

OMEGA VRF Fresh Air Ducted IDU

SUBMITTAL DATA

220-240V/1/50-60Hz

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

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

FEATURES

- 100% Fresh Air Unit
- High Static Pressure Design
- Water Overflow Protection
- Washable Filter
- Full DC Inverter Motors
- Intelligent Drainage Device



1- Specifications

1 Specifications

VEFA043Q0A-DCV125 / VEFA048Q0A-DCV140

Table 1.1: VEFA-043(048)Q0A-DCV125(140) specifications

Model name			VEFA043Q0A-DCV125	VEFA048Q0A-DCV140
Power supply			1-phase, 220-240V, 50/60Hz	
Cooling ¹	Capacity	kW	12.5	14.0
	Input	W	480	480
Heating ²	Capacity	kW	10.5	12.0
	Input	W	480	480
Fan motor	Model		WZDK750-38GS-W	
	Type		DC	
	Brand		Panasonic/Welling	
	Input(H/M/L)	W	360	
Coil	Number of rows		4	
	Tube pitch×row pitch	mm	25.4×22	
	Fin spacing	mm	1.6	
	Fin type		Hydrophilic aluminum	
	Tube OD and type	mm	Φ9.53 Inner groove	
	Dimensions (L×H ×W)	mm	996×355.6×88	
	Number of circuits		7	
Airflow rate (H/M/L)		m ³ /h	2000/1917/1833/1750/1667/1583/1500	
External static pressure ³		Pa	150 (100~250)	
Sound pressure level ⁴ (H/M/L)		dB(A)	48/47/46/45/44/43/42	
Unit	Net dimensions (W×H×D)		1322×423×691	
	Packed dimensions (W×H×D)		1436×450×768	
	Net/Gross weight		68/76	
Refrigerant type			R410A	
Throttle	Type		Electronic expansion valve	
	Model		BD24FKS(L)	
Design pressure(H/L)		MPa	4.4/2.6	
Refrigerant piping	Liquid/Gas side	mm	Φ9.53/Φ15.9	
Drainpiping		mm	OD Φ25	
Operating temperature range		°C	Heating: -5 to 16; Cooling: 20 to 43; Fan only: 16 to 20	

Notes:

1. Outdoor air temperature 33°C DB, 28°C WB; equivalent refrigerant piping length 8m with zero level difference.
2. Outdoor air temperature 0°C DB, -2.9°C WB; equivalent refrigerant piping length 8m with zero level difference.
3. 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.)
4. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

1- Specifications

VEFA070Q0A-DCV200 / VEFA085Q0A-DCV250 / VEFA096Q0A-DCV280
Table 1.2: VEFA-070(085,096)Q0A-DCV200(250,280) specifications

Model name			VEFA070Q0A-DCV200	VEFA085Q0A-DCV250	VEFA096Q0A-DCV280
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	20.0	25.0	28.0
	Input	W	850	850	850
Heating ²	Capacity	kW	12.8	16.0	18.0
	Input	W	850	850	850
Fan motor	Model		WZDK750-38GS-W		
	Type		DC		
	Brand		Panasonic/Welling		
	Input	W	600	650	
Coil	Number of rows		4		
	Tube pitch×row pitch	mm	25.4×22		
	Fin spacing	mm	1.8		
	Fin type		Hydrophilic aluminum		
	Tube OD and type	mm	Φ9.53 Inner groove		
	Dimensions (L×H ×W)	mm	1125×512×88		
	Number of circuits		20		
Airflow rate (H/M/L)		m ³ /h	3000/2833/2667/2500/2333/2167/2000		
External static pressure ³		Pa	200 (100~400)		
Sound pressure level ⁴ (H/M/L)		dB(A)	50/49/48/47/46/44/43		
Unit	Net dimensions (W×H×D)		1454×515×931		
	Packed dimensions (W×H×D)		1509×550×990		
	Net/Gross weight		130/142		
Refrigerant type			R410A		
Throttle	Type		Electronic expansion valve		
	Model		BD24FKS(L)		
Design pressure(H/L)		MPa	4.4/2.6		
Refrigerant piping	Liquid/Gas side	mm	Φ12.7/Φ22.2		
Drainpiping		mm	OD Φ32		
Operating temperature range		°C	Heating: -5 to 16; Cooling: 20 to 43; Fan only: 16 to 20		

Notes:

1. Outdoor air temperature 33°C DB, 28°C WB; equivalent refrigerant piping length 8m with zero level difference.
2. Outdoor air temperature 0°C DB, -2.9°C WB; equivalent refrigerant piping length 8m with zero level difference.
3. 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.)
4. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

1- Specifications

VEFA153Q0A-DCV450 / VEFA191Q0A-DCV560

Table 1.2: VEFA-153(191)Q0A-DCV450(560) specifications

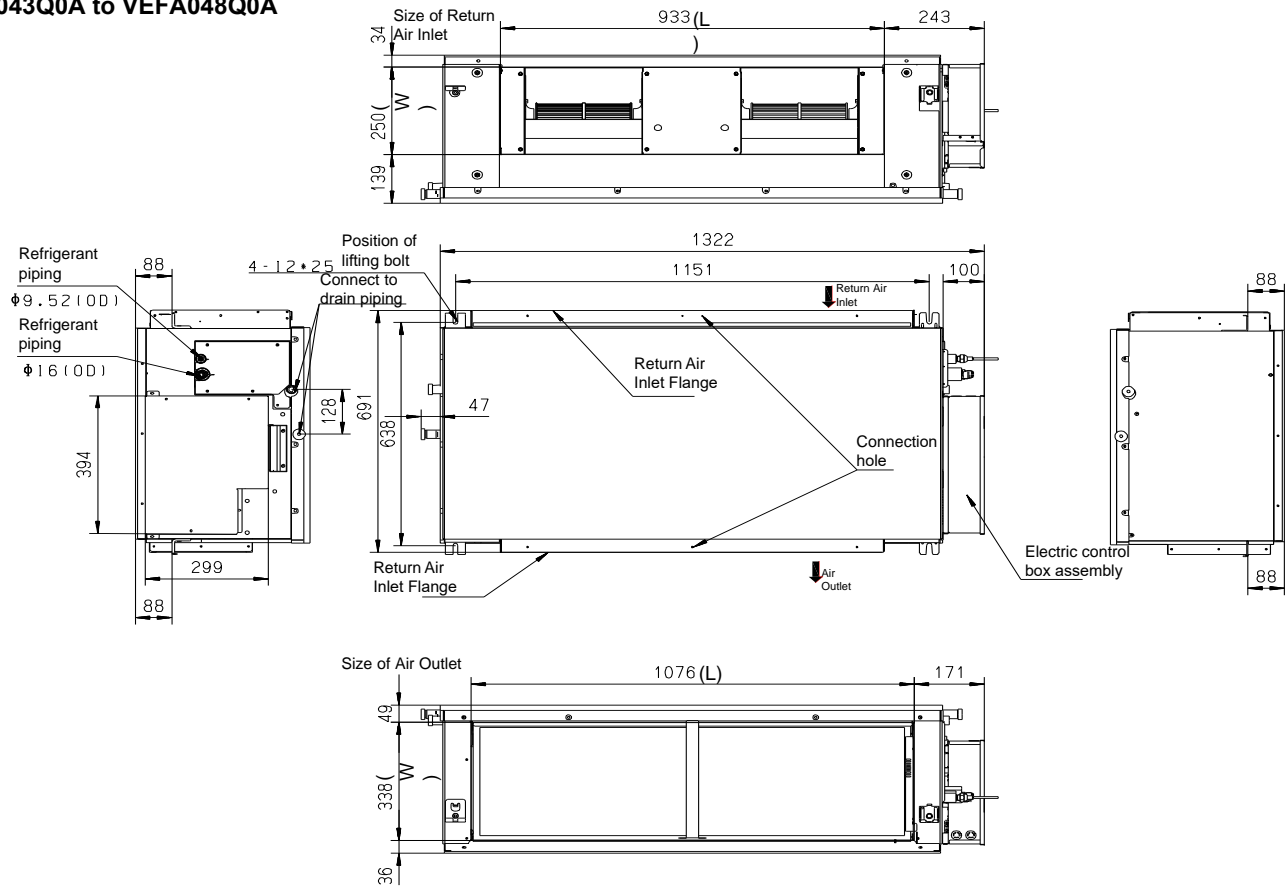
Model name			VEFA153Q0A-DCV450	VEFA191Q0A-DCV560
Power supply			1-phase, 220-240V, 50/60Hz	
Cooling ¹	Capacity	kW	45	56
	Input	W	1080	2272
Heating ²	Capacity	kW	28	39.0
	Input	W	1080	2272
Fan motor	Model		ZKSN-920-8-12-1	
	Type		DC	
	Brand		Nidec/Yongan	
	Input	W	920	
Coil	Number of rows		4	5
	Tube pitch × row	mm	21×13.37	21×13.37
	Fin spacing	mm	1.5	1.5
	Fin type		Hydrophilic aluminum	
	Tube OD and	mm	Φ7 Inner groove	Φ7 Inner groove
	Dimensions (L×H)	mm	1602×588×47	1602×588×53.84
	Number of circuits		28	28
Airflow rate (H/M/L)		m ³ /h	4200/3967/3733/3500/3267/3033/2800	6000/5665/5330/5000/4665/4330/4000
External static pressure ³		Pa	300 (100~400)	
Sound pressure level ⁴ (H/M/L)		dB(A)	58/56/55/53/51/49/48	59/57/56/55/53/51/50
Unit	Net dimensions	mm	2010×905×680	2010×905×680
	Packed	mm	2095×929×689	2095×929×689
	Net/Gross	kg	195/215	218/248
Refrigerant type			R410A	
Throttle	Type	Electronic expansion valve		
	Model	DPF(TS2)4.5C-02		
Design pressure (H/L)		MPa	4.4/2.6	
Refrigerant	Liquid/Gas side	mm	Φ15.9/Φ28.6	
Drain piping		mm	OD Φ32	
Operating temperature range		°C	Heating: -5 to 16; Cooling: 20 to 43; Fan only: 16 to 20	

Notes:

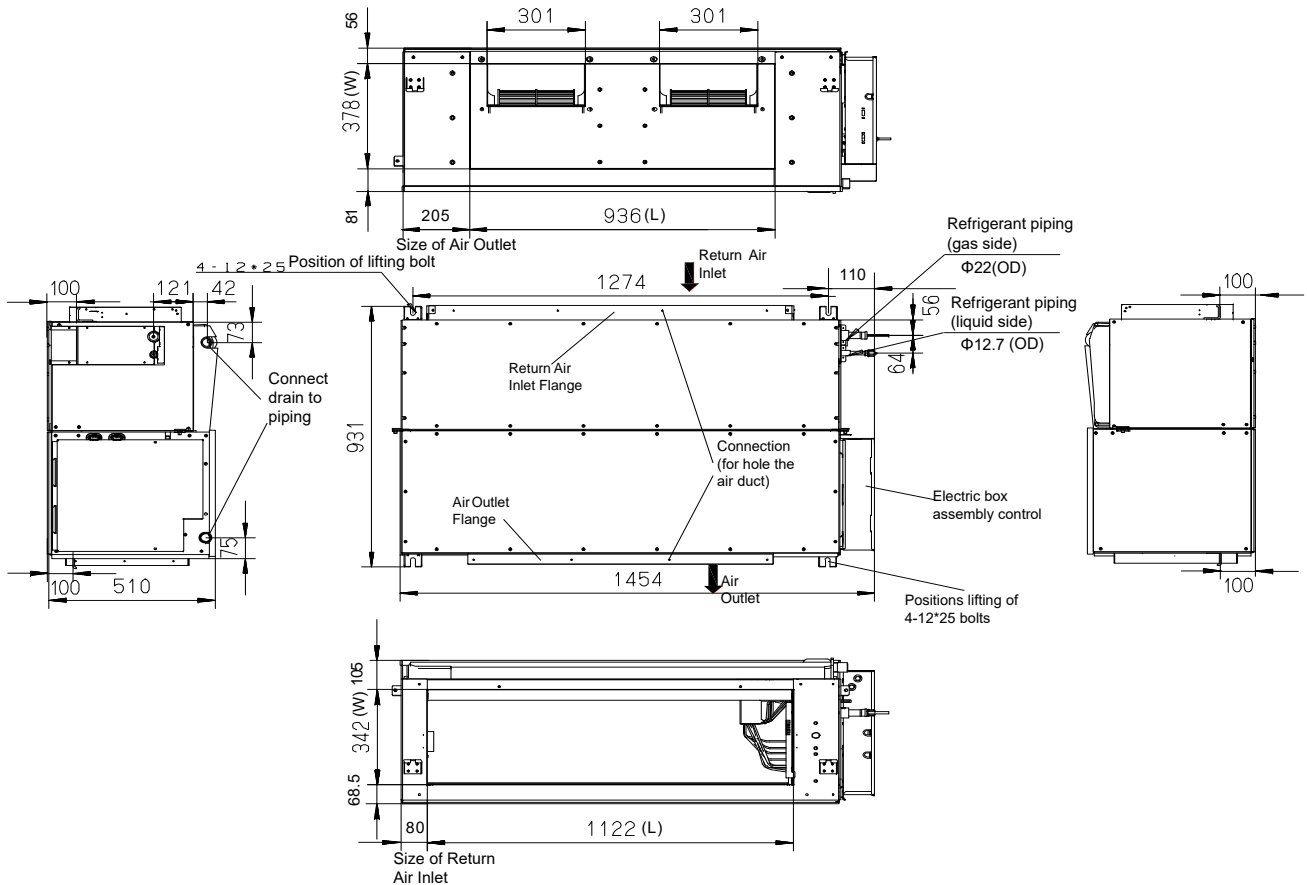
1. Outdoor air temperature 33°C DB, 28°C WB; equivalent refrigerant piping length 8m with zero level difference.
2. Outdoor air temperature 0°C DB, -2.9°C WB; equivalent refrigerant piping length 8m with zero level difference.
3. Stable operation external static pressure range. (Note: setting external 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.)
4. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.

2-DIMENSIONAL DRAWINGS - (MM)

VEFA043Q0A to VEFA048Q0A



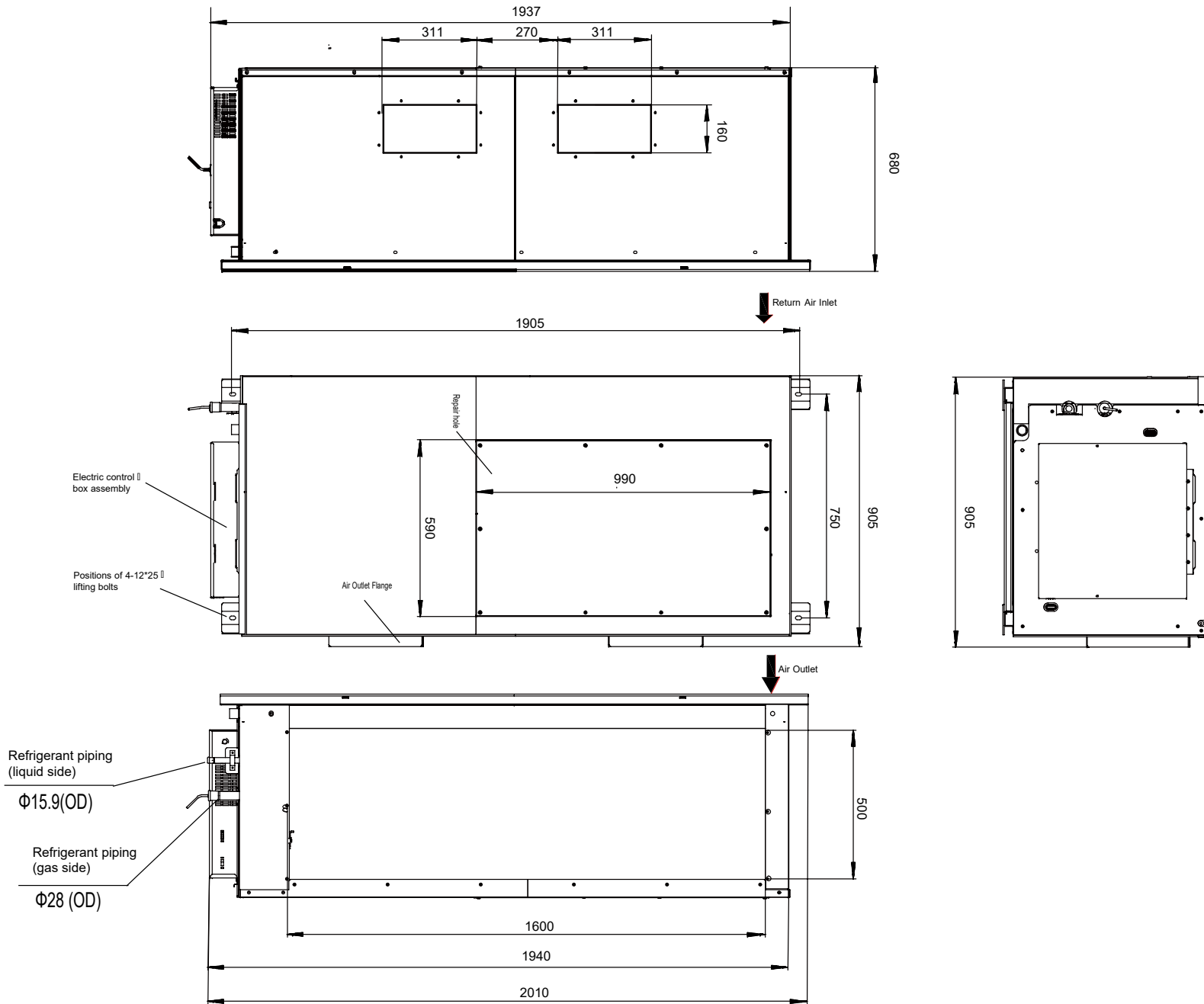
VEFA070Q0A to VEFA096Q0A



2.DIMENSIONAL DRAWINGS - (MM)

VEFA153Q0A-DCV450

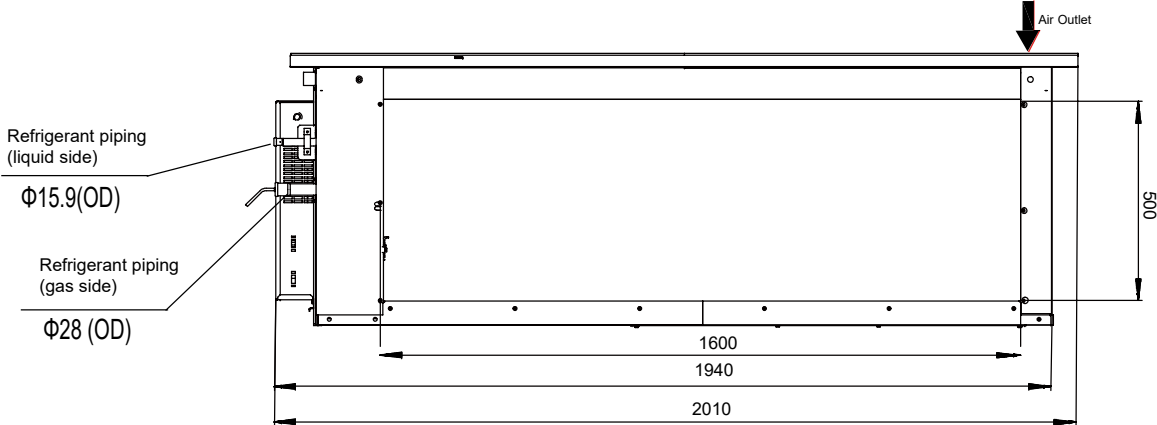
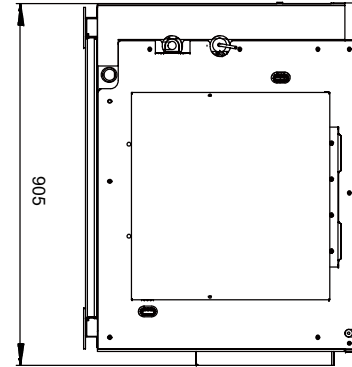
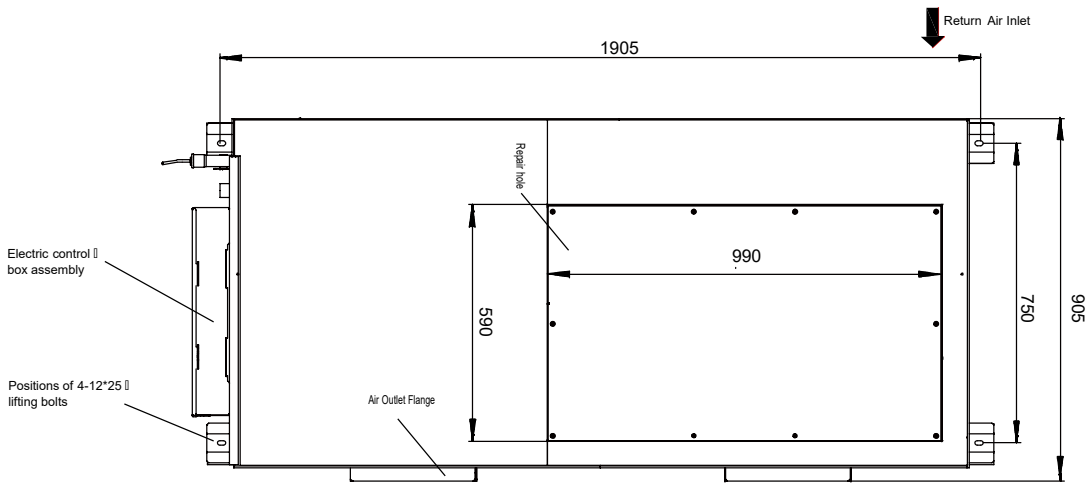
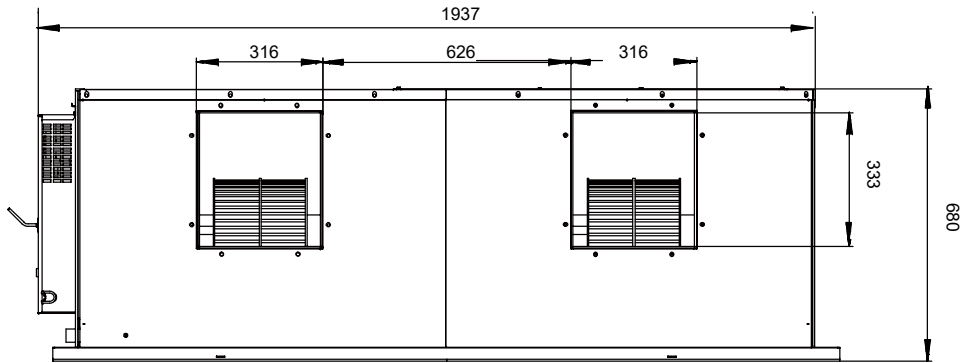
Figure 2.3: VEFA153Q0A-DCV450 dimensions (unit: mm)



2.DIMENSIONAL DRAWINGS - (MM)

VEFA191Q0A-DCV560

Figure 2.4: VEFA191Q0A-DCV560 dimensions (unit: mm)



3-Electrical Characteristics

Table 3.1: Fresh Air Processing Unit electrical characteristics

Model name	Power supply						Indoor fan motors	
	Hz	Volts	Min. volts	Max. volts	MCA	MFA	Rated motor output (kW)	FLA
VEFA043Q0A-DCV125	50/60	220-240	198	264	3.5	15	0.31	2.8
VEFA048Q0A-DCV140	50/60	220-240	198	264	3.5	15	0.34	2.8
VEFA070Q0A-DCV200	50/60	220-240	198	264	5.2	15	0.80	4.1
VEFA085Q0A-DCV250	50/60	220-240	198	264	5.2	15	0.96	4.1
VEFA096Q0A-DCV280	50/60	220-240	198	264	5.2	15	0.96	4.1
VEFA153Q0A-DCV450	50/60	220-240	198	264	6.6	30	0.92	4.1
VEFA191Q0A-DCV560	50/60	220-240	198	264	14.5	30	1.84	11.6



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