

OMEGA Arc Duct Fan Coil VRF IDU

SUBMITTAL DATA

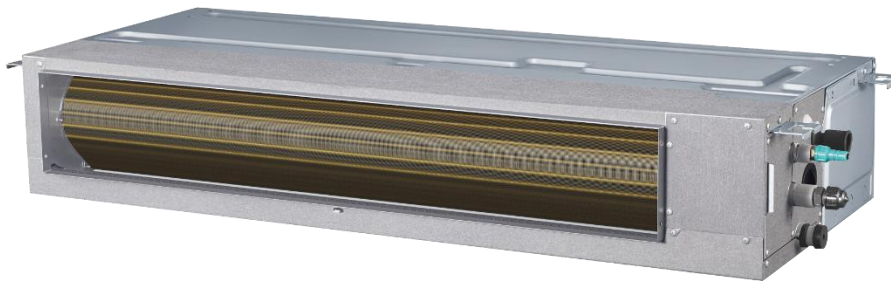
220~240V/1/50-60Hz

Job: _____
 Location: _____
 Schedule No.: _____
 System Designation: _____

Engineer: _____
 Architect: _____
 Date: _____
 For: Reference Approval Review Construction

FEATURES

- Wider Capacity Range
- Ultra-thin Fuselage
- Quiet Operation
- Constant Airflow Technology
- Heat Exchanger Self-cleaning
- Efficient Sewage Discharge



Specifications

1 Specifications

Table 1.1: VESP006(008,010)T0A specifications

Model			VESP006T0A-DCV015	VESP008T0A-DCV022	VESP010T0A-DCV028
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	1.5	2.2	2.8
		kBtu/h	5.1	7.5	9.6
	Power input	W	21	22	28
Heating ²	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 ³		2&3	2&3	2&3
	Tube pitch ³	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 ⁴	m ³ /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 ⁵	Pa	10 (10-50)			
Sound pressure level ⁶	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 ⁶	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 ⁷ (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	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		
connections	Drain pipe	mm	OD Φ25		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Arc Duct adopts a brand-new special-shaped heat exchanger with different number of rows and different Tube pitch at different positions.
4. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
5. 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.)
6. 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.
7. 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.
8. All specifications are measured at standard external static pressure.
9. G1 air filter is standard for Arc Duct.

Specifications

Table 1.2: VESPO12(015,019,024) IDU specifications

Model			VESPO12T0A-DCV036	VESPO15T0A-DCV045	VESPO19T0A-DCV056	VESPO24T0A-DCV071
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling ¹	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 ²	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 ³		2&3	2&3	2&3	2&3
	Tube pitch ³	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 ⁴		m ³ /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 ⁵		Pa	10 (10-50)			
Sound pressure level ⁶		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 ⁷ (W×H×D)		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)		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)
Refrigerant type			R410A/R32			
Throttle type			Electronic expansion valve			
Design pressure (H/L)		MPa	4.4/1.5			
Pipe connections	Liquid/Gas pipe		Φ6.35/Φ12.7			Φ9.52/Φ15.9
	Drain pipe		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.
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- 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.
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- All specifications are measured at standard external static pressure.
- G1 air filter is standard for Arc Duct.

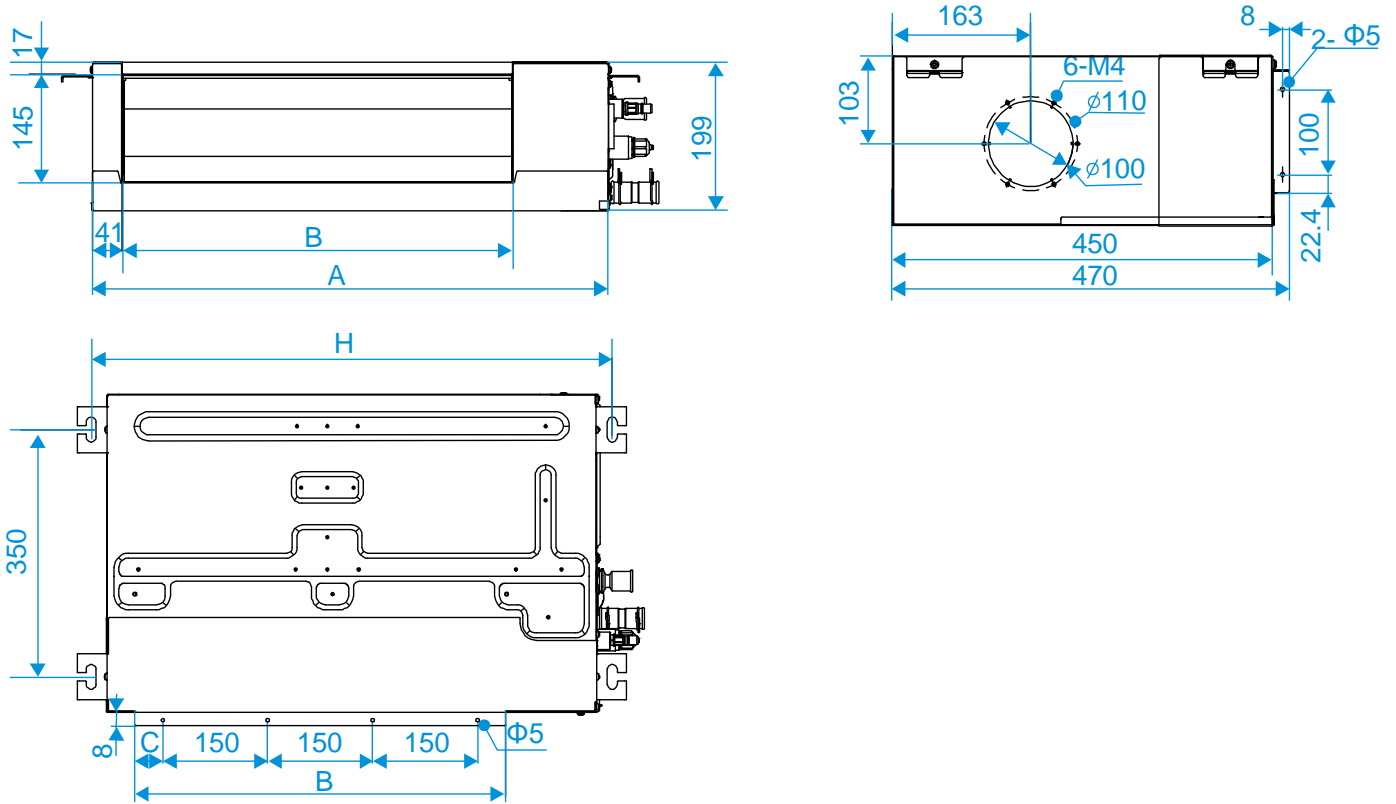
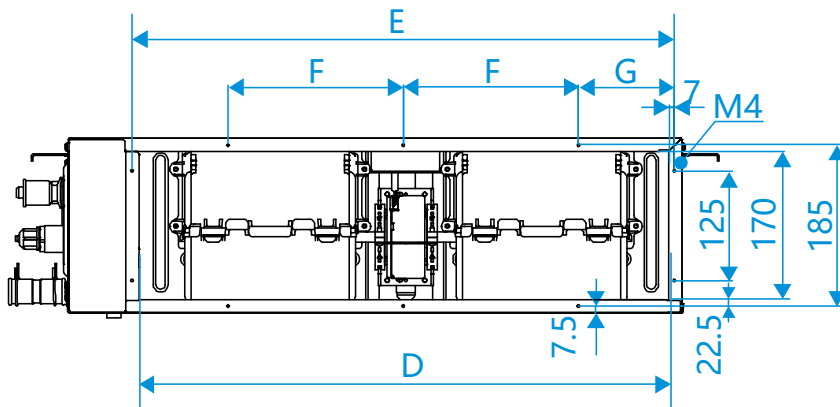
Specifications

Table 1.3: VESPO27(031,038)TOA specifications

Model			VESPO27TOA-DCV080	VESPO31TOA-DCV090	VESPO38TOA-DCV112
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	8	9	11.2
		kBtu/h	27.3	30.7	38.2
	Power input	W	108	108	128
Heating ²	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 ³		2&3	2&3	2&3
	Tube pitch ³		mm		
	Fin spacing and type		mm		
	Tube OD and type		mm		
	Dimensions (L×H×W)		mm		
	Number of circuits		mm		
Air flow rate ⁴ (20Pa)		m ³ /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 ⁵		Pa	20(10-80)		
Sound pressure level ⁶ (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 ⁷ (W×H×D)		in/mm		
	Packed dimensions (W×H×D)		in/mm		
	Net/Gross weight		lbs/kg		
Refrigerant type			R410A/R32		
Throttle type			Electronic expansion valve		
Design pressure (H/L)		MPa	4.4/1.5		
Pipe connections	Liquid/Gas pipe		mm		
	Drain pipe		mm		

Notes:

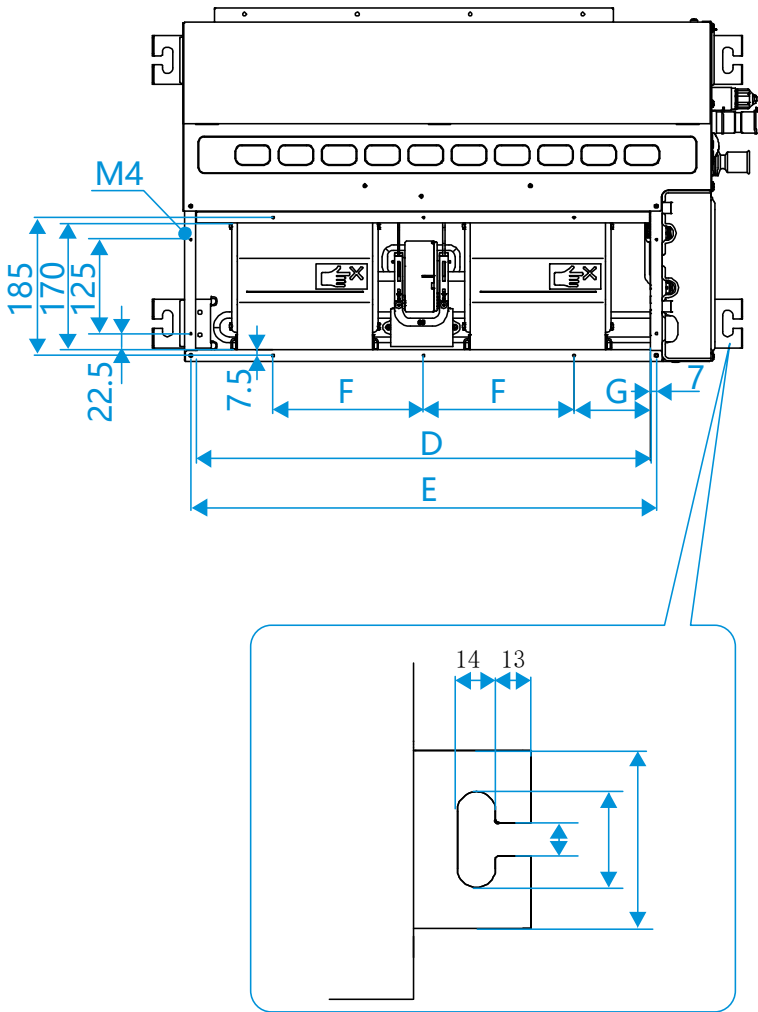
- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Arc Duct adopts a brand-new 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.

DIMENSIONAL DRAWINGS - (MM)
2 Dimensions
2.1 Unit Dimensions
Figure 2.1: 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		
VESP024T0A-DCV071	1100	930	15	1005	1019	200	109.5	1145	5/8-18 UNF	7/8-14 UNF
VESP027(031,038)T0A	1600	1400	25	1505	1519	200	159.5	1645		

DIMENSIONAL DRAWINGS - (MM)

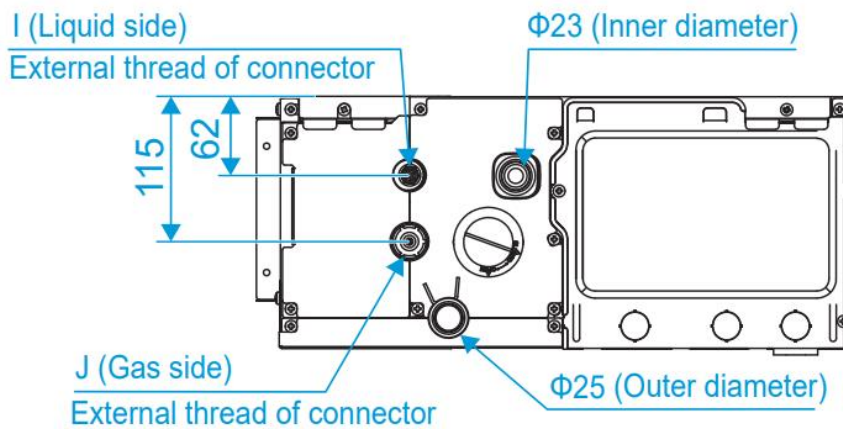
Figure 2.3: Size of return air inlet (bottom return air mode) and distance between lifting lugs:(unit: mm)



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

Electrical Characteristics

Electrical Characteristics

Table 7.1: 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



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