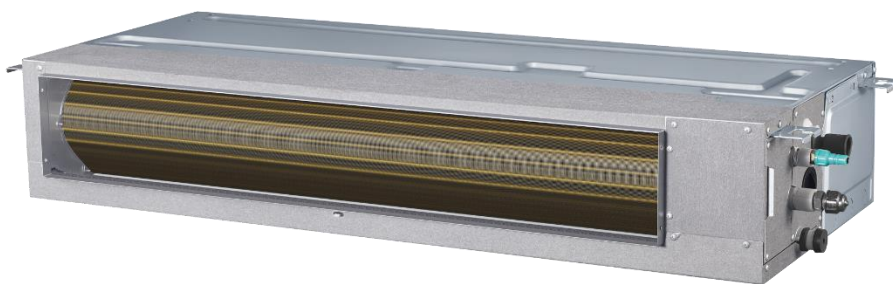
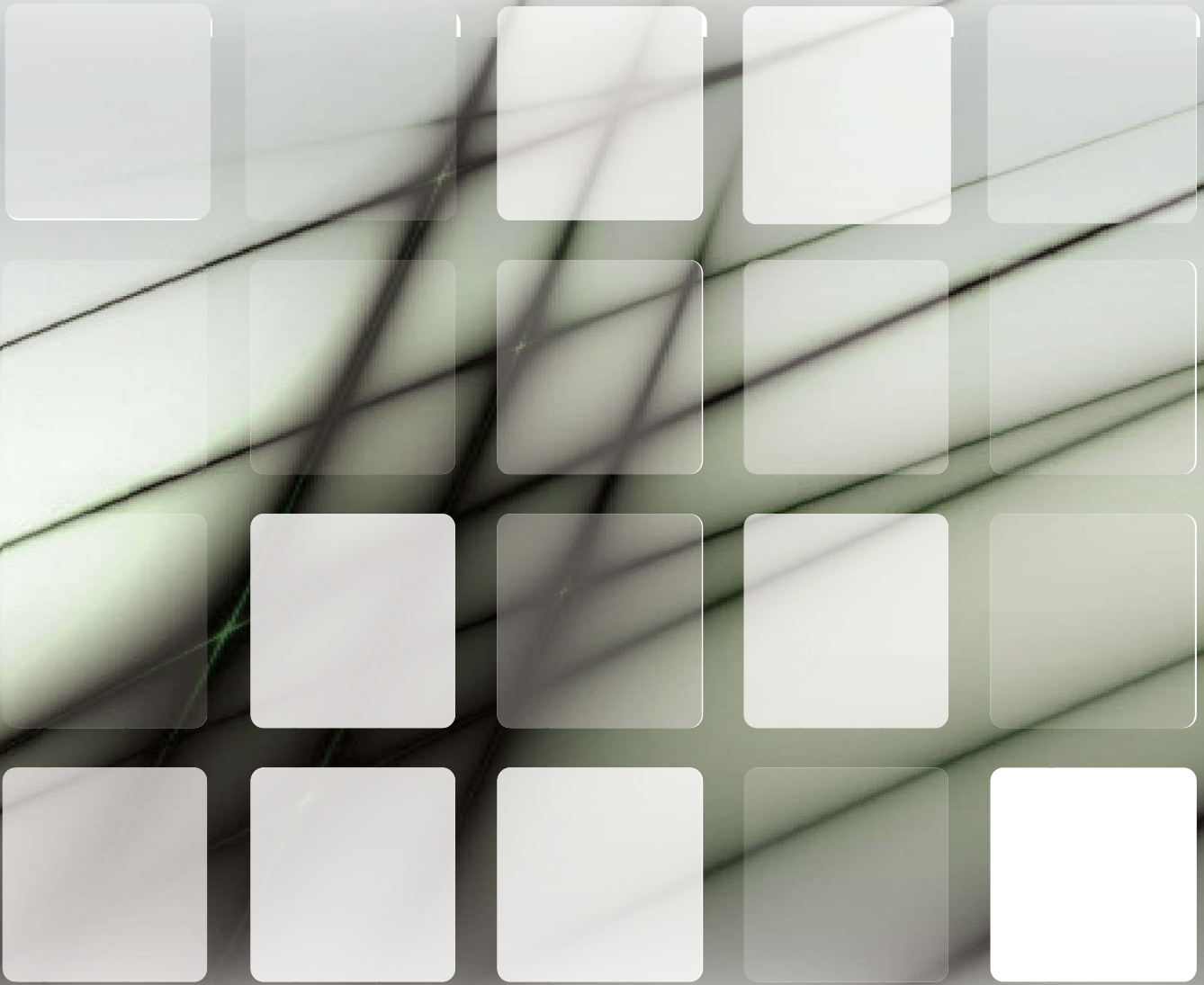


# VESP Series

## Arc Duct Fan Coil VRF Indoor Unit Technical Manual

**220~240V/1/50-60Hz**



# Arc Duct

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# OMEGA Indoor Units

## 1 Specifications

Table 1.1: VESP006(008,010 )TOA specifications

Model			VESP006T0A-DCV015	VESP008T0A-DCV022	VESP010T0A-DCV028
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	1.5	2.2	2.8
		kBtu/h	5.1	7.5	9.6
	Power input	W	21	22	28
Heating <sup>2</sup>	Capacity	kW	1.8	2.5	3.2
		kBtu/h	6.1	8.5	10.9
	Power input	W	21	22	28
Fan motor type			DC		
Indoor coil	Number of rows <sup>3</sup>		2&3	2&3	2&3
	Tube pitch <sup>3</sup>	mm	14&18		
	Fin spacing and type	mm	1.33 Hydrophilic aluminum		
	Tube OD and type	mm	Φ5 Inner-groove		
	Dimensions (L×H×W)	mm	380×170×95		
	Number of circuits		4	4	4
Air flow rate <sup>4</sup>		m <sup>3</sup> /h	340/335/329/320/307 /298/290	370/347/339/322/314 /306/295	460/431/413/380/351 /323/300
External static pressure <sup>5</sup>		Pa	10 (10-50)		
Sound pressure level <sup>6</sup>		dB(A)	27/26/25.5/24.5/23.5 /22.5/22	28/27.5/26.5/25.5/24.5 /23.5/22	30/29.5/28.5/27.5/26 /24.5/22
Sound power level <sup>6</sup>		dB(A)	43.5/43/42.5/42/41.5/41 /40	46/45/44/43/42/41/40	50.5/49/47/45.5/43.5 /42/40
Unit	Net dimensions <sup>7</sup> (W×H×D)	in/mm	21 5/8x 7 7/8x 17 3/4 (550×199×450)		
	Packed dimensions (W×H×D)	in/mm	28 1/8x 10x 20 5/8 (715×255×525)		
	Net/Gross weight	lbs/kg	25.35(11.5)/29.76(13.5)		
Refrigerant type			R410A/R32		
Throttle type			Electronic expansion valve		
Design pressure (H/L)		MPa	4.4/1.5		
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		
	Drain pipe	mm	OD Φ25		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Arc Duct adopts a brand-new special-shaped heat exchanger with different number of rows and different Tube pitch at different positions.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- All specifications are measured at standard external static pressure.
- G1 air filter is standard for Arc Duct.

Table 1.2: VESP012(015,019,024 )TOA specifications

Model			VESP012TOA-DCV036	VESP015TOA-DCV045	VESP019TOA-DCV056	VESP024TOA-DCV071
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling <sup>1</sup>	Capacity	kW	3.6	4.5	5.6	7.1
		kBtu/h	12.3	15.4	19.1	24.2
	Power input	W	31	43	58	65
Heating <sup>2</sup>	Capacity	kW	4	5	6.3	8
		kBtu/h	13.7	17.1	21.5	27.3
	Power input	W	31	43	58	65
Fan motor type			DC			
Indoor coil	Number of rows <sup>3</sup>		2&3	2&3	2&3	2&3
	Tube pitch <sup>3</sup>	mm	14&18			
	Fin spacing and type	mm	1.33 Hydrophilic aluminum			
	Tube OD and type	mm	Φ5 Inner-groove			
	Dimensions (L×H×W)	mm	530×170×95	730×170×95		930×170×95
	Number of circuits		4	6	6	8
Air flow rate <sup>4</sup>	m <sup>3</sup> /h	605/557/508/453 /414/365/320	800/770/701/629 /557/506/435	900/800/761/682 /603/549/470	1145/1033/957/ 860/763/671/580	
External static pressure <sup>5</sup>	Pa	10 (10-50)				
Sound pressure level <sup>6</sup>	dB(A)	30/29.5/28.5/27.5 26.5/25.5/25	33/32.5/32/30.5/ 29/27.5/26	36/34.5/33.5/32.5 /31/29/27	37/35/34/32.5/31 /30/29	
Sound power level	dB(A)	50.5/49.5/48/47 /45.5/44.5/43	52/50.5/49/47.5 /46/44.5/43	56/54/52/50/48 /46/44	57/55.5/54/52/ 50.5/49/47	
Unit	Net dimensions <sup>7</sup> (W×H×D)	in/mm	27 1/2x 7 7/8x 17 3/4 (700×199×450)	35 1/2x 7 7/8x 17 3/4 (900×199×450)	43 3/8x 7 7/8x 17 3/4 (1100×199×450)	
	Packed dimensions (W×H×D)	in/mm	34x 10x 20 5/8 (865×255×525)	42x 8 7/8x 20 5/8 (1065×255×525)	51 1/8x 10x 20 5/8 (1300×255×525)	
	Net/Gross weight	lbs/kg	28.66(13.0)/34.17(15.5)	36.38(16.5)/42.99(19.5)	44.09(20)/51.81(23.5)	
Refrigerant type			R410A/R32			
Throttle type			Electronic expansion valve			
Design pressure (H/L)		MPa	4.4/1.5			
Pipe	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			Φ9.52/Φ15.9
connections	Drain pipe	mm	OD Φ25			

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Arc Duct adopts a brand-new special-shaped heat exchanger with different number of rows and different Tube pitch at different positions.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- All specifications are measured at standard external static pressure.
- G1 air filter is standard for Arc Duct.

# OMEGA Indoor Units

Table 1.3: VESP027(031,038 )TOA specifications

Model			VESP027TOA-DCV080	VESP031TOA-DCV090	VESP038TOA-DCV112
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	8	9	11.2
		kBtu/h	27.3	30.7	38.2
	Power input	W	108	108	128
Heating <sup>2</sup>	Capacity	kW	9	10	12.5
		kBtu/h	30.7	34.1	42.7
	Power input	W	108	108	128
Fan motor type			DC		
Indoor coil	Number of rows <sup>3</sup>		2&3	2&3	2&3
	Tube pitch <sup>3</sup>	mm	14&18		
	Fin spacing and type	mm	1.33 Hydrophilic aluminum		
	Tube OD and type	mm	Φ5 Inner-groove		
	Dimensions (L×H×W)	mm	1405×170×95		
	Number of circuits		12		
Air flow rate <sup>4</sup> (20Pa)		m <sup>3</sup> /h	1400/1327/1249/1175 /1095/1026/960	1400/1327/1249/1175 /1095/1026/960	1620/1522/1433/1343 /1254/1170/1080
External static pressure <sup>5</sup>		Pa	20(10-80)		
Sound pressure level <sup>6</sup> (20Pa)		dB(A)	36.5/35.5/34/33/32/31.5 /30.5	36.5/35.5/34/33/32/31.5 /30.5	39.5/38/36.5/35/34/32.5 /31.5
Sound power level(20Pa)		dB(A)	57/56/54.5/53.5/52/51 /49.5	57/56/54.5/53.5/52/51 /49.5	60.5/59/57.5/55.5/54 /52.5/50.5
Unit	Net dimensions <sup>7</sup> (W×H×D)		in/mm 63x 7 7/8x 17 3/4 (1600×199×450)		
	Packed dimensions (W×H×D)		in/mm 70x 9 7/8x 20 5/8 (1780×250×525)		
	Net/Gross weight		lbs/kg 61.73(28)/71.65(32.5)		
Refrigerant type			R410A/R32		
Throttle type			Electronic expansion valve		
Design pressure (H/L)		MPa	4.4/1.5		
Pipe connections	Liquid/Gas pipe		mm Φ9.52/Φ15.9		
	Drain pipe		mm OD Φ25		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Arc Duct adopts a brand-new special-shaped heat exchanger with different number of rows and different Tube pitch at different positions.
- Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
- Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
- Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
- The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
- All specifications are measured at standard external static pressure.
- G1 air filter is standard for Arc Duct.

## 2 Dimensions

### 2.1 Unit Dimensions

Figure 2.1: VESP006(008,010,012,015,019,024,027,031,038)T0A External dimension, air outlet size, and size of fresh air outlet: (unit: mm)

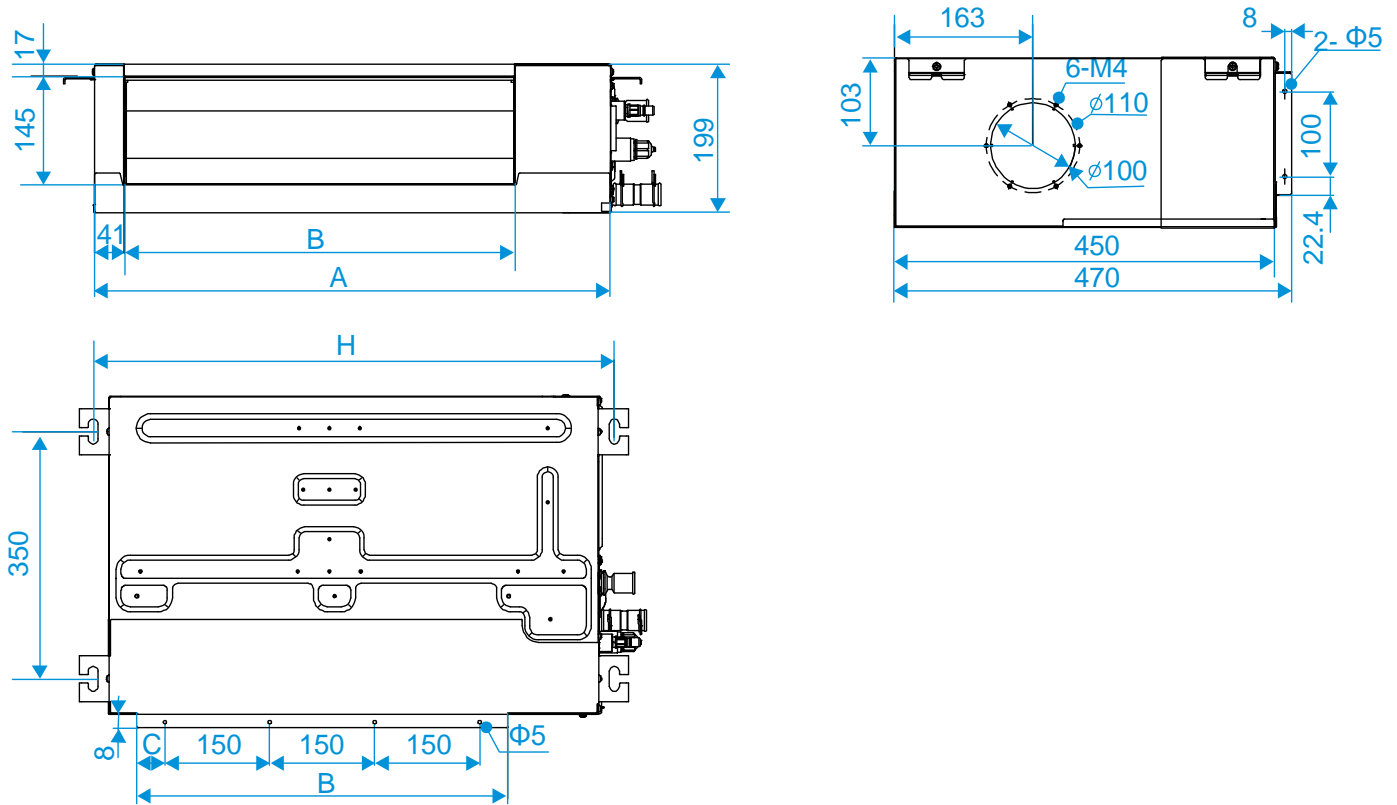


Figure 2.2: Size of return air inlet (rear return air mode): (unit: mm)

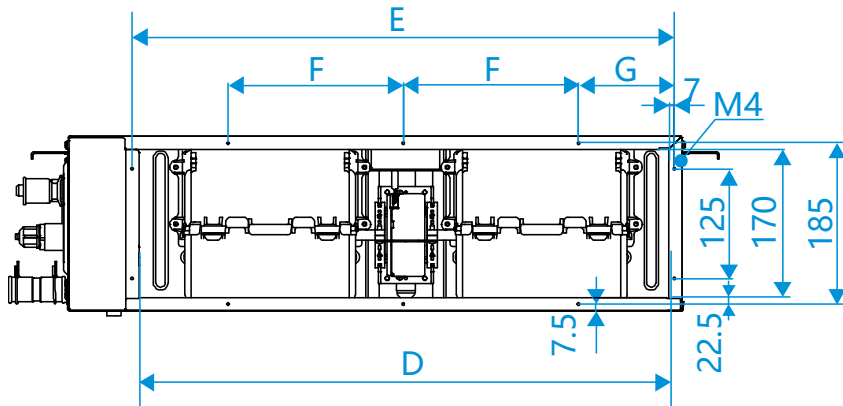
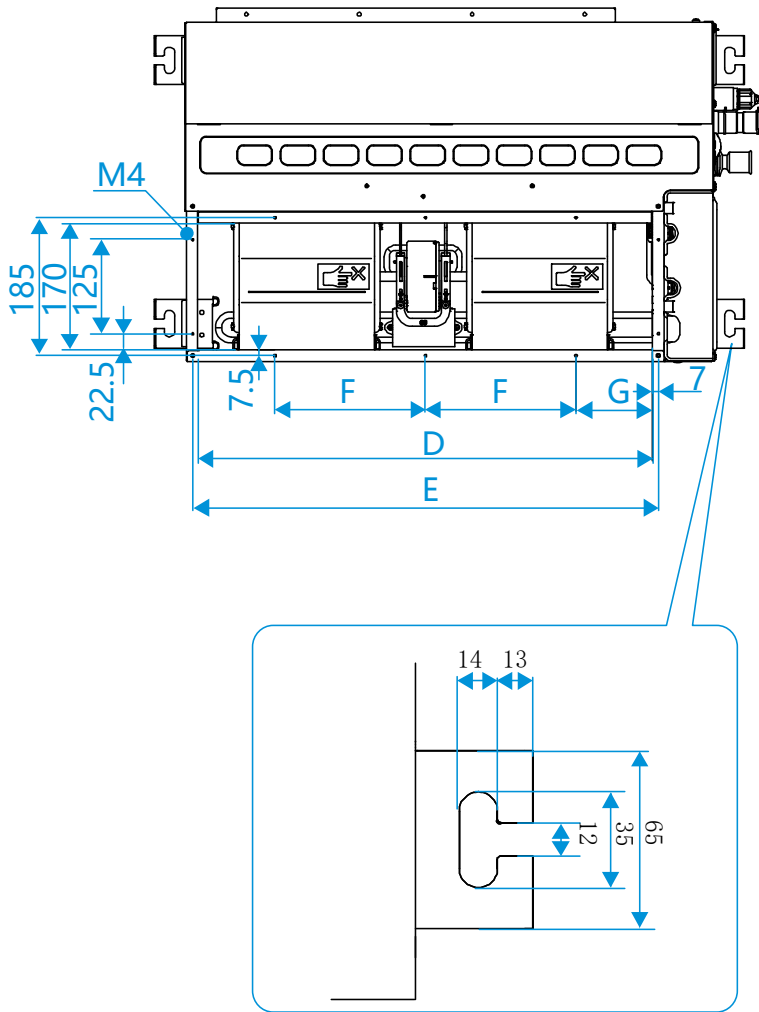


Table 2.1: Letter-Size Correspondence Table: (unit: mm)

Capacity (kW)	A	B	C	D	E	F	G	H	I	J
VESP006T(008,010)T0A	550	380	40	455	469	250	109.5	595	7/16-20 UNF	3/4-16 UNF
VESP012T0A-DCV036	700	530	40	605	619	200	109.5	745		
VESP015(019)T0A	900	730	65	805	819	200	109.5	945	5/8-18 UNF	7/8-14 UNF
VESP024T0A-DCV071	1100	930	15	1005	1019	200	109.5	1145		
VESP027(031,038)T0A	1600	1400	25	1505	1519	200	159.5	1645		

# OMEGA Indoor Units

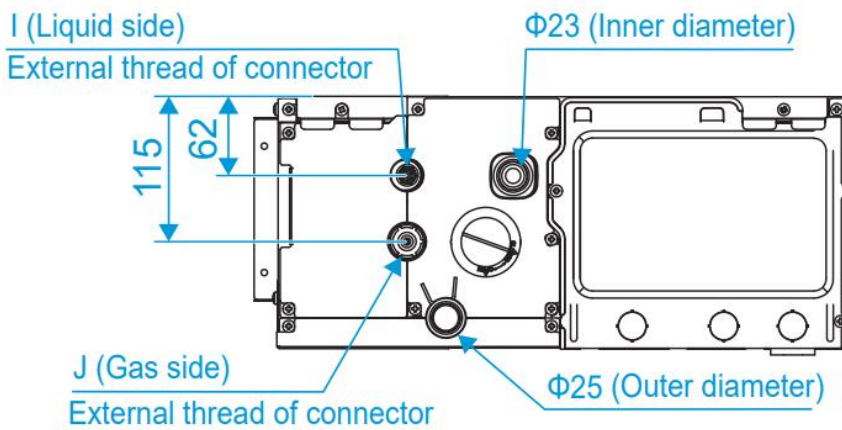
Figure 2.3: VESP006(008,010,012,015,019,024,027,031,038) Size of return air inlet (bottom return air mode) and distance between lifting lugs:(unit: mm)



Notes:

1. meaning of letters refer to Table 2.1

Figure 2.4: Piping and water pipe size:(unit: mm)



Notes:

1. meaning of letters refer to Table 2.1

### 3 Unit Placement

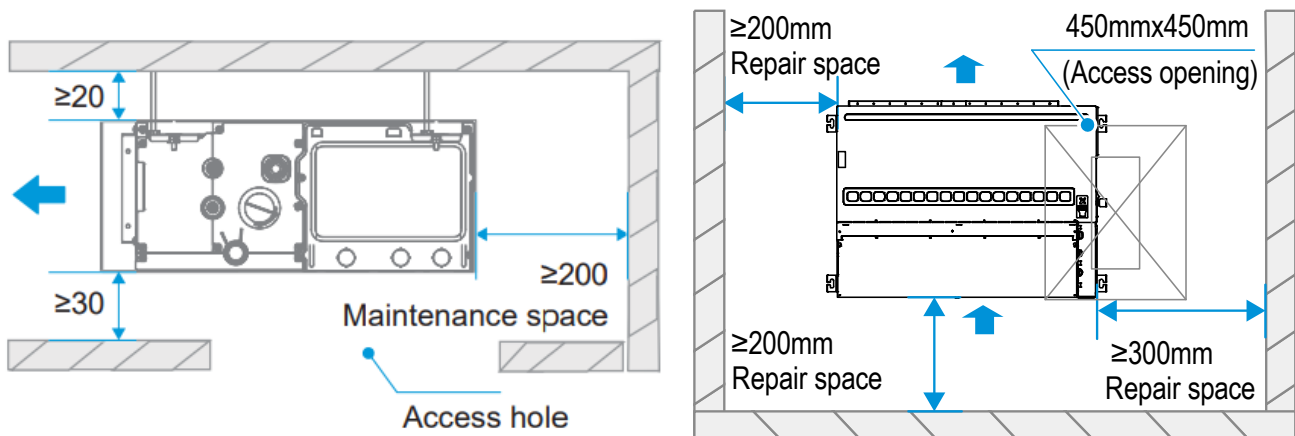
#### 3.1 Placement Considerations

Unit placement should take account of the following considerations:

- Units should not be installed in the following locations:
  - A place filled with mineral oil, fumes or mist, like a kitchen.
  - A place where there are corrosive gases, such as acid or alkaline gases..
  - A place exposed to combustible gases and using volatile combustible gases such as diluent or gasoline.
  - A place where there is equipment emitting electromagnetic radiation.
  - A place where there is a high salt content in the air like a coast.
  - Do not use the air conditioner in an environment where an explosion may occur.
  - Places like in vehicles or cabin rooms.
  - Factories with major voltage fluctuations in the power supplies.
  - Other special environmental conditions.
- Units should be installed in positions where:
  - Ensure that the airflow in and out of the IDU is reasonably organized to form an air circulation in the room.
  - Ensure IDU maintenance space.
  - The nearer the drainage pipe and copper pipe are to the ODU, the lower the pipe cost is.
  - Prevent the air conditioner from blowing directly to the human body.
  - The closer the wiring to the power cabinet, the lower the wiring cost is.
  - Keep the air-conditioning return air away from the setting sun of the room.
  - Be careful not to interfere with the light tank, fire pipe, gas pipe and other facilities.
  - The IDU should not be lifted in the places like load-bearing beam and columns that affect the structural safety of the house.
  - The wired controller and the IDU should be in the same installation space; otherwise, the sampling point setting of the wired controller need to be changed.

#### 3.2 Space Requirements

Figure 3.1: VESP006(008,010,012,015,019,024,027,031,038) Arc Duct space requirements (unit: mm)



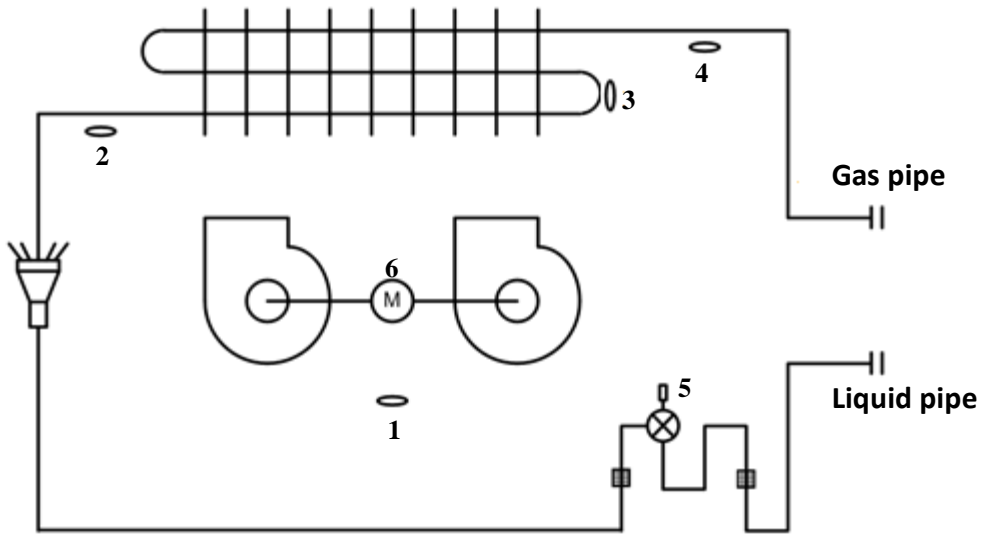
Notes:

1. The centerline of the maintenance hole should be in the same position as the centerline of the indoor unit.



## Units 4 Piping Diagram

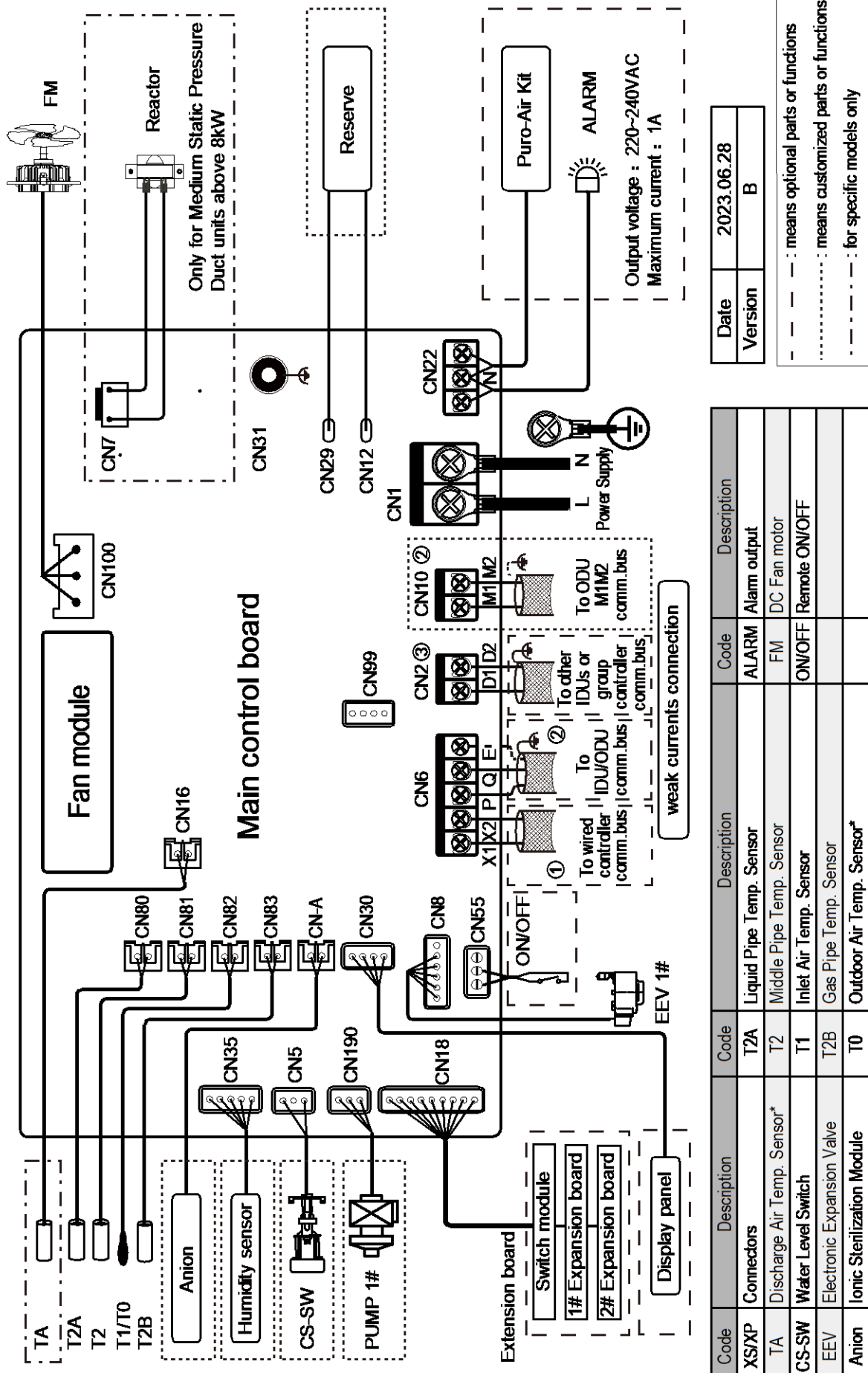
Figure 4.1: VESP006(008,010,012,015,019,024,027,031,038) Arc Duct piping diagram



Legend	Code	Description
1	T1	Inlet Air Temp. Sensor
2	T2A	Liquid Pipe Temp. Sensor
3	T2	Middle Pipe Temp. Sensor
4	T2B	Gas Pipe Temp. Sensor
5	EEV	Electronic Expansion Valve
6	FAN	DC Fan motor

5 Wiring Diagram

Figure 5.1: VESP006(008,010,012,015,019,024,027,031,038) Arc Duct wiring diagram



\* Indicates that this sensor is only available for Fresh Air Processing Unit

### Caution

- All installation, servicing and maintenance must be carried out by competent and suitably qualified, certified and accredited professionals and in accordance with all applicable legislation.
- Units should be grounded in accordance with all applicable legislation. Metal and other conductive components should be insulated in accordance with all applicable legislation.
- Power supply wiring should be securely fastened at the power supply terminals – loose power supply wiring would represent a fire risk.
- After installation, servicing or maintenance, the electric control box cover should be closed. Failing to close the electric control box cover risks fire or electric shock.
- The dotted lines indicate the field wiring or optional function.
- PQ and M1M2 communication ports both are used for indoor and outdoor communication, and only one of them can be used at a time. Meanwhile, be sure to connect the same communication ports (PQ to PQ; M1M2 to M1M2) in case of damage of the main control board.
- D1D2 communication ports are used for group control communication. When connecting the group controller, the D1D2 port of the indoor units that are to be group controlled must be connected in daisy chain, and the group controller must be connected to the X1X2 port of one of the indoor units in the group control, and set to group control mode. In addition, D1D2 communication ports can also be connected to the central controller.

## 6 Capacity Tables

### 6.1 Cooling Capacity Table

Table 6.1: VESP006(008,010,012,015,019,024,027,031,038)Arc Duct cooling capacity

Model	Indoor air temperature (°C WB/DB)													
	14/20		16/23		18/26		19/27		20/28		22/30		24/32	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
VESP006T0A-DCV015	1.4	1.3	1.5	1.4	1.5	1.3	1.5	1.3	1.6	1.3	1.6	1.2	1.6	1.1
VESP008T0A-DCV022	2.0	1.9	2.1	1.9	2.2	1.9	2.2	1.8	2.3	1.8	2.3	1.7	2.4	1.7
VESP010T0A-DCV028	2.5	2.3	2.7	2.4	2.8	2.4	2.8	2.3	2.9	2.3	2.9	2.2	3.0	2.1
VESP012T0A-DCV036	3.2	3.0	3.4	3.1	3.6	3.1	3.6	3.0	3.7	3.0	3.8	2.8	3.9	2.7
VESP015T0A-DCV045	4.0	3.7	4.3	3.8	4.5	3.9	4.5	3.7	4.6	3.6	4.7	3.5	4.8	3.3
VESP019T0A-DCV056	5.0	4.6	5.3	4.7	5.6	4.8	5.6	4.6	5.7	4.5	5.8	4.3	6.0	4.1
VESP024T0A-DCV071	6.3	5.8	6.7	5.9	7.0	6.0	7.1	5.8	7.2	5.7	7.4	5.4	7.6	5.2
VESP027T0A-DCV080	7.1	6.3	7.6	6.5	7.9	6.6	8.0	6.5	8.1	6.3	8.3	6.0	8.5	5.8
VESP031T0A-DCV090	8.0	7.1	8.5	7.3	8.9	7.4	9.0	7.3	9.1	7.1	9.4	6.8	9.6	6.5
VESP038T0A-DCV112	9.9	8.8	10.6	9.1	11.1	9.3	11.2	9.1	11.3	8.8	11.6	8.4	11.9	8.1

Abbreviations:

TC: Total capacity (kW)

SC: Sensible capacity(kW)

Notes:

1. Shaded cells indicate rating condition.

6.2 Heating Capacity Table

Table 6.2: VESP006(008,010,012,015,019,024,027,031,038) Arc Duct heating capacity

Model	Indoor air temperature (°C DB)					
	16	18	20	21	22	24
	SHC	SHC	SHC	SHC	SHC	SHC
VESP006T0A-DCV015	1.9	1.9	1.8	1.7	1.7	1.6
VESP008T0A-DCV022	2.7	2.7	2.5	2.4	2.4	2.2
VESP010T0A-DCV028	3.4	3.4	3.2	3.1	3.0	2.8
VESP012T0A-DCV036	4.2	4.2	4.0	3.8	3.8	3.5
VESP015T0A-DCV045	5.3	5.3	5.0	4.8	4.7	4.4
VESP019T0A-DCV056	6.7	6.6	6.3	6.1	5.9	5.5
VESP024T0A-DCV071	8.5	8.4	8.0	7.8	7.5	7.0
VESP027T0A-DCV080	9.5	9.5	9.0	8.7	8.5	7.8
VESP031T0A-DCV090	10.6	10.5	10.0	9.7	9.4	8.8
VESP038T0A-DCV112	13.3	13.1	12.5	12.1	11.8	10.9

Abbreviations:

SHC: Sensible Heat Capacity

Notes:

1. Shaded cells indicate rating condition.

# OMEGA Indoor Units

## 7 Electrical Characteristics

Table 7.1: VESP006(008,010,012,015,019,024,027,031,038) Arc Duct electrical characteristics

Model name	Power supply						Indoor Fan Motor	
	Hz	Volts	Min. volts	Max. volts	MCA	MFA	Rated motor output (W)	FLA
VESP006T0A-DCV015	50/60	220-240	198	264	0.88	15	20	0.70
VESP008T0A-DCV022	50/60	220-240	198	264	0.88	15	20	0.70
VESP010T0A-DCV028	50/60	220-240	198	264	0.88	15	20	0.70
VESP012T0A-DCV036	50/60	220-240	198	264	0.94	15	20	0.75
VESP015T0A-DCV045	50/60	220-240	198	264	1.10	15	30	0.85
VESP019T0A-DCV056	50/60	220-240	198	264	1.10	15	30	0.85
VESP024T0A-DCV071	50/60	220-240	198	264	1.20	15	50	0.94
VESP027T0A-DCV080	50/60	220-240	198	264	1.70	15	60	1.35
VESP031T0A-DCV090	50/60	220-240	198	264	1.70	15	60	1.35
VESP038T0A-DCV112	50/60	220-240	198	264	1.70	15	60	1.35

Abbreviations:

MCA: Minimum Circuit Amps

MFA: Maximum Fuse Amps

FLA: Full Load Amps

## 8 Sound Levels

### 8.1 Overall

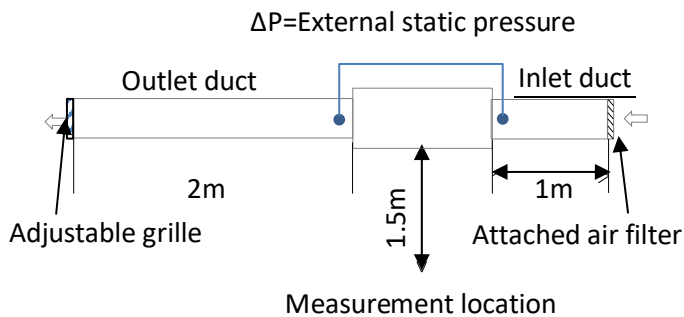
Table 8.1: VESP006(008,010,012,015,019,024,027,031,038) Arc Duct sound pressure levels<sup>1</sup>

Model name	Sound pressure levels dB						
	SSH	SH	H	M	L	SL	SSL
VESP00 T0A-DCV01	27	26	25	24	23	22.5	22
VESP008T0A-DCV022	28	27	26	25	24	23.5	22
VESP010T0A-DCV028	30	29	28	27	26	25	22
VESP012T0A-DCV03	30	29	28	27	26	25.5	25
VESP01 T0A-DCV0	33	32.5	32	30	29	28	26
VESP01 T0A-DCV0	36	34	33	32	31	30	27
VESP02 T0A-DCV0 1	37	35	34	32.5	31	30	29
VESP02 T0A-DCV080	36.5	35	34	33	32	31	30.5
VESP031T0A-DCV0 0	36.5	35	34	33	32	31	30.5
VESP038T0A-DCV112	39.5	38	36.5	35	34	32.5	31.5

Notes:

- The sound pressure level is measured in an anechoic chamber at a distance of 1.5m below the unit, under the default static pressure setting at the factory. During on-site operation, the sound pressure level may be higher due to the influence of environmental noise.

Figure 8.2: Arc Duct sound pressure level measurement



Connected to a top-discharge outdoor unit and measured in anechoic room. Adjusting the outlet grille to make the  $\Delta P$  is equal to the rated static pressure, the data was recorded at 1.5m below the unit.

# OMEGA Indoor Units

## 8.2 Octave Band Levels

Figure 8.3: VESP006T0A-DCV015 octave band levels

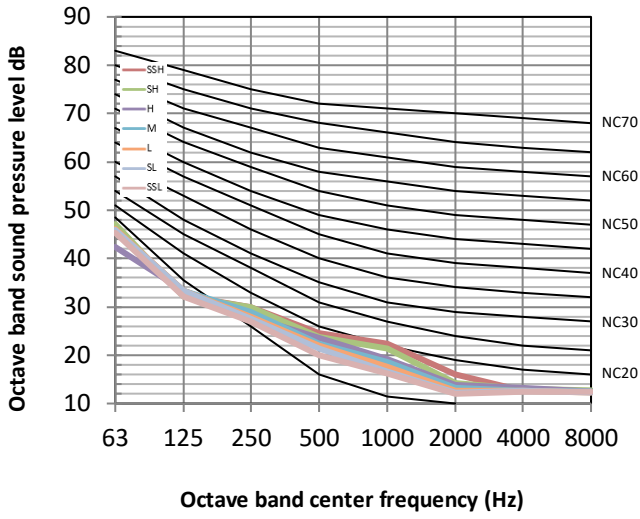


Figure 8.4: VESP008T0A-DCV022 octave band levels

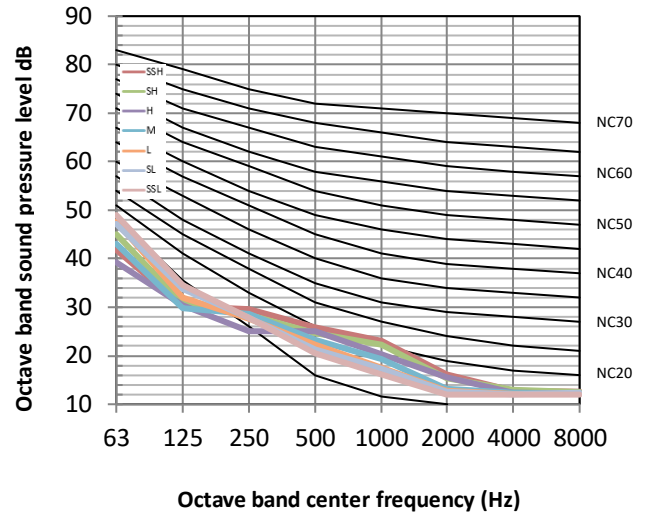


Figure 8.5: VESP010T0A-DCV028 octave band levels

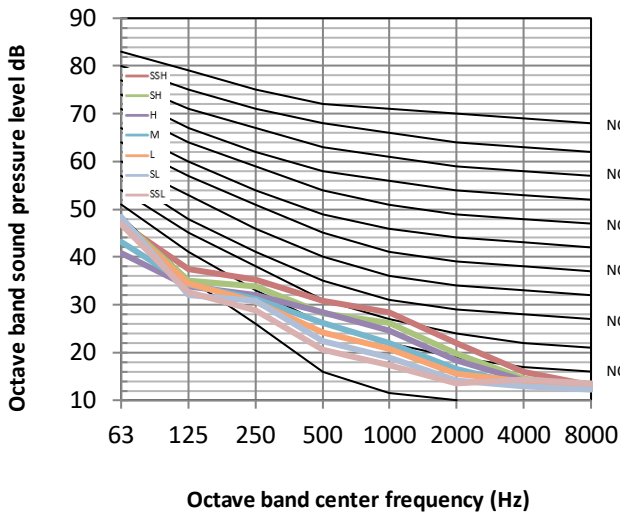


Figure 8.6: VESP012T0A-DCV036 octave band levels

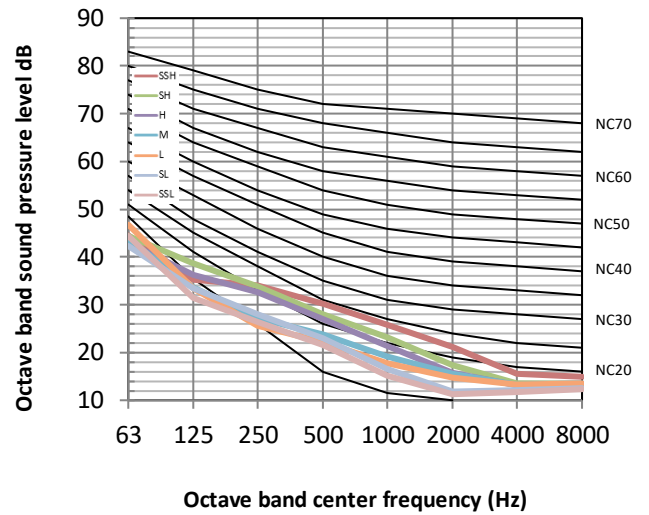


Figure 8.7: VESP015T0A-DCV045 octave band levels

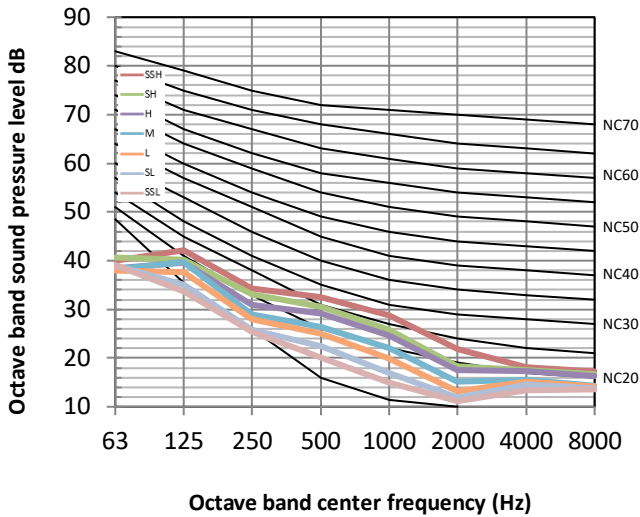


Figure 8.8: VESP019T0A-DCV056 octave band levels

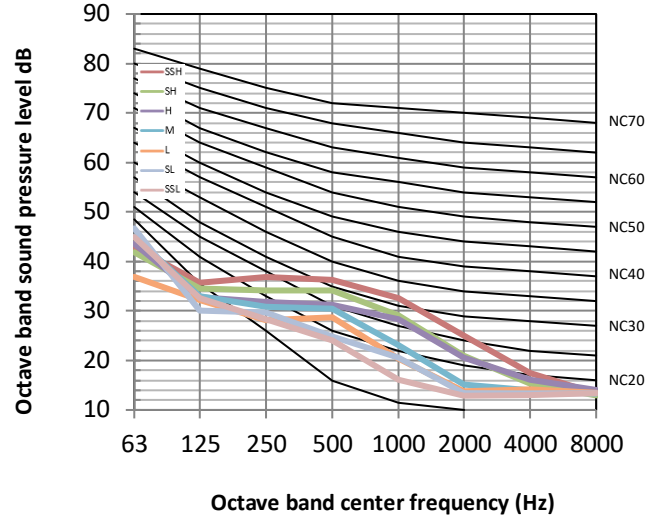


Figure 8.9: VESP024T0A-DCV071 octave band levels

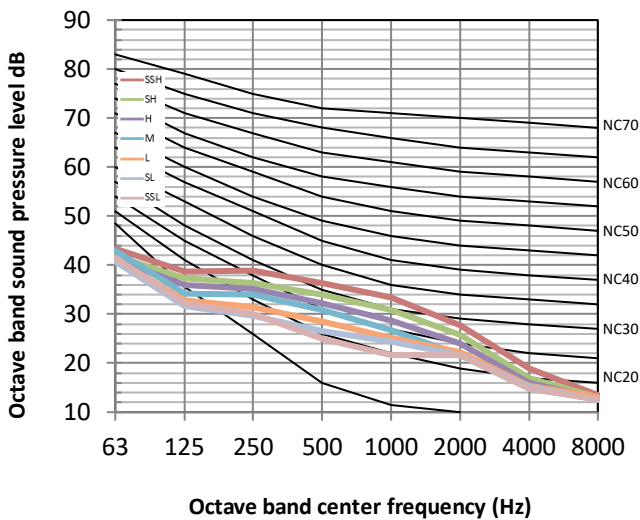


Figure 8.10: VESP027T0A-DCV080 octave band levels

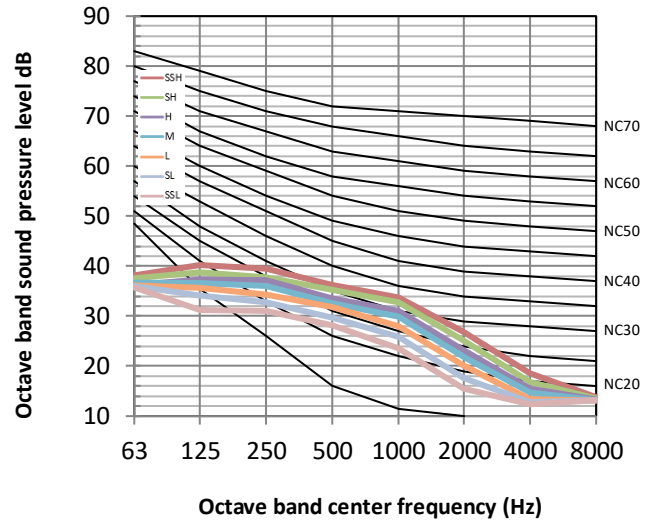


Figure 8.11: VESP031T0A-DCV090 octave band levels

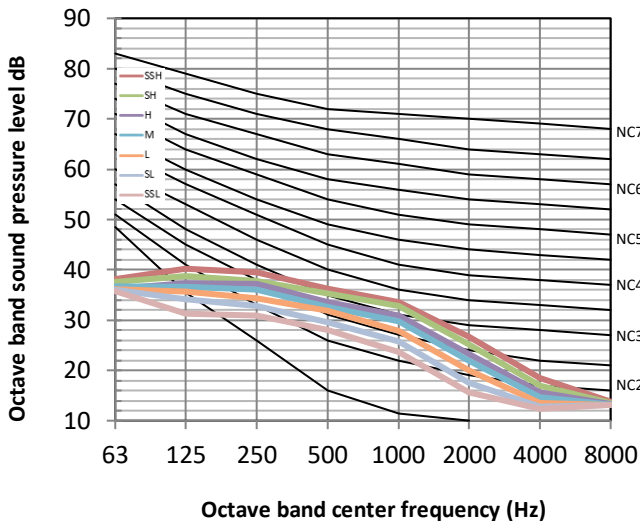
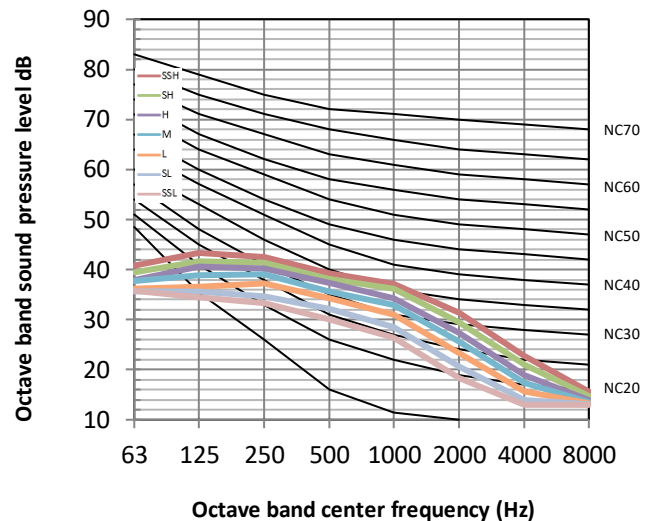


Figure 8.12: VESP038T0A-DCV112 octave band levels





# OMEGA Indoor Units

## 9 Fan Performance

### 9.1 How to switch between Constant Airflow mode and Constant Speed mode

① In the main interface, press "≡" + "↵" for 3 seconds at the same time, and the main interface will display "CC". Press the "▲" and "▼" to select the indoor unit ("n00-n63" is displayed, and the last two digits are the indoor unit addresses). Press the "↵" to enter the parameter setting interface, and "n00" will be displayed.

② Press the "▲" and "▼" until "N30" is displayed on the page, and

then press the "↵" to enter the mode setting. Use the "▲" and "▼" keys to adjust to the demand mode parameter values, and press the "↵" to confirm.

③ Press the "⌚" button to return to the previous menu and exit the parameter setting. Parameter setting will also exit after 60 s of no operation

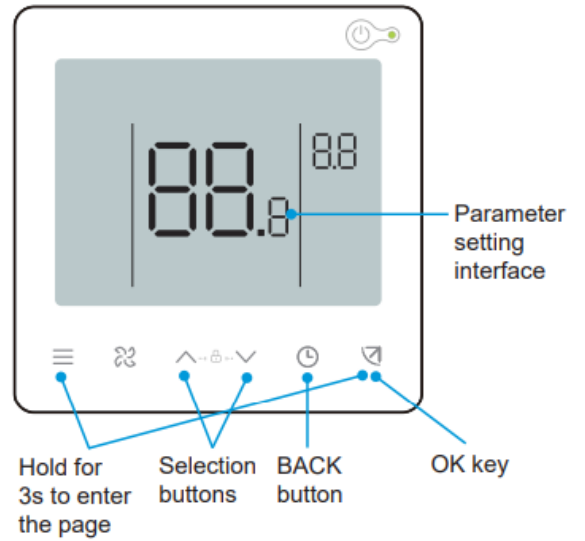


Table 9.1: Arc Duct mode setting

First level menu	Second level menu	Description	Default
n30	00	Constant Speed	-
	01	Constant Airflow	√

## 9.2 Constant Airflow mode

### 9.2.1 Fan performance diagram

Figure 9.1: VESP006T0A-DCV015

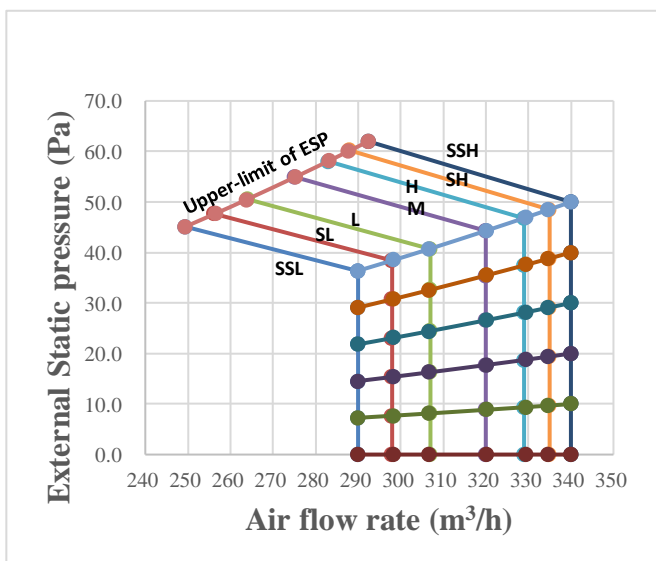


Figure 9.2: VESP008T0A-DCV022

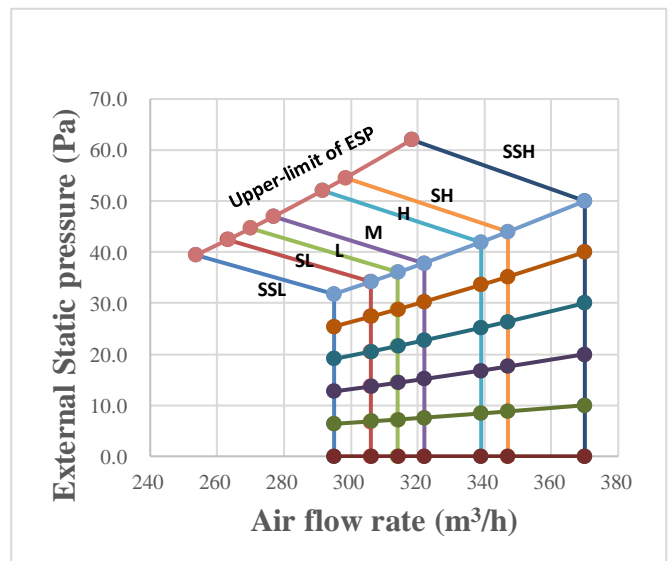


Figure 9.3: VESP010T0A-DCV028

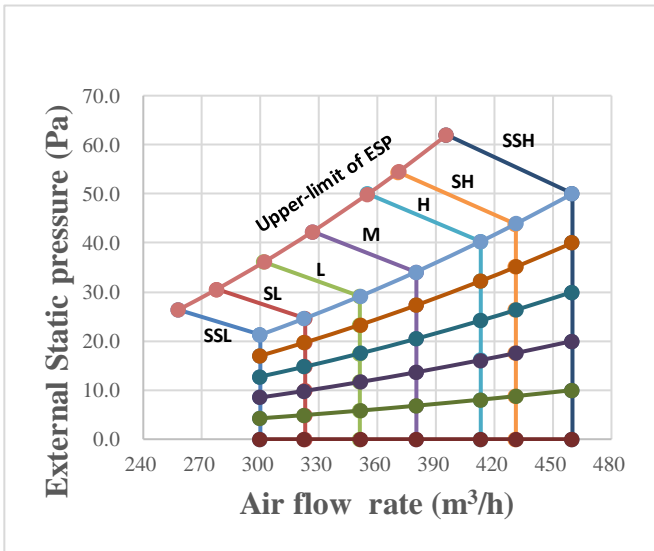


Figure 9.4: VESP012T0A-DCV036

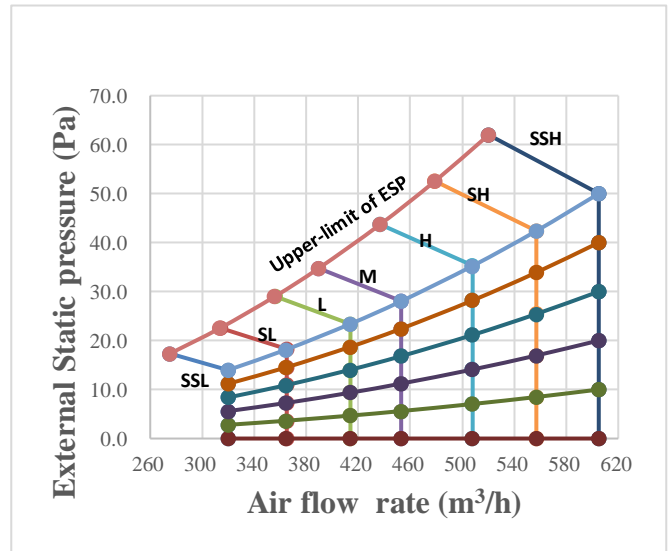


Figure 9.5: VESP015T0A-DCV045

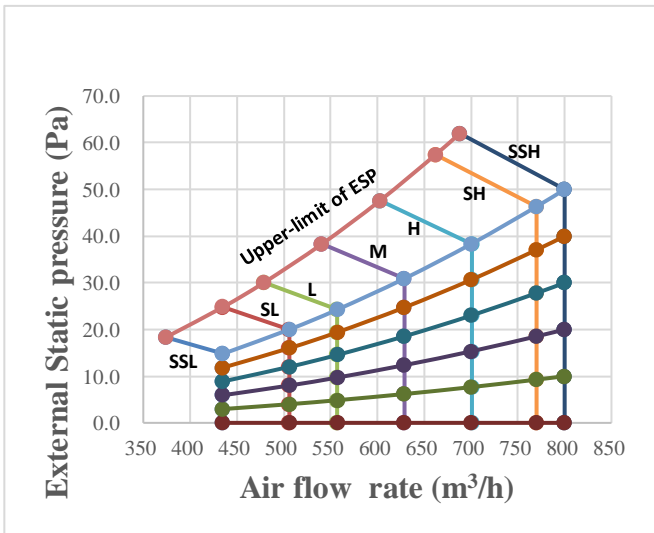


Figure 9.6: VESP019T0A-DCV056

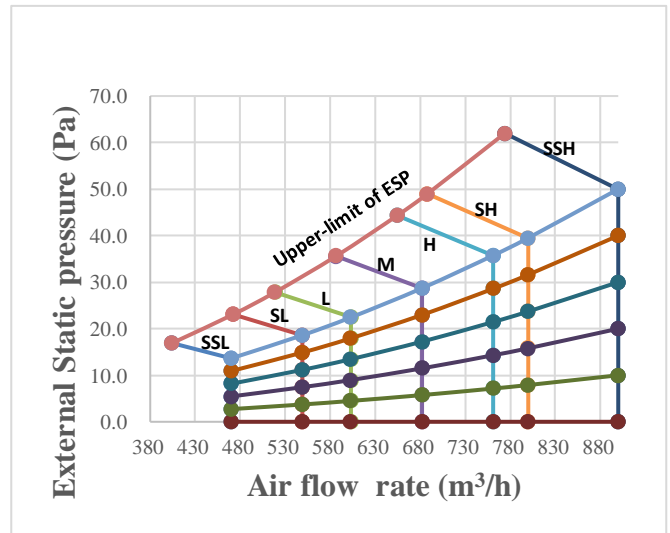


Figure 9.7: VESP024T0A-DCV071

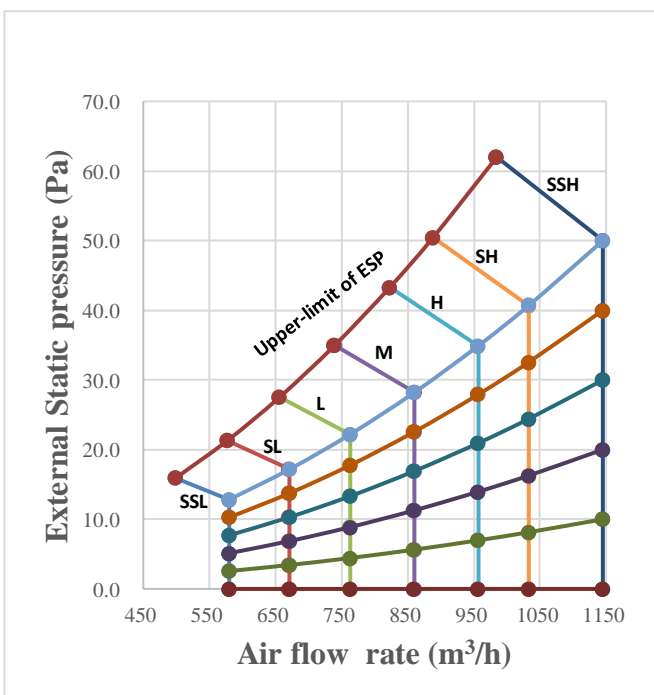


Figure 9.8: VESP027T0A-DCV080

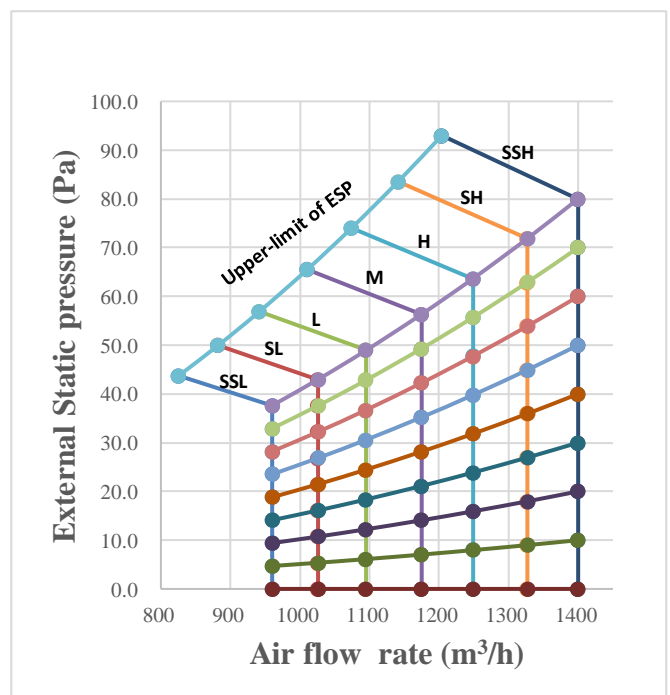


Figure 9.9: VESP031T0A-DCV090

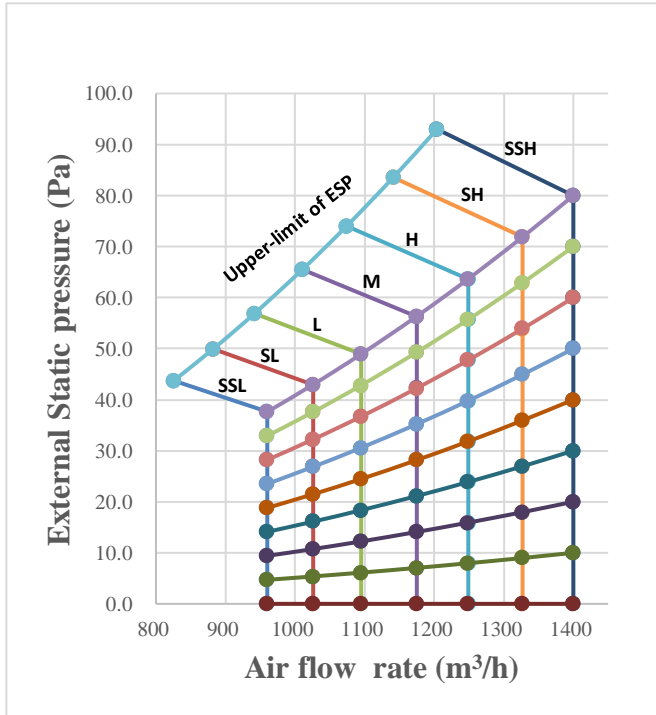
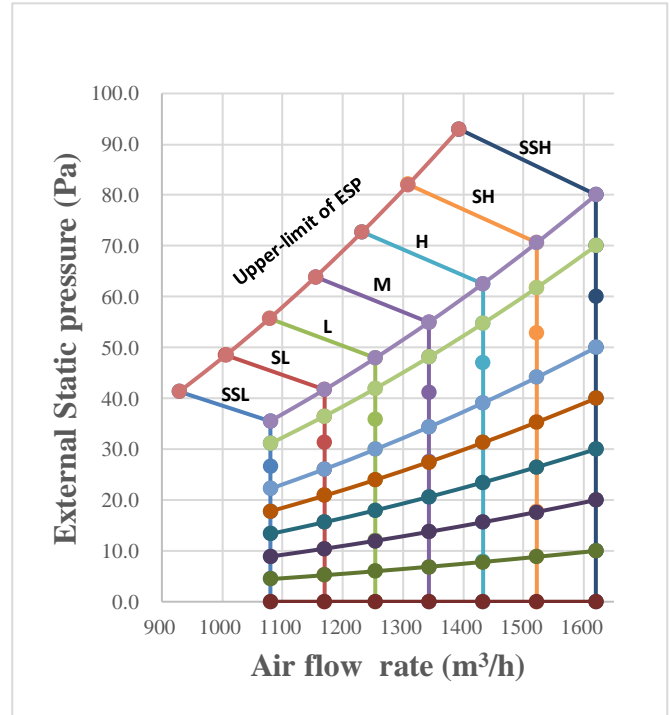


Figure 9.10: VESP038T0A-DCV112



## 9.2.2 How to Read the Diagram

The vertical axis is the External Static Pressure (Pa) while the horizontal axis represents the Air Flow (m³/h). The characteristic curve for the “SSH”, “SH”, “H”, “M”, “L”, “SL” and “SSL” fan speed control.

For MIH80T3HN18, in “H” windshield, when the external static pressure is less than 63.7 Pa, the air flow keeps 1249 m³/h, but when the external static pressure is greater than 63.7 Pa, the air flow begins to decline, and the allowable maximum external static pressure is 74 Pa.

9.3 Constant Speed mode

9.3.1 Set external static pressure parameters

① In the main interface, press "☰" + "↵" for 3 seconds at the same time, and the main interface will display "CC". Press the "▲" and "▼" to select the indoor unit ("n00-n63" is displayed, and the last two digits are the indoor unit addresses). Press the "↵" to enter the parameter setting interface, and "n00" will be displayed.

② When "n00" is displayed, press the "↵" to enter the static pressure setting. Use the "▲" and "▼" keys to adjust to the demand parameter values, and press the "↵" to confirm.

③ Press the "⌚" button to return to the previous menu and exit the parameter setting. Parameter setting will also exit after 60 s of no operation

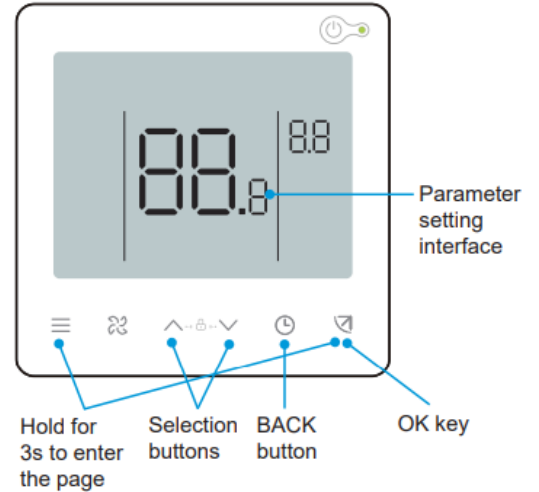


Table 9.1: External static pressure setting (VESP006(008,010,012,015,019,024,))

First level menu	Second level menu	Description	Default
N00	00/01/02/03/04/05/~ /19	Static pressure level	00

Level	00	01	02	03	04-19
Static pressure(Pa)	10	20	30	40	50

Table 9.2: External static pressure setting (VESP027(031,038))

First level menu	Second level menu	Description	Default
N00	00/01/02/03/04/05/~ /19	Static pressure level	01

Level	00	01	02	03	04	05	06	07-19
Static pressure(Pa)	10	20	30	40	50	60	70	80

Notes:

- The above is only an example of 86S wired controller. If you choose other controllers, please refer to their manuals for setting.

9.3.2 Fan performance diagram

Figure 9.11: VESP006T0A-DCV015

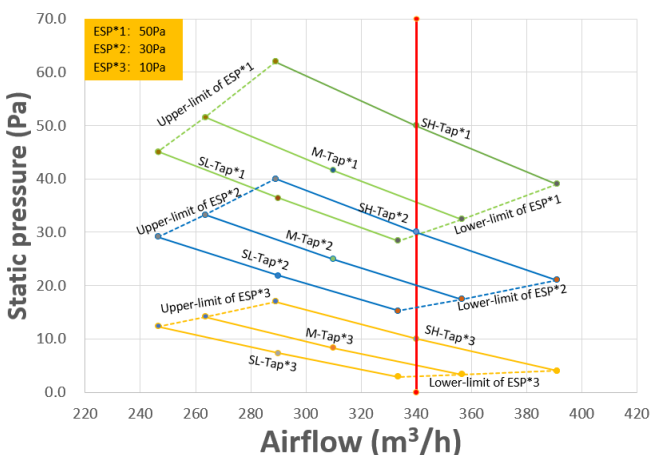
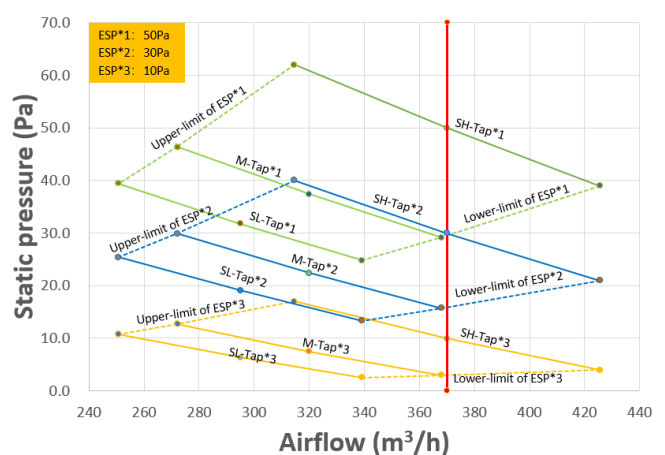


Figure 9.12: VESP008T0A-DCV022



# OMEGA Indoor Units

Figure 9.13: VESP010TOA-DCV028

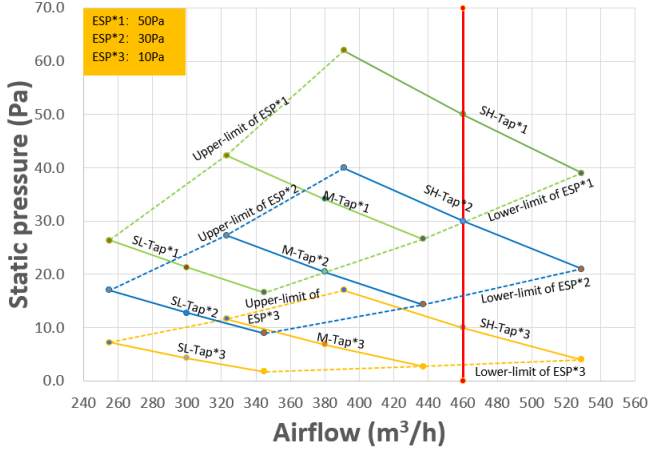


Figure 9.14: VESP012TOA-DCV036

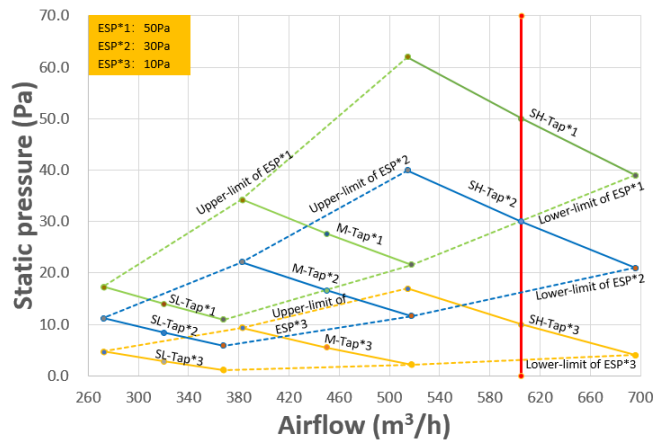


Figure 9.15: VESP015TOA-DCV045

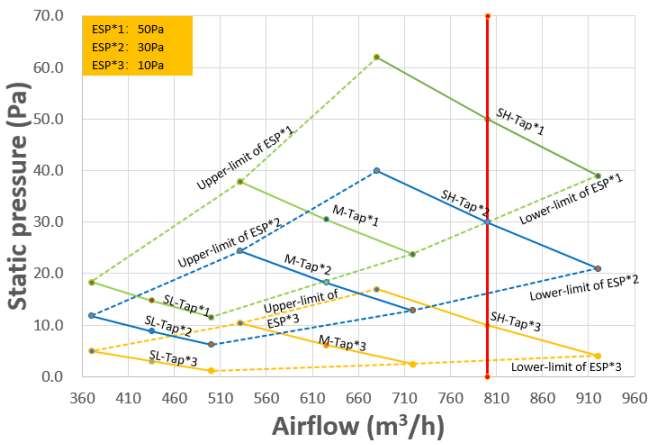


Figure 9.16: VESP019TOA-DCV056

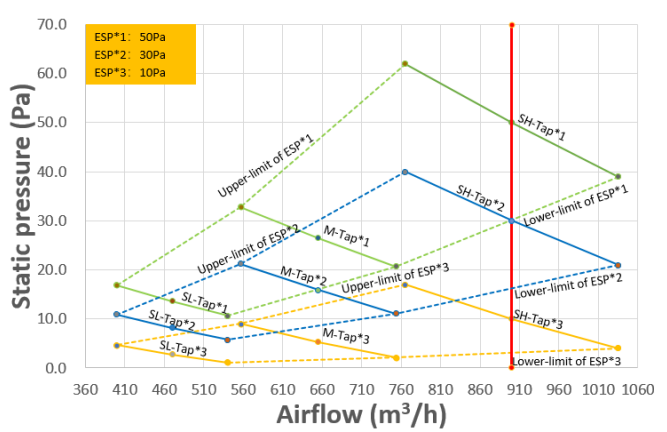


Figure 9.17: VESP024TOA-DCV071

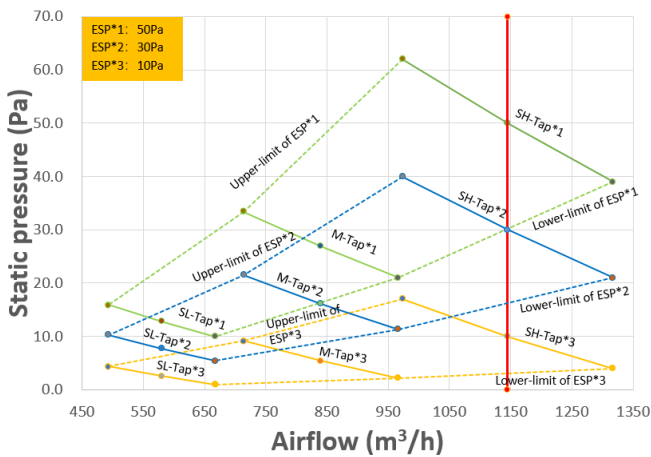


Figure 9.18: VESP027TOA-DCV080

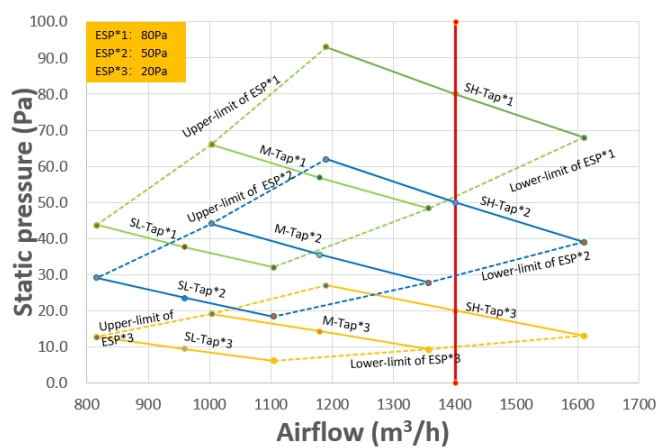


Figure 9.19: VESP031T0A-DCV090

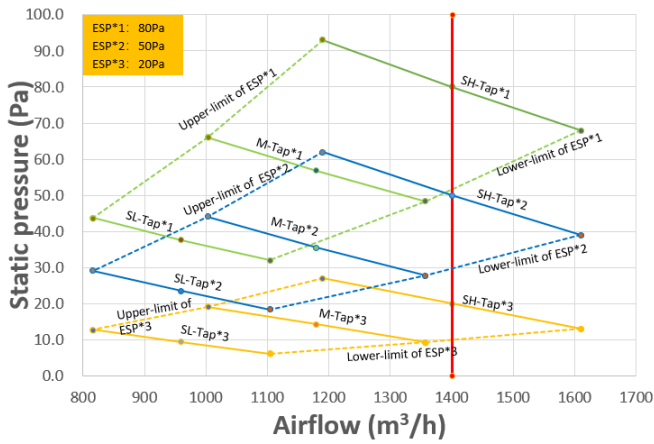
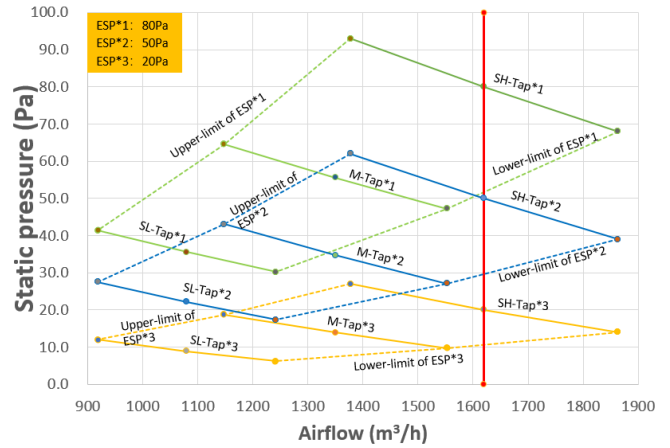


Figure 9.20: VESP038T0A-DCV112



### 9.3.3 How to Read the Diagram

The vertical axis is the External Static Pressure (Pa) while the horizontal axis represents the Air Flow (m³/h). The characteristic curve for the “SH”, “M” and “SL” fan speed control.

The Air Flow decreases with the increase of the external static pressure. For MIH80T3HN18, in “SH” windshield and “50Pa” setting static pressure, when the external static pressure is 50Pa, the air flow is 1400 m³/h, and the allowable external static pressure range is 39 to 62.



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