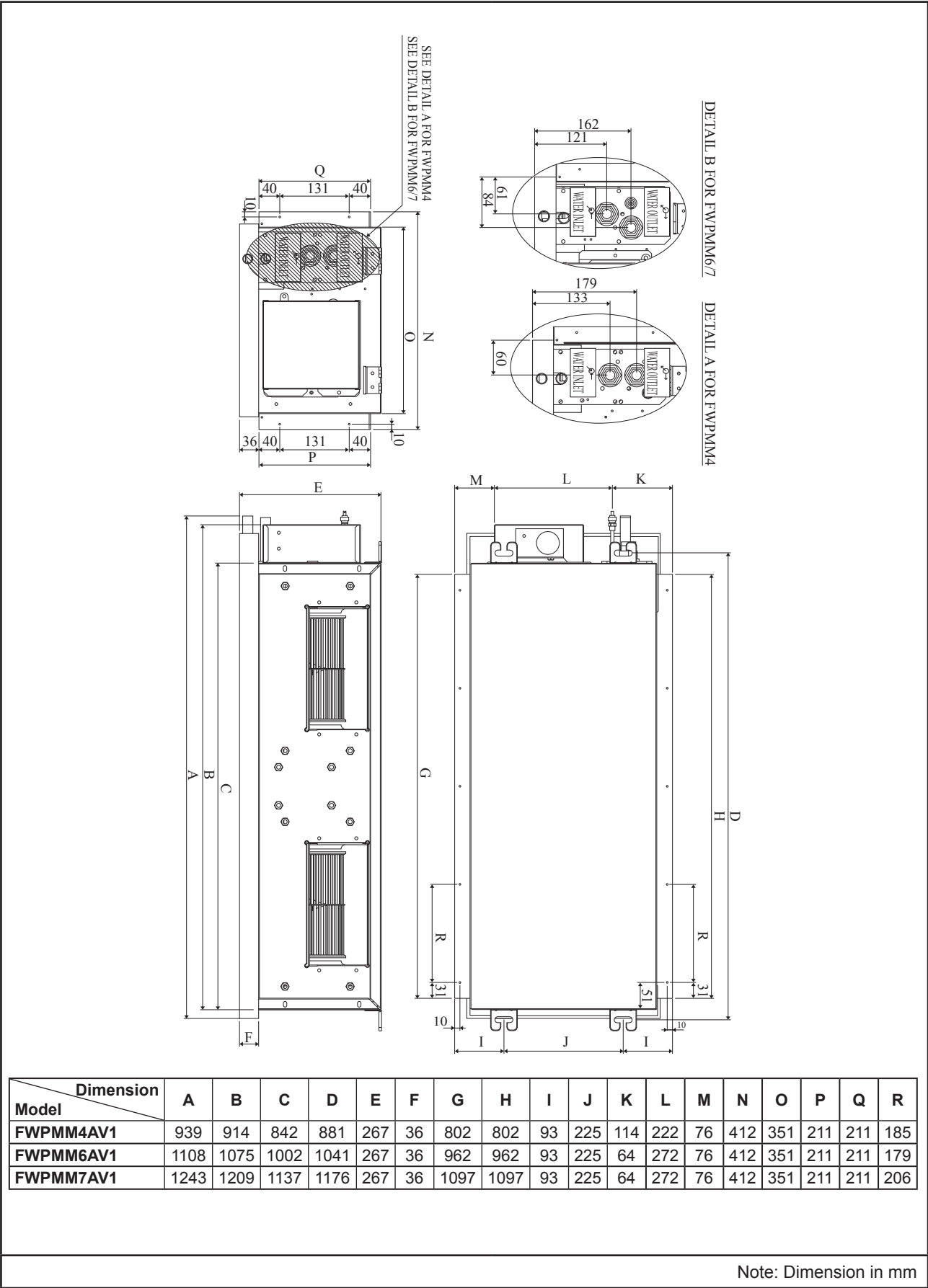
Model: FWPM3A (Right Piping)



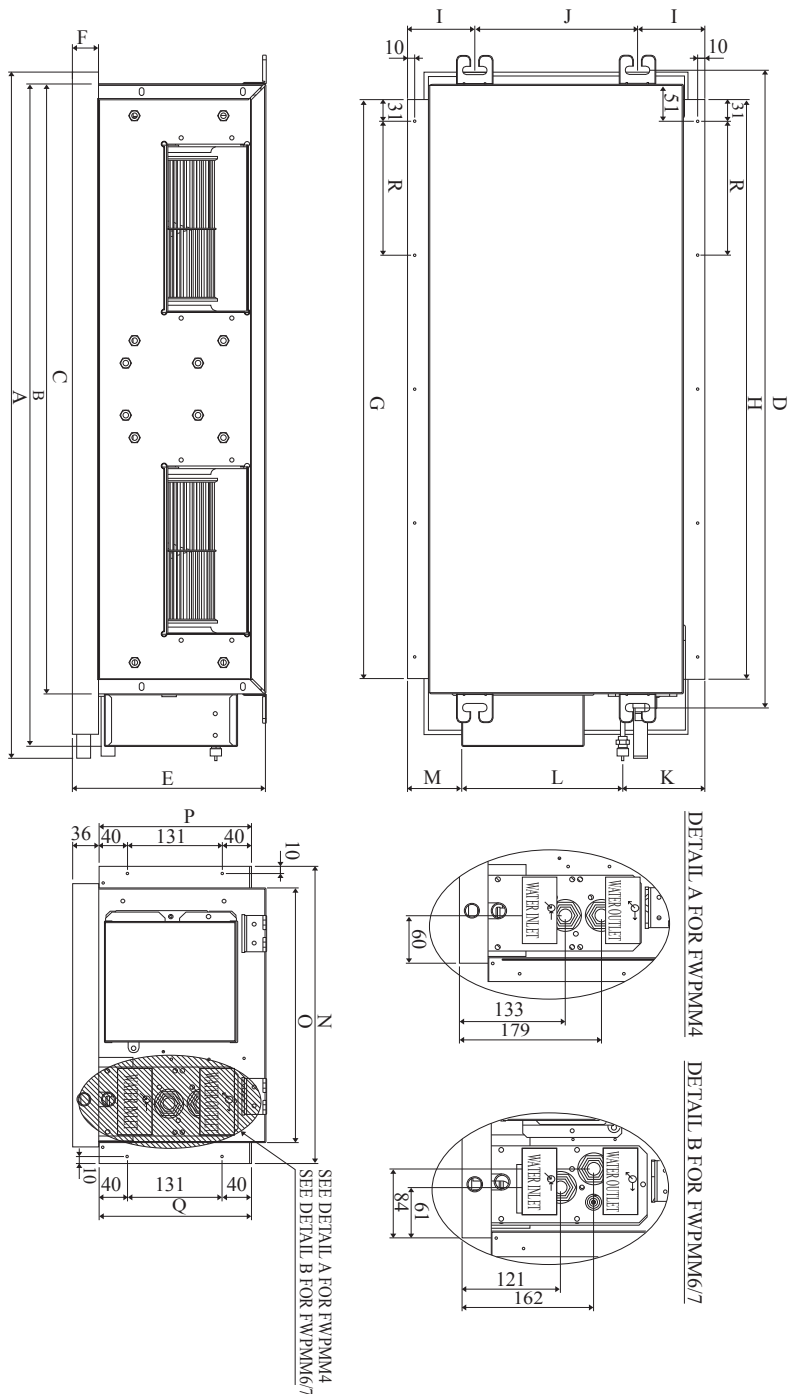
Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Model																	
FWPM3AV1	808	774	702	741	267	36	662	662	93	225	115	218	76	411	351	211	211

Note: Dimension in mm

Model: FWPM4/6/7A (Left Piping)



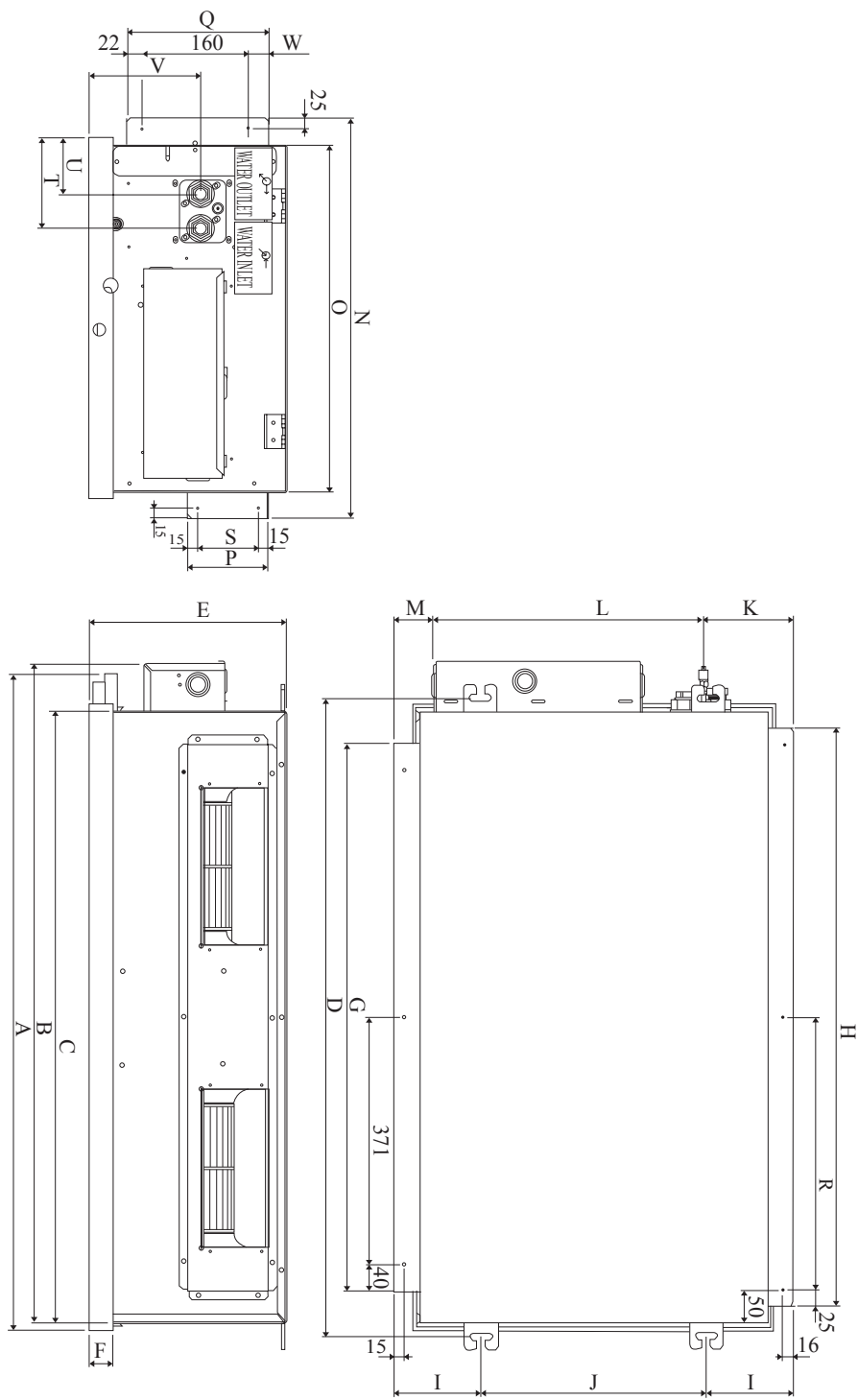
Model: FWPM4/6/7A (Right Piping)



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Model																		
FWPMM4AV1	939	914	842	881	267	36	802	802	93	225	114	222	76	412	351	211	211	185
FWPMM6AV1	1108	1075	1002	1041	267	36	962	962	93	225	64	272	76	412	351	211	211	179
FWPMM7AV1	1243	1209	1137	1176	267	36	1097	1097	93	225	64	272	76	412	351	211	211	206

Note: Dimension in mm

Model: FWPM11A (Left Piping)

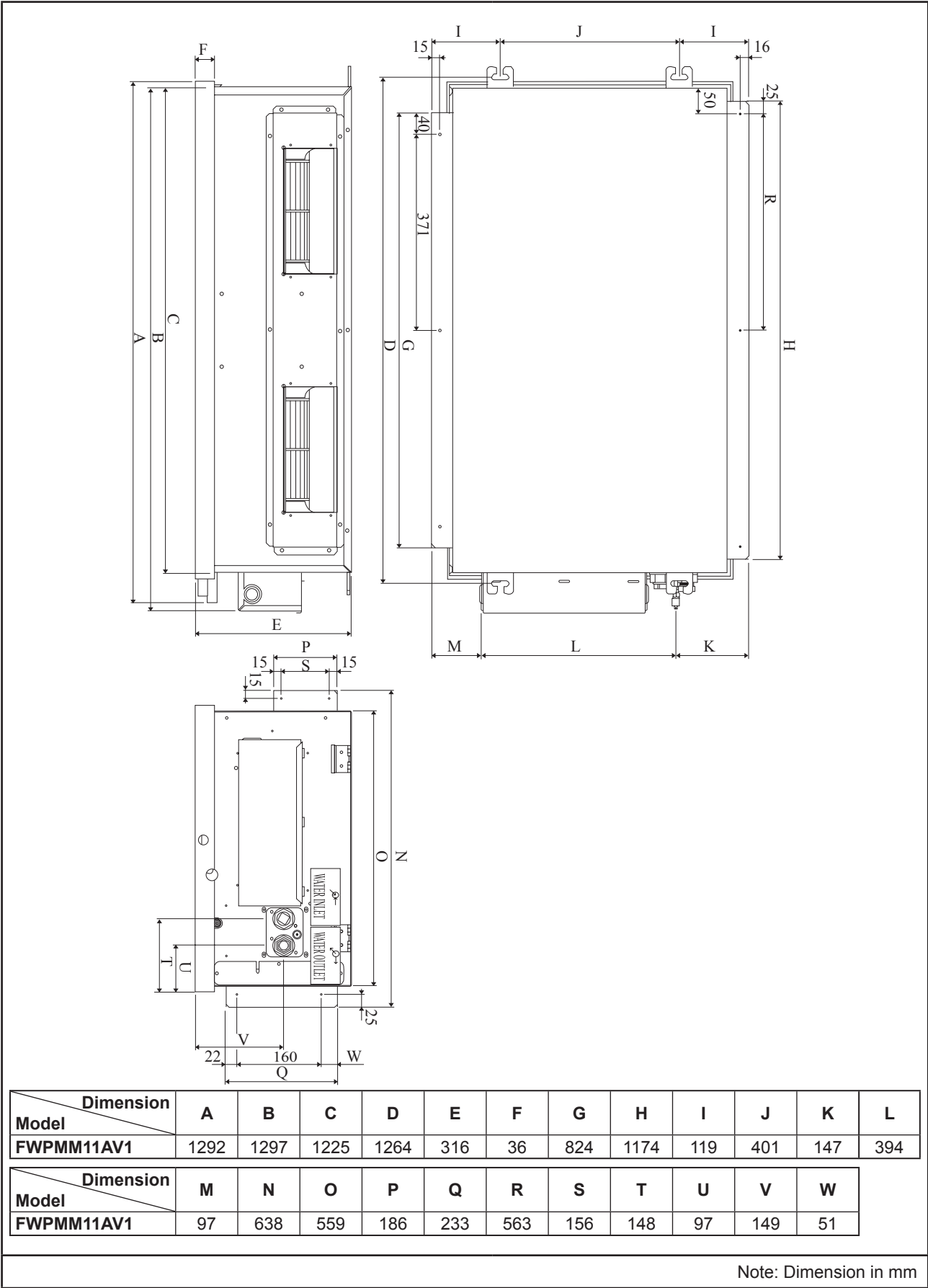


Dimension	A	B	C	D	E	F	G	H	I	J	K	L
Model												
FWPM11AV1	1292	1297	1225	1264	316	36	824	1174	119	401	147	394

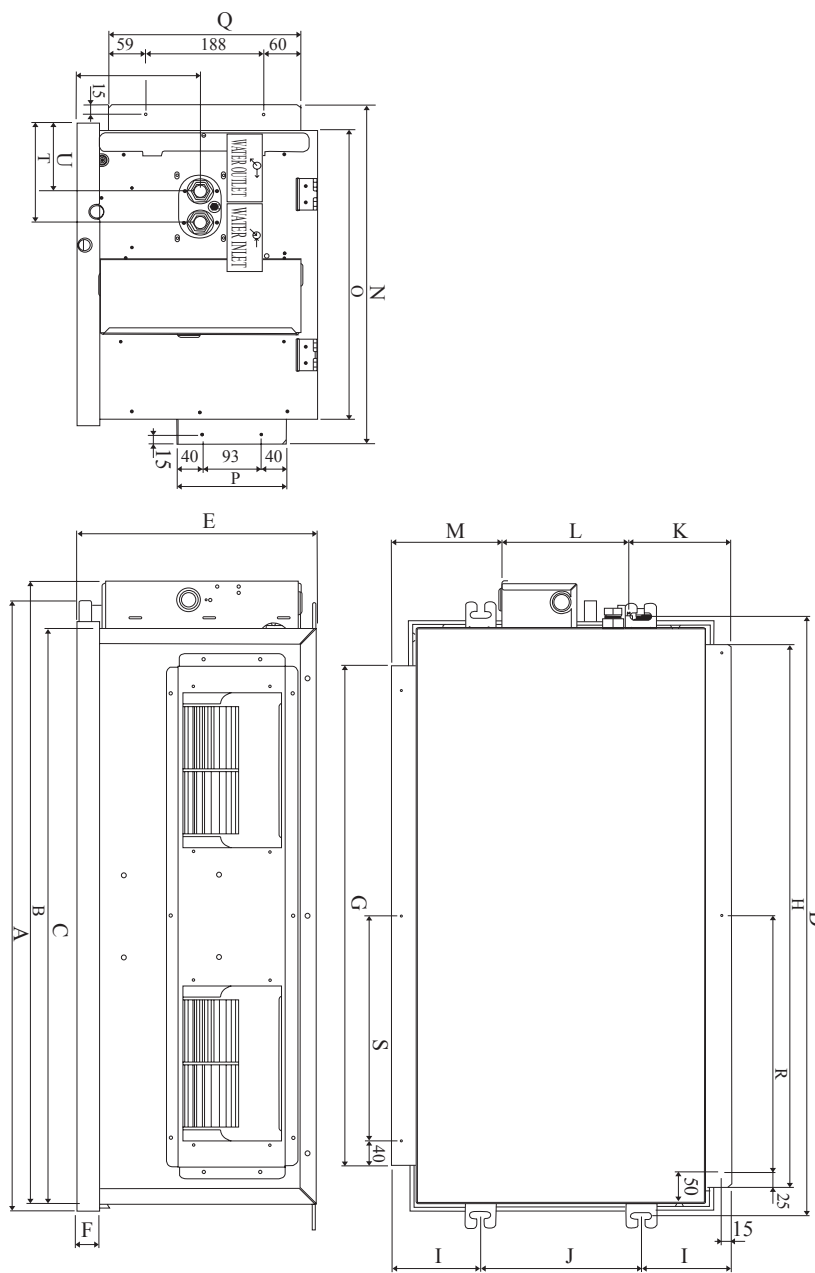
Dimension	M	N	O	P	Q	R	S	T	U	V	W
Model											
FWPM11AV1	97	638	559	186	233	563	156	148	97	149	51

Note: Dimension in mm

Model: FWPM11A (Right Piping)



Model: FWPM9/12/14/16A (Left Piping)

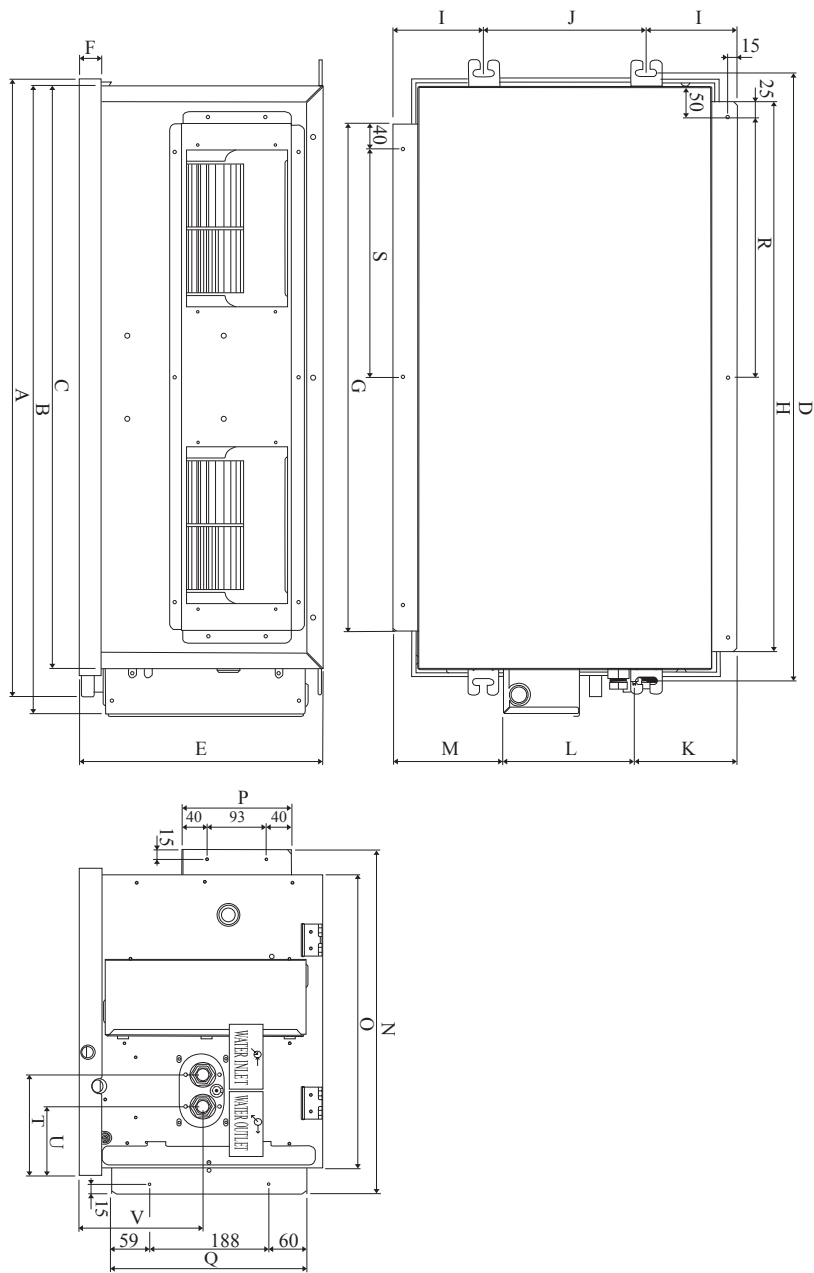


Dimension	A	B	C	D	E	F	G	H	I	J	K	L
Model												
FWPMM9AV1	972	988	917	956	384	36	798	866	143	256	162	206
FWPMM12AV1	1088	1105	1033	1072	384	36	798	982	143	256	162	206
FWPMM14AV1	1342	1358	1287	1326	384	36	798	1236	143	256	159	209
FWPMM16AV1	1542	1558	1487	1526	384	36	798	1436	143	256	159	199

Dimension	M	N	O	P	Q	R	S	T	U	V
Model										
FWPMM9AV1	173	541	462	173	307	409	359	159	109	196
FWPMM12AV1	173	541	462	173	307	467	359	159	109	196
FWPMM14AV1	173	541	462	173	307	594	359	156	106	196
FWPMM16AV1	183	541	462	173	307	694	359	154	104	196

Note: Dimension in mm

Model: FWPM9/12/14/16A (Right Piping)

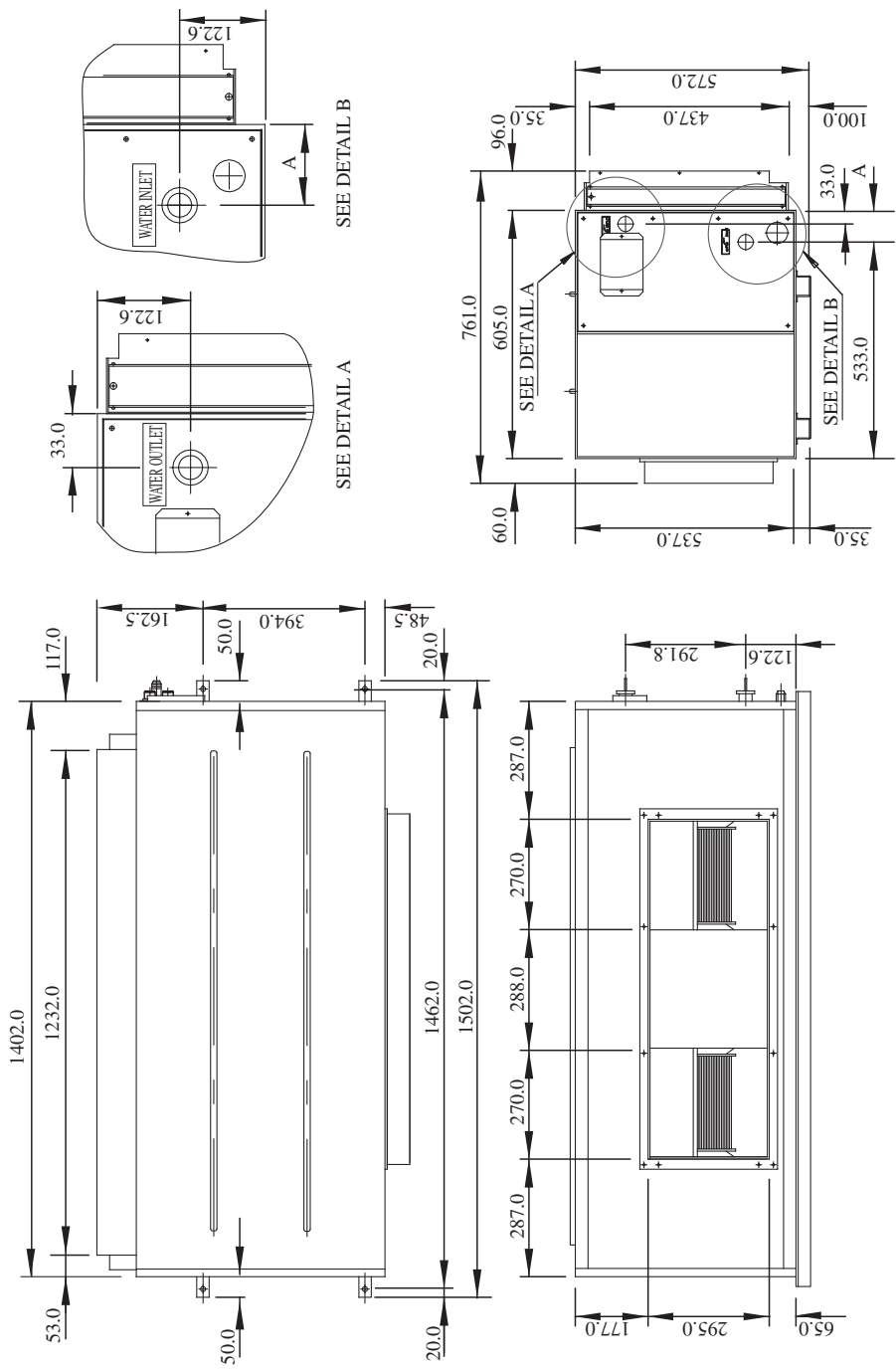


Dimension	A	B	C	D	E	F	G	H	I	J	K	L
Model												
FWPMM9AV1	972	988	917	956	384	36	798	866	143	256	162	206
FWPMM12AV1	1088	1105	1033	1072	384	36	798	982	143	256	162	206
FWPMM14AV1	1342	1358	1287	1326	384	36	798	1236	143	256	159	209
FWPMM16AV1	1542	1558	1487	1526	384	36	798	1436	143	256	159	199

Dimension	M	N	O	P	Q	R	S	T	U	V
Model										
FWPMM9AV1	173	541	462	173	307	409	359	159	109	196
FWPMM12AV1	173	541	462	173	307	467	359	159	109	196
FWPMM14AV1	173	541	462	173	307	594	359	156	106	196
FWPMM16AV1	183	541	462	173	307	694	359	154	104	196

Note: Dimension in mm

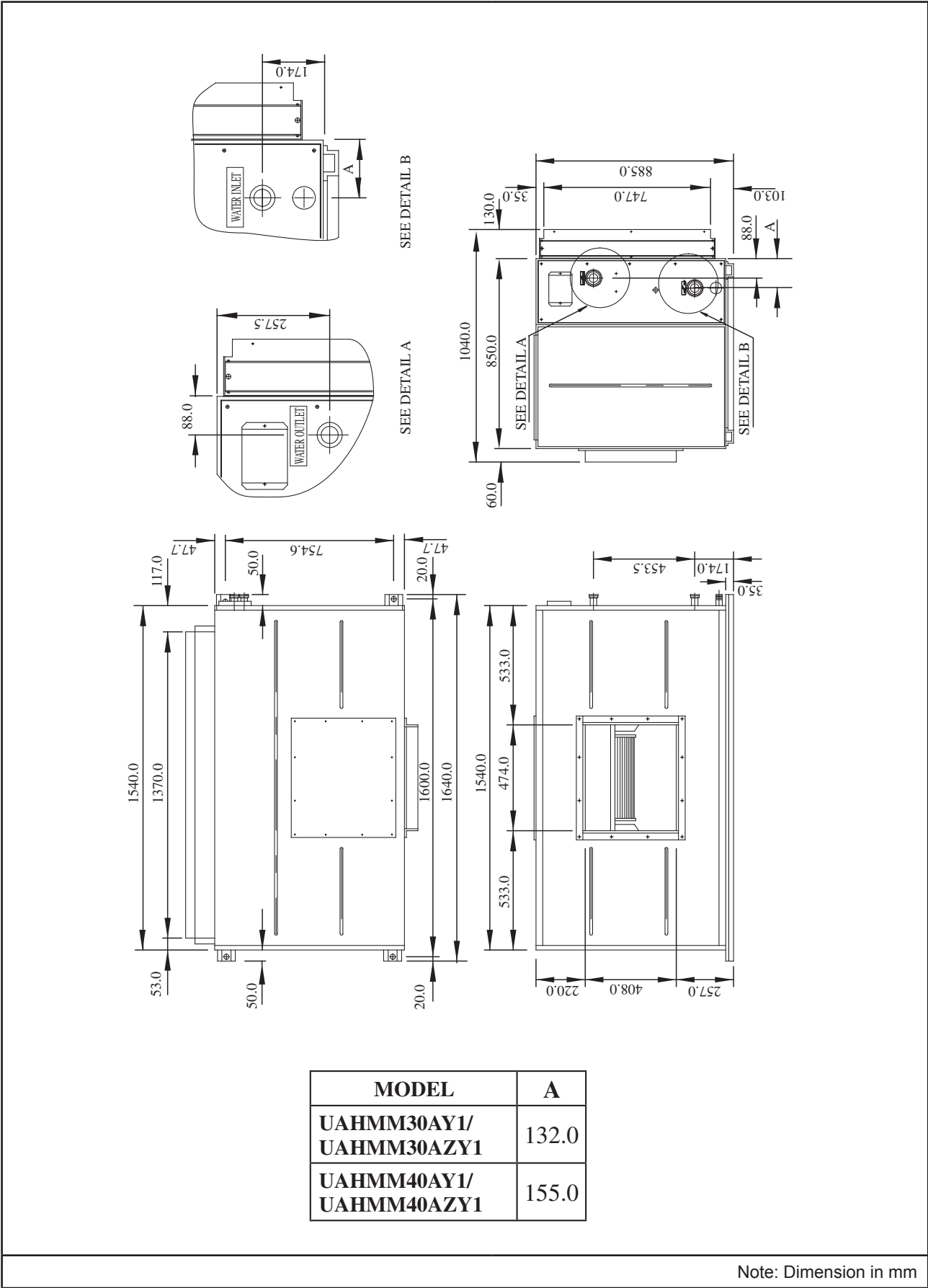
Model: UAHMM20/25A



MODEL	A
UAHMM20AV1/ UAHMM20AZV1	72.0
UAHMM25AV1/ UAHMM25AZV1	94.0

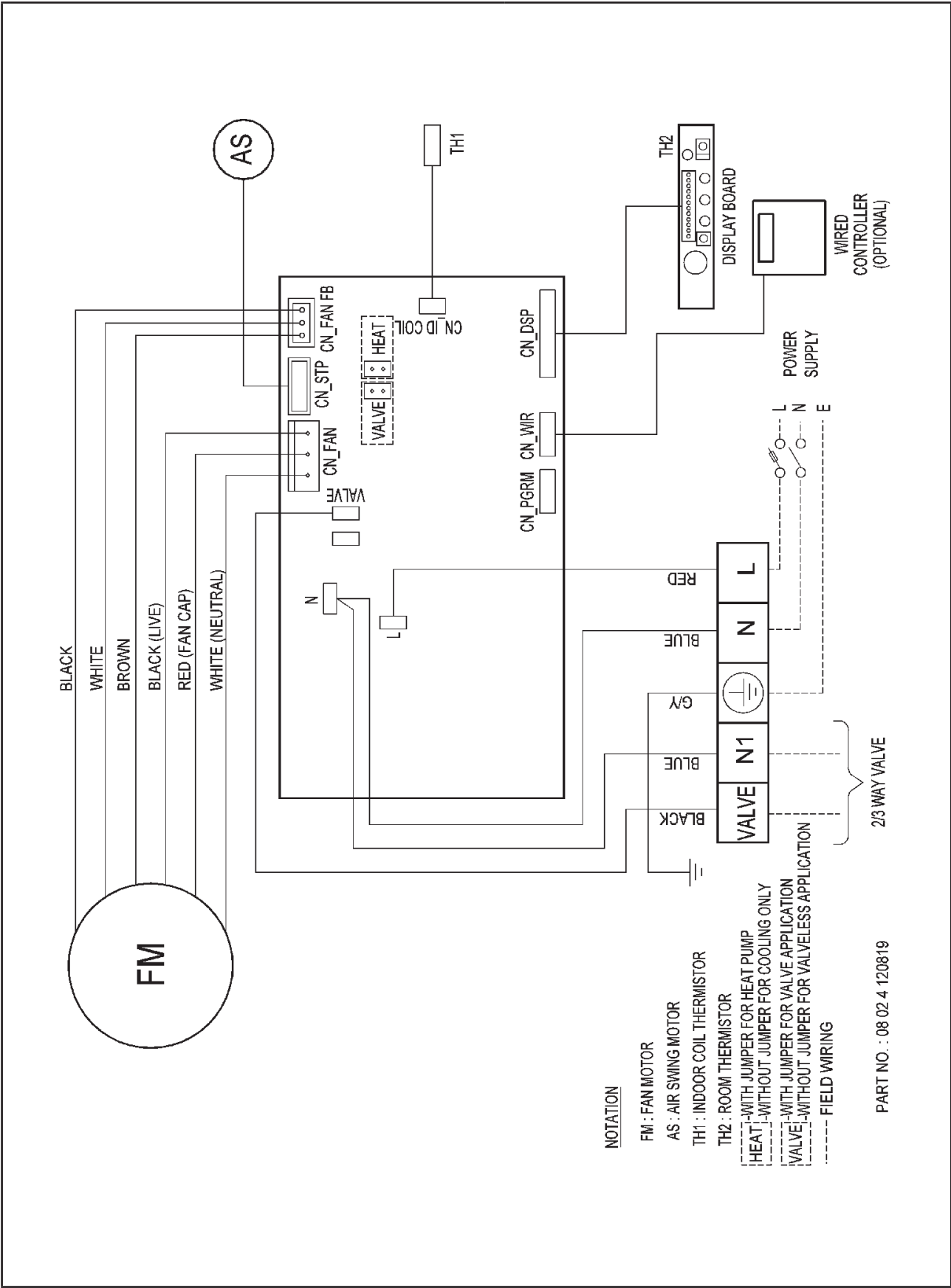
Note: Dimension in mm

Model: UAHMM30/40A (Horizontal Air Discharge)

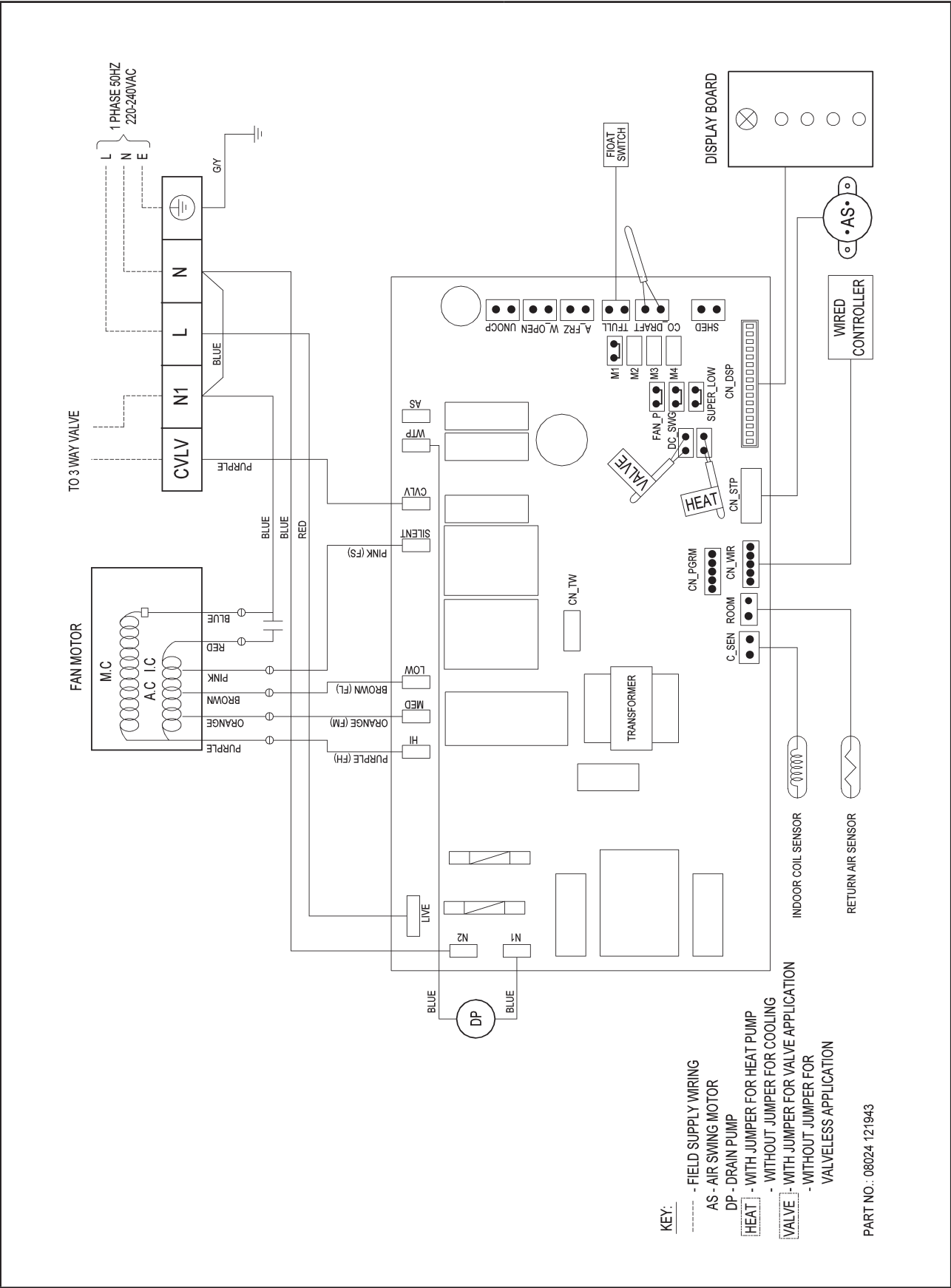


Wiring Diagrams

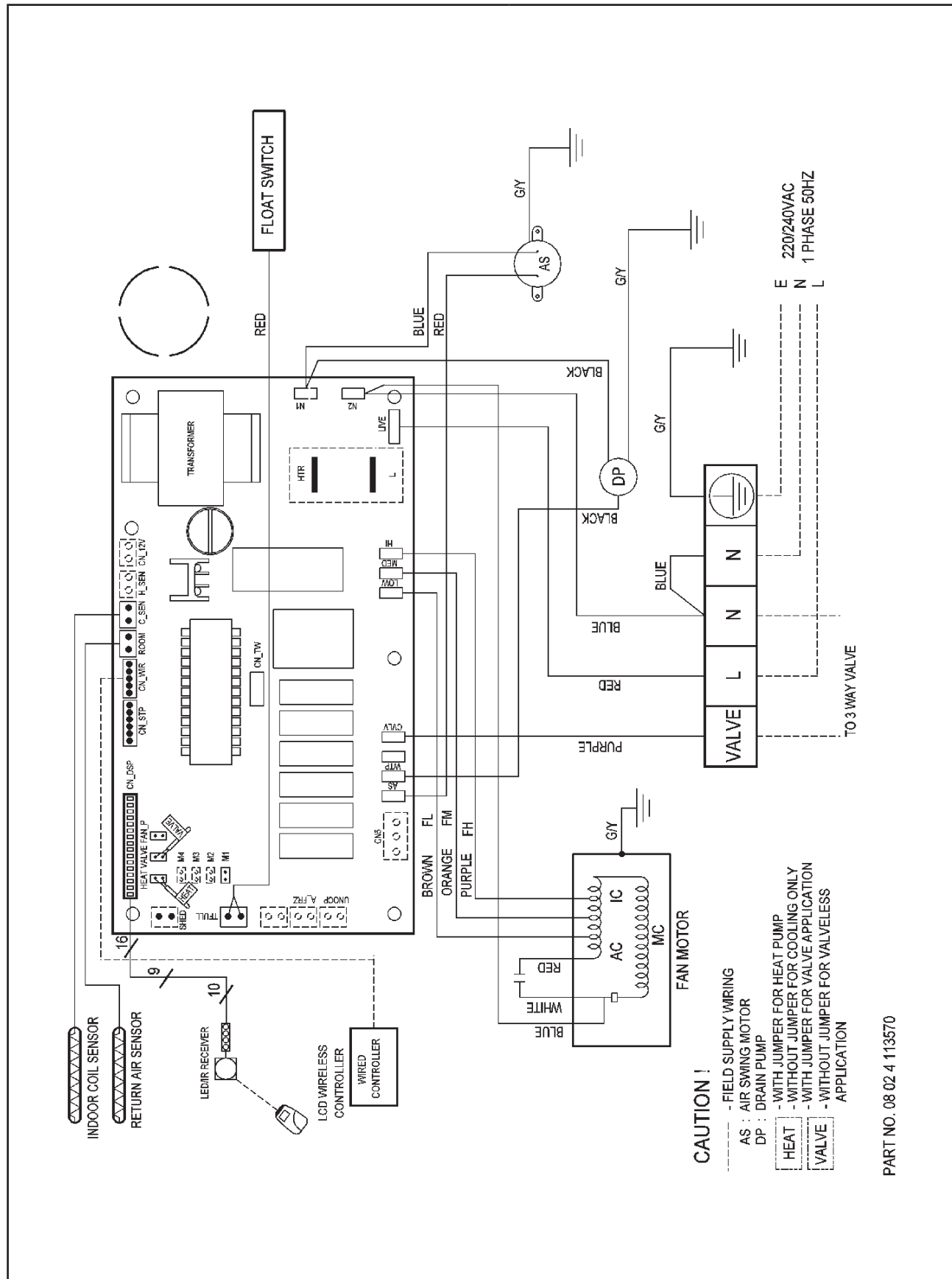
Model: FWMT02/03/04/05/06C



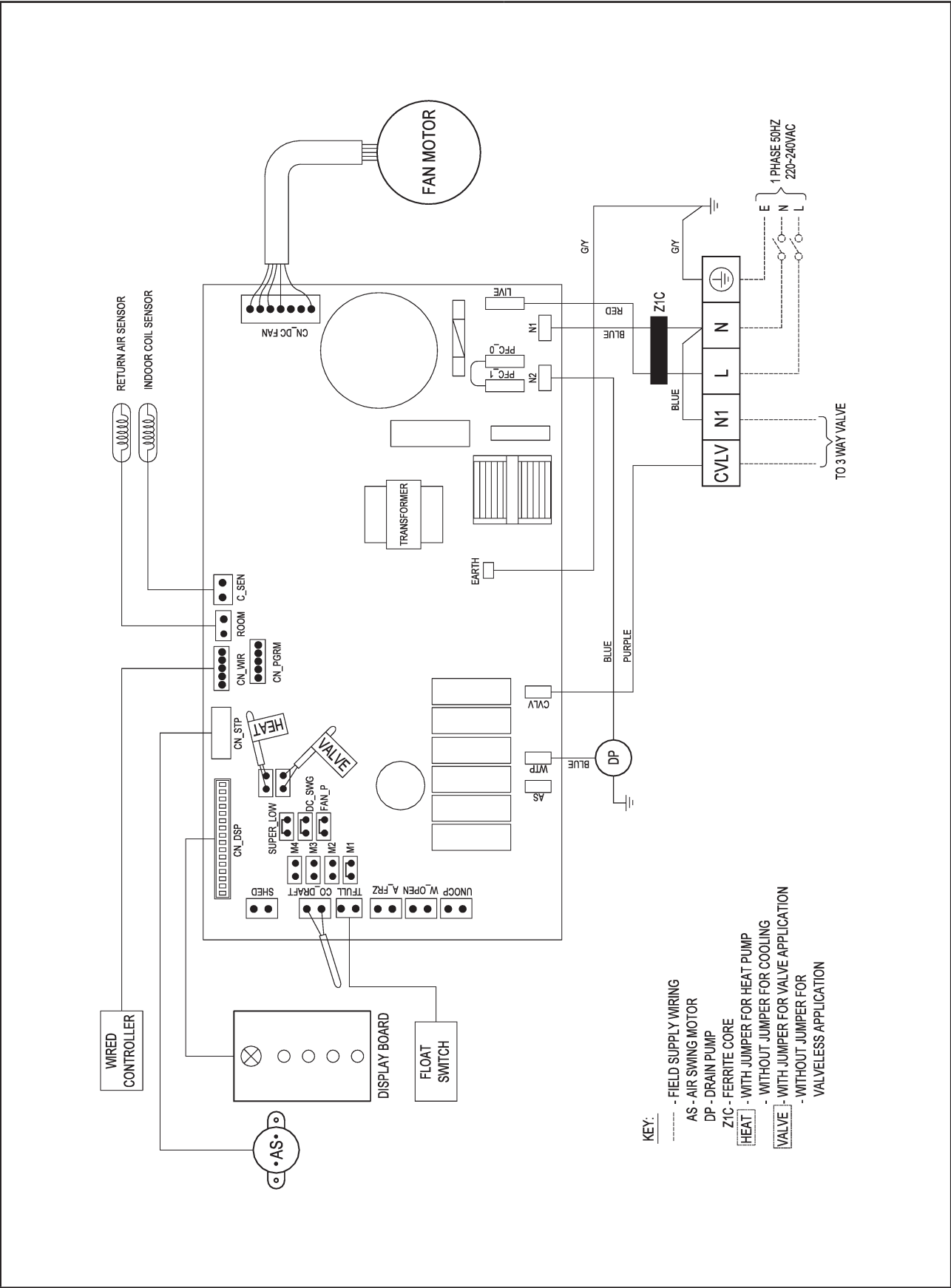
Model: FWJC6/8/9/11/13B



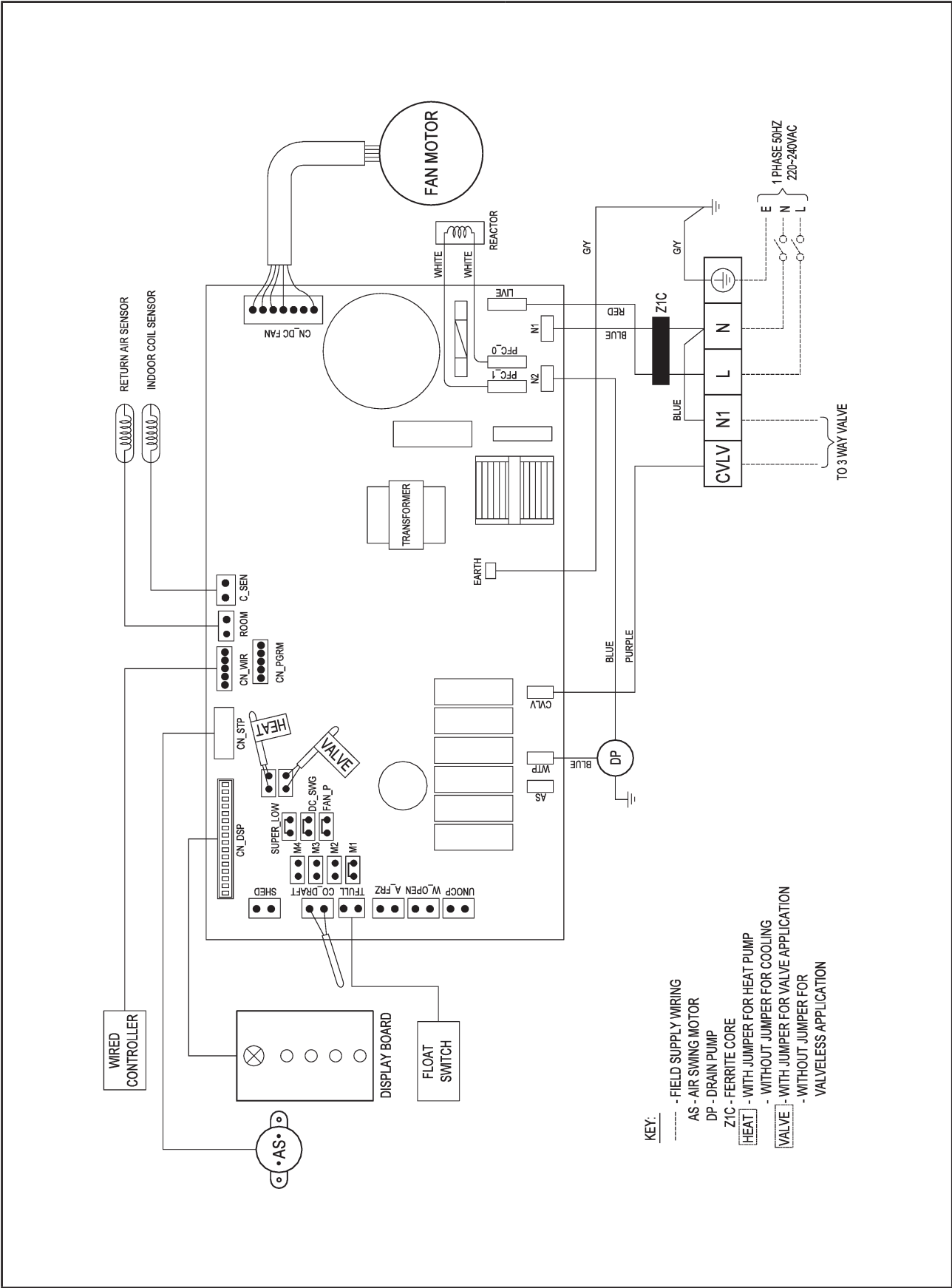
Model: FWJCC2/4/5B



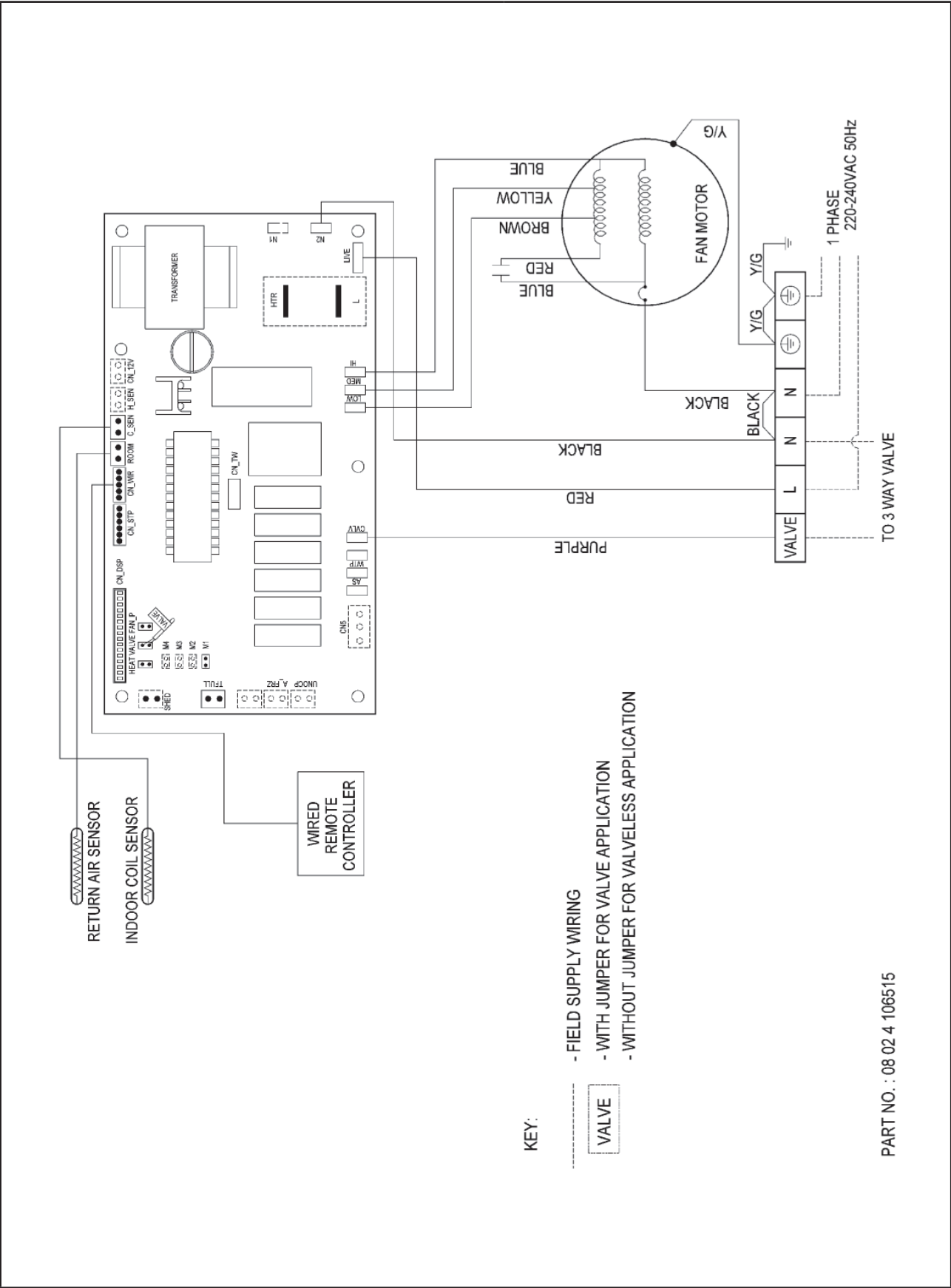
Model: FWKE05/08E



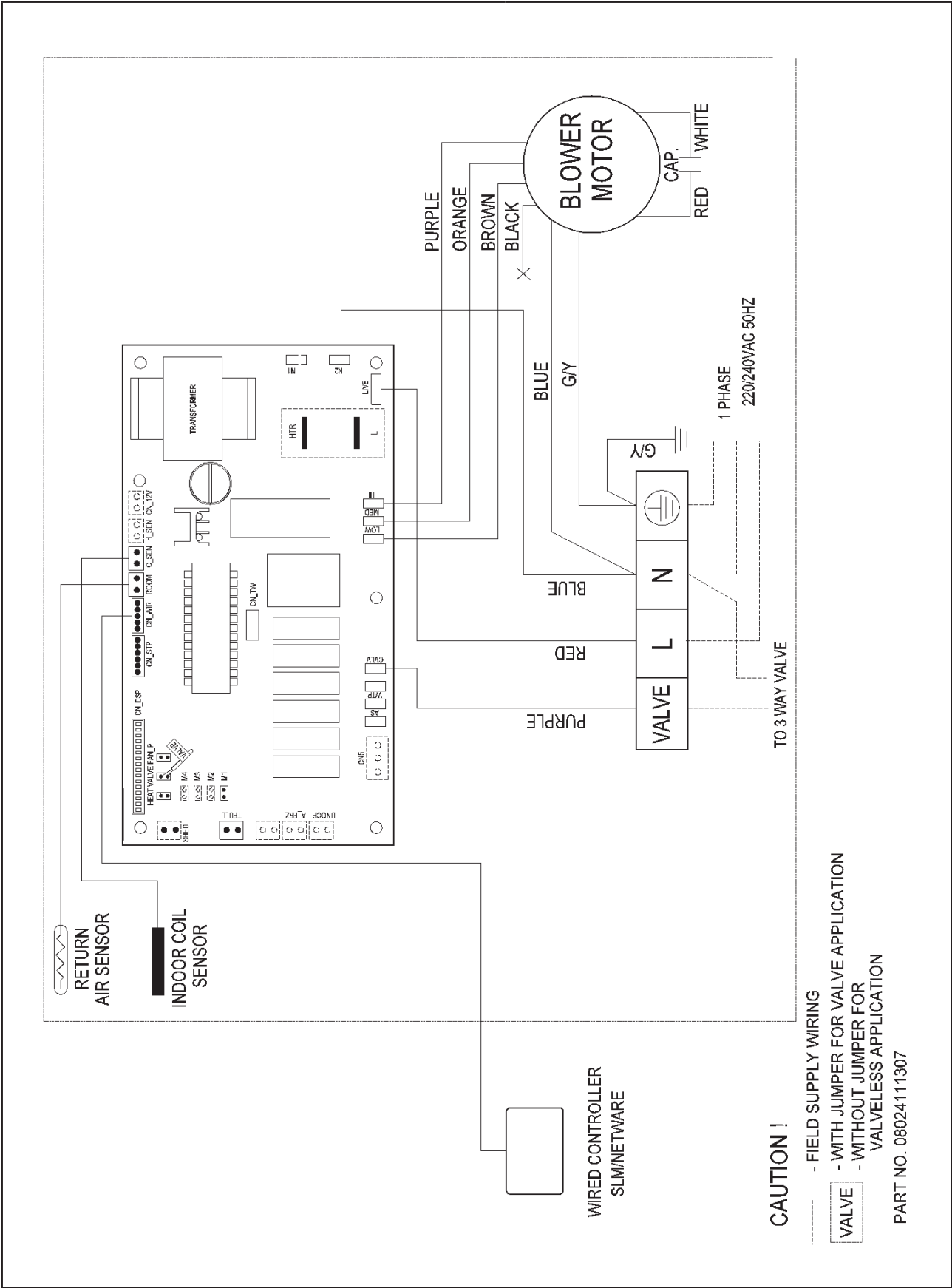
Model: FWKE11E



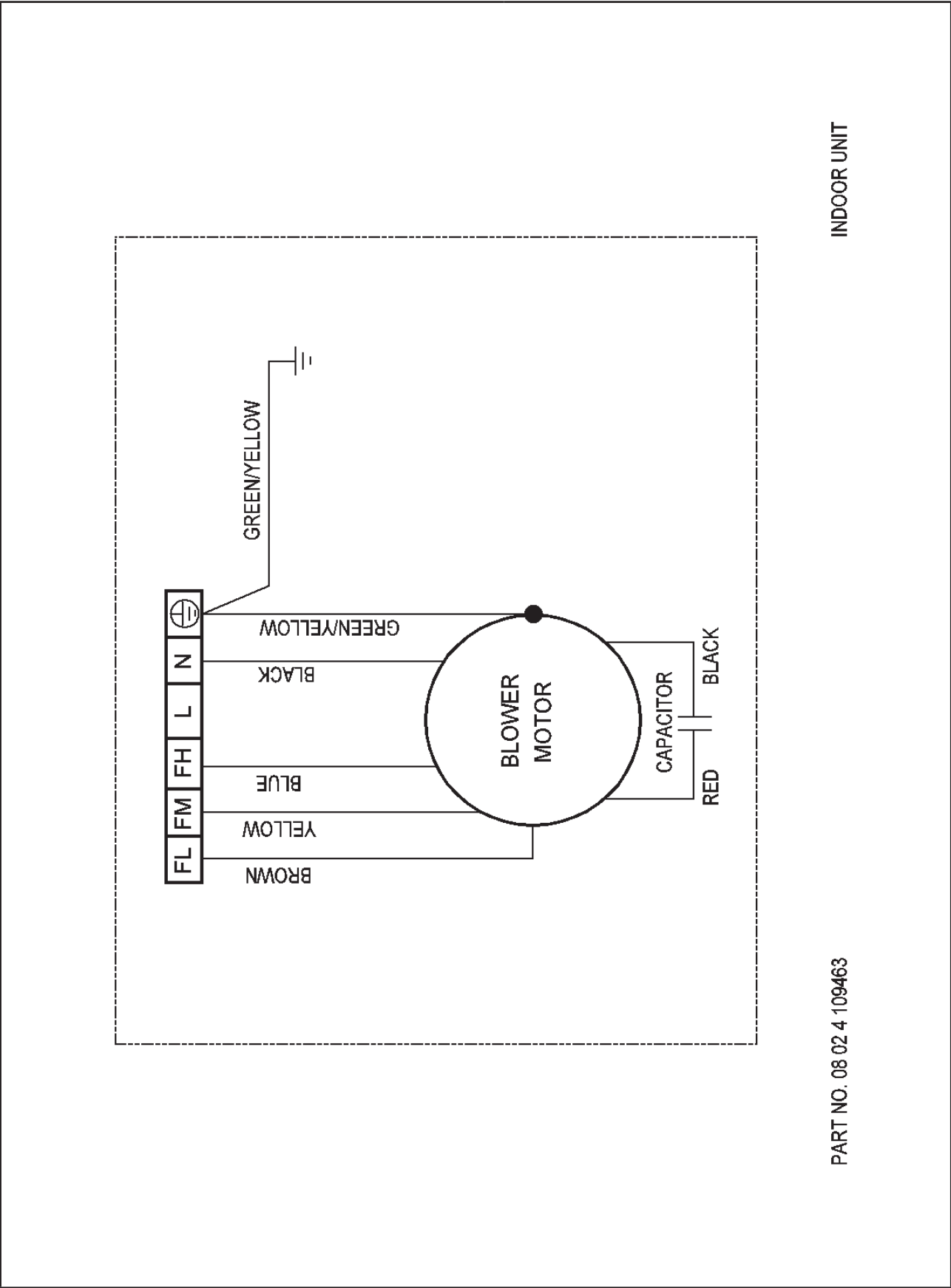
Model: FWPM3/4/6/7A (With Controller)



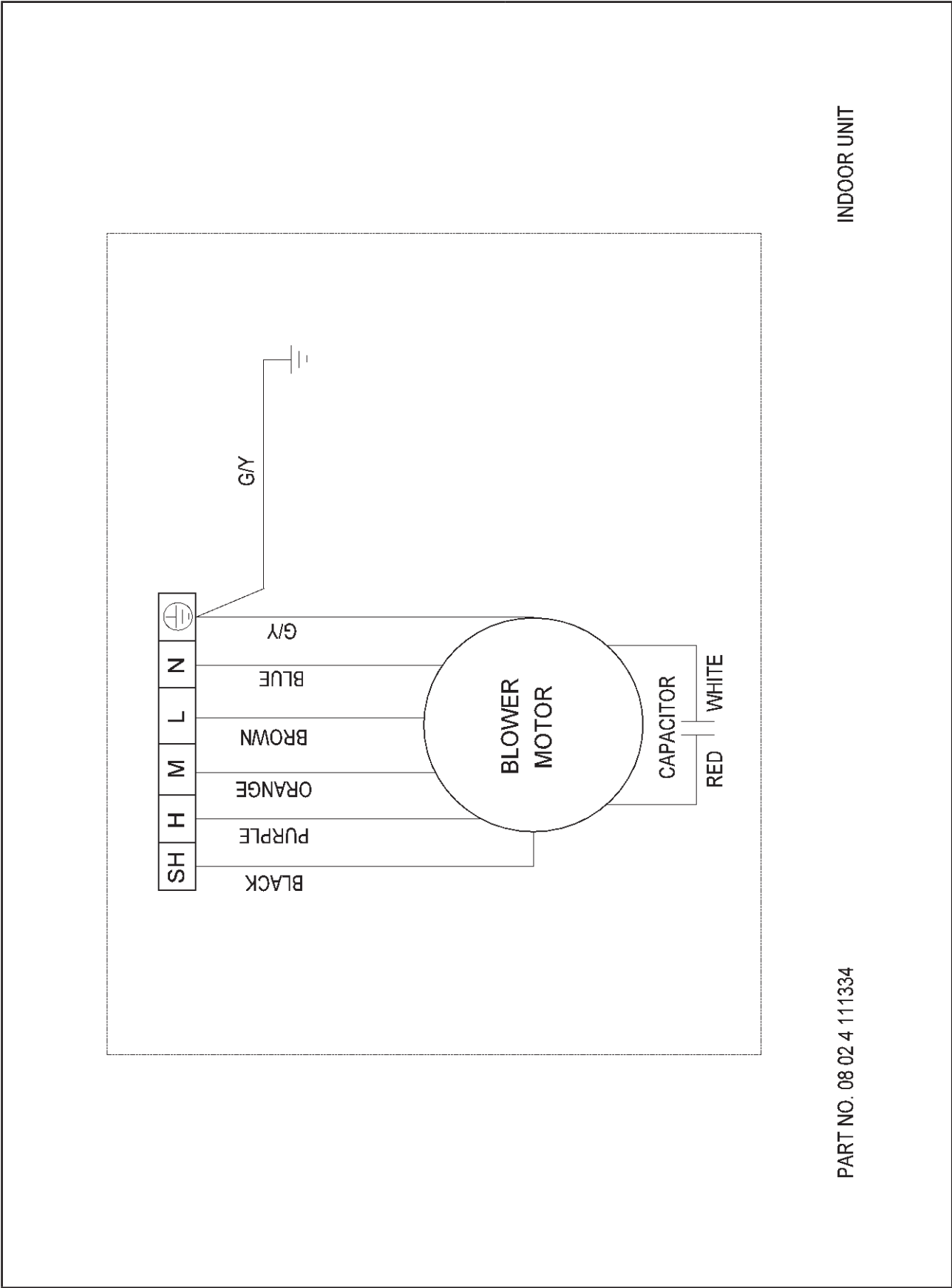
Model: FWPM9/11/12/14/16A (With Controller)



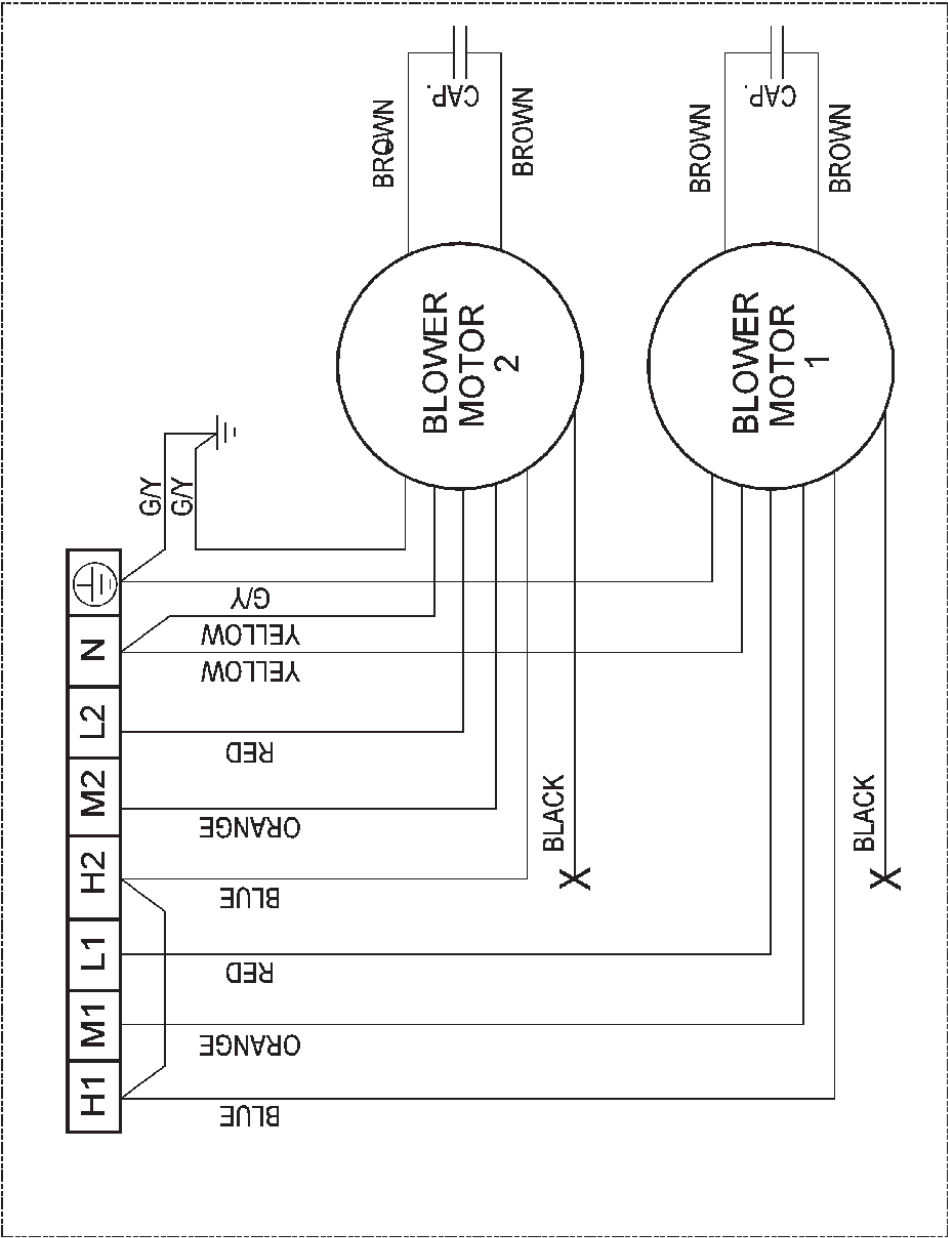
Model: FWPM3/4/6/7A (Without Controller)



Model: FWPM9/11/12/14/16A (Without Controller)



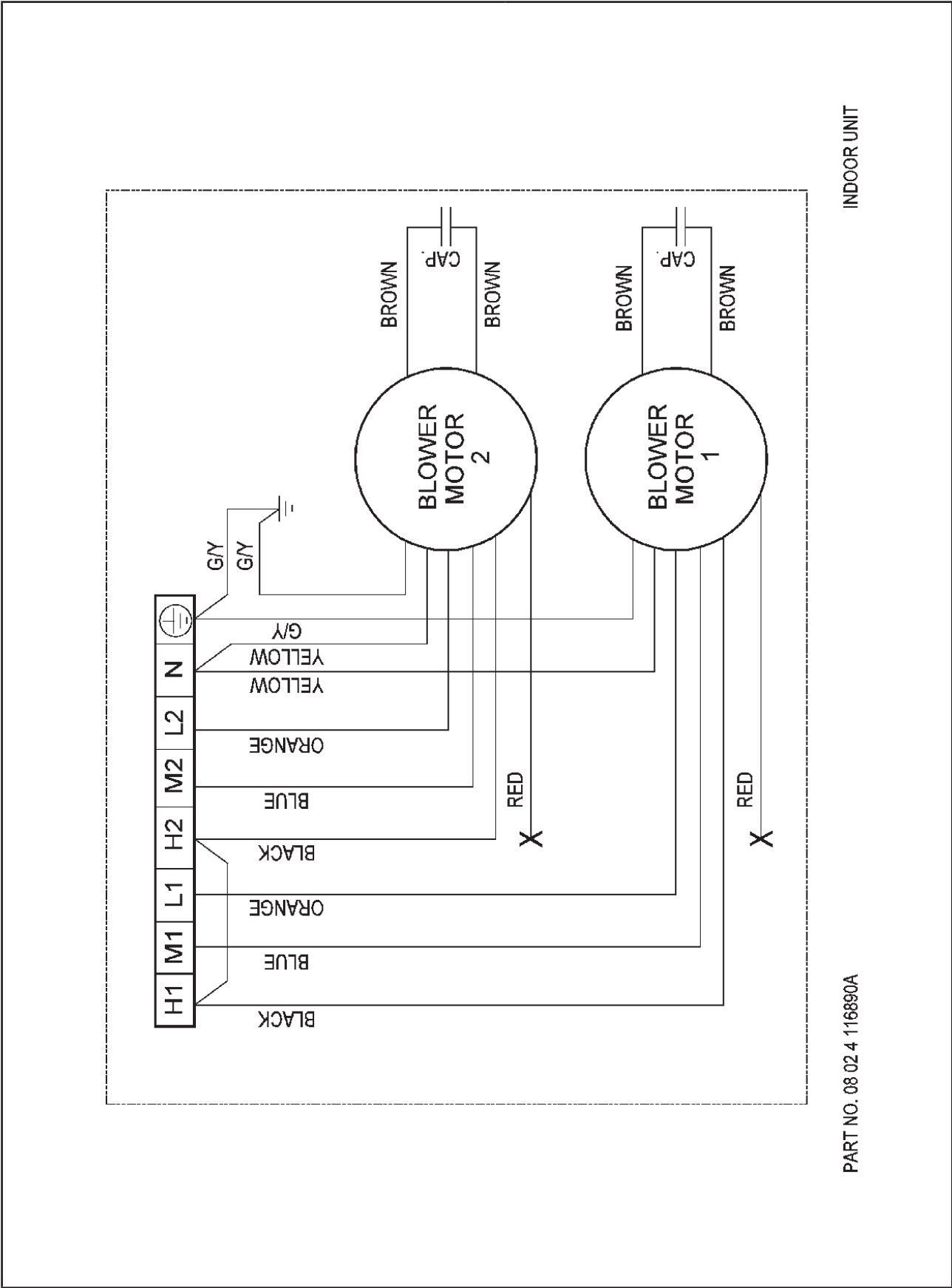
Model: UAHMM20A



PART NO. 08 02 4 116889A

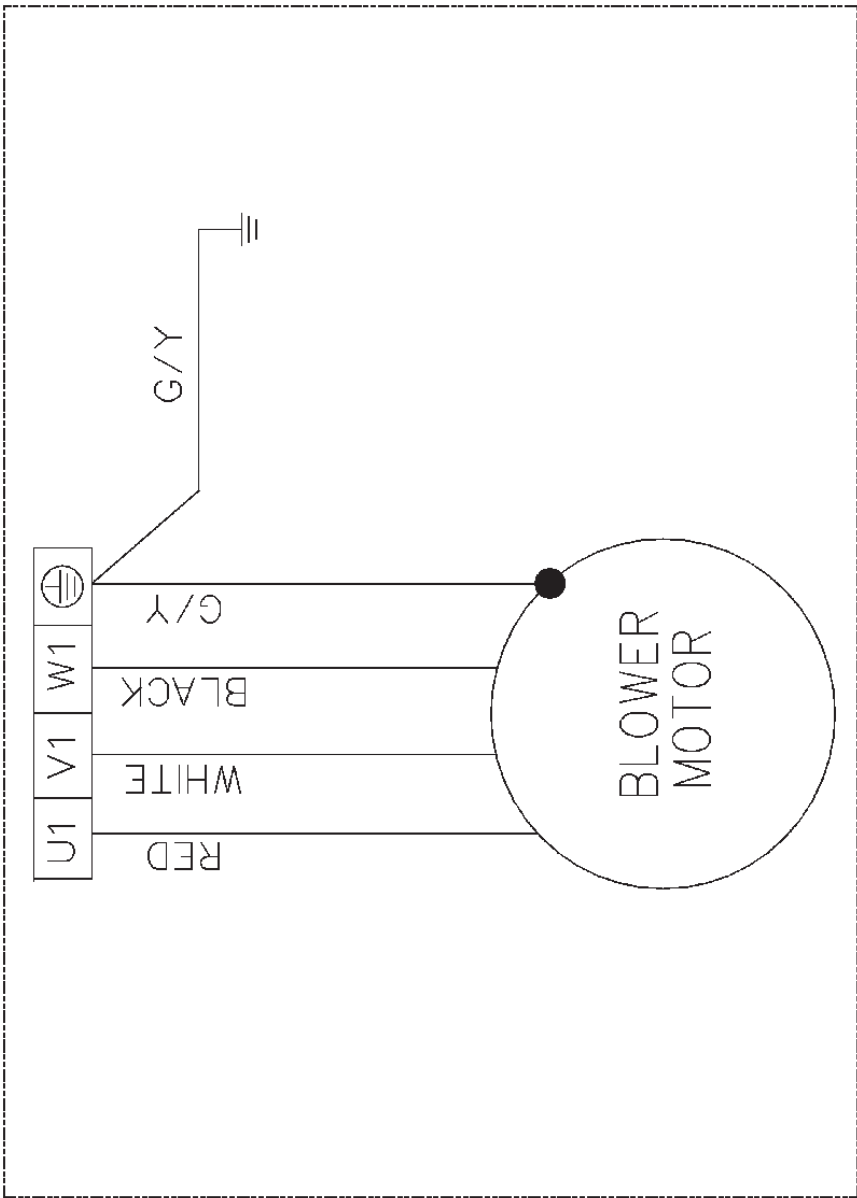
INDOOR UNIT

Model: UAHMM25A



PART NO. 08 02 4 116890A

Model: UAHMM30/40A



INDOOR UNIT

PART NO. 08 02 4 116193A

Service & Maintenance



Caution

Moving machinery and electrical power hazards. May cause severe personal injury or death. Disconnect from main power supply before servicing equipment.

The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedures	Recommended Schedule
Air Filter (Indoor Unit)	<ol style="list-style-type: none"> 1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with a neutral cleaning detergent. 2. Rinse the filter well and dry before placing it back onto the unit. 3. Note: Never use gasoline, volatile substances or chemicals to clean the filter. 	<p>At least once every 4 weeks.</p> <p>More frequently if necessary.</p>
Indoor Unit	<ol style="list-style-type: none"> 1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C) and a neutral detergent solution. 2. Note: Never use gasoline, volatile substances or chemicals to clean the indoor unit. 	<p>At least once every 4 weeks.</p> <p>More frequently if necessary.</p>
Condense Drain Pan & Pipe	<ol style="list-style-type: none"> 1. Check the cleanliness and clean it if necessary. 	Every 3 months.
Indoor Fan	Check if there is any abnormal noise.	When necessary.
Indoor Coil	<ol style="list-style-type: none"> 1. Check and remove the dirt between the fins. 2. Check and remove any obstacles which hinder air flowing into and out of the indoor unit. 	Every month.
Power Supply	<ol style="list-style-type: none"> 1. Check the voltage and current of the indoor unit. 2. Check the electrical wiring for any faulty contacts caused by loose connections, foreign matters, etc. Tighten the wires onto the terminal block if necessary. 	Every 2 months.
Fan Motor Oil	All motors are pre-lubricated and sealed at factory.	No maintenance required.
























Caution

Do not charge **OXYGEN, ACETYLENE OR OTHER FLAMMABLE** and poisonous gases into the unit when performing a leakage test or an air tight test. These gases could cause severe explosion and damage if expose to high temperature and pressure.

Troubleshooting

Model	Board
FWMT02/03/04/05/06C	50WJWXX
FWMJC6/8/9/11/13B	W3
FWMJCC2/4/5B	W2
FWPMM3/4/6/7/8/9/11/12/14/16	W2
UAHMM20/25/30/40	N/A

Self Diagnostic Table - 50WJWXX Board

	 COOL/HEAT (GREEN/RED)		Normal Operation/Fault Indication	Action	Error Code
	 Green		Cool mode	-	-
	 Red		Heat mode	-	-
			Timer on	-	-
			Sleep mode on	-	-
			Fan mode on	-	-
			Dry mode on	-	-
	 1 time		Room air sensor contact Loose/Short	Call your dealer	Blink E1
	 2 times		Indoor coil sensor open/short	Call your dealer	Blink E2
		 3 times	Pipe water temperature poor	-	Blink E4
		 1 time	Pipe water temperature bad	-	Blink E5
		 6 times	Hardware error (tact switch pin short)	Call your dealer	Blink E8
	 4 times		No feedback from indoor fan	Call your dealer	Blink E9

 ON

 ON or OFF

 Blinking

Self Diagnostic Table – W2 Board

Fault Indication	COOL LED	Error Code	Action
Room sensor error (short/open)	Blink 1 time	E1	Check room sensor connection/change room air sensor
Pipe water sensor error (short/open)	Blink 2 times	E2	Check pipe water sensor connection/change pipe water sensor
Water pump error	Blink 6 times	E6	Clear the clogging at drain pipe. If pump is not working, change the pump
Pipe water temperature fault	Blink 5 times	E5	Check chiller condition (not working or just started)
Window open activated*	Blink 3 times	-	-
Antifreeze mode activated*	Blink 7 times	-	-
Load shedding activated*	Blink 8 times	-	-

*Applicable for 4 pipes applications only.

Self Diagnostic Table – W3 Board

	Event	Power LED	Timer LED	Error Code
1.	Room Sensor Open or Short	Blink 1 time	-	Blink E1
2.	Pipe Water sensor Open or Short	Blink 2 times	-	Blink E2
3.	Pipe Water Temperature poor	Blink 3 times	-	Blink E4
4.	Pipe Water Temperature bad/fault	-	Blink 1 time	Blink E5
5.	Water Pump Fault	-	Blink 2 times	Blink E6
6.	Hardware Error (tact switch pin Short/M3 or M4 Mode with valveless section)	-	Blink 6 times	Blink E8
7.	Window Open activated*	Blink 6 times	-	-
8.	Antifreeze mode activated*	Blink 7 times	-	-
9.	Load Shedding activated*	Blink 8 times	-	-

*Only applicable for 4-pipes system.

Self Diagnostic Table – W3DC Board

	Event	Power LED	Timer LED	Error Code
1.	Room Sensor Open or Short	Blink 1 time	-	Blink E1
2.	Pipe Water sensor Open or Short	Blink 2 times	-	Blink E2
3.	Pipe Water Temperature poor	Blink 3 times	-	Blink E4
4.	Pipe Water Temperature bad/fault	-	Blink 1 time	Blink E5
5.	Water Pump Fault	-	Blink 2 times	Blink E6
6.	Window Open activated*	Blink Cool 6 times	-	-
7.	Antifreeze mode activated*	Blink Cool 7 times	-	-
8.	Load Shedding activated*	Blink Cool 8 times	-	-
9.	Hardware Error	-	Blink 6 times	Blink E8
10.	No feedback from indoor fan	Blink Cool 4 times		Blink E9

*Only applicable for 4-pipes system.