

VED 030-340IEU

Fan coil unit for ducted installations



- **Horizontal installation**
- **Large range of available static pressure**
- **Inspectable ventilation group**
- **Total comfort: reduced variations in temperature and humidity**
- **Electricity savings of 50% compared with a fan coil with multi-speed motor**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying. Designed to maintain the set temperature over time, ensuring very low sound levels. Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to the availability of various options, with standard or increased coil, for horizontal installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation. Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Brushless motor with continuous speed variation 0-100%. Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

Main finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

- *Reversibility of hydraulic connections when ordering.*

Finned pack heat exchanger (secondary)

With copper tubes and aluminum louvers, the secondary exchanger has female gas hydraulic connections and is equipped with air vents.

- *To be provided when ordering, factory-installable only.*

Air filter

Air filter easily removed and cleaned.

VERSIONS

IEU EC Brushless fan

OPTIONS

Without options

W Electric connection and water connection on the same side

TL Electronic control board for 120V power supply

TH Electronic control board for 240V power supply

CONFIGURATOR

Field	Description
1,2,3	VED
4	Size 0, 1, 2, 3
5	main heat exchanger
3	3-row coil
4	4-row coil
6	Secondary heat exchanger (1)
0	Without coil
7,8,9	Version
IEU	EC Brushless fan
10	Options
.	Without options
TH	Electronic control board for 240V power supply (not compatible with "W" version).
TL	Electronic control board for 120V power supply (not compatible with "W" version). Horizontal installation only.
W	Electric connection and water connection on the same side (2)

(1) For sizes (0) to (3), the 4-pipe option is available through the BV accessory (1-row heating coil)

(2) W option is not available with TL or TH options

ACCESSORIES

Control panels

TX24: Wall-mounting thermostat for controlling 2/4 tube fan coils with brushless motors.

(Heating only) additional coil

BV: Hot water heat exchanger with 1 row.

Water valves

VCF_X: 3-way valve kit for fan coils with single heat exchanger and hydraulic connections on the left side, for installation in 4-pipe systems. The kit is composed by 2 insulated 3-way valves and 4 connections complete with electrothermal actuators, insulating shells for the valves and with hydraulic fittings. 230V power supply. Hydraulic connections: Valve body Ø G 3/4" Male; Valve side connection pipes Ø G 3/4" Female; Unit side connection pipes Ø G 3/4" Male.

VCF41 - 42 - 43 - for main heat exchanger: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6

condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

VCF44 - 45 - for secondary heat exchanger: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

The actuator is 24 Volt for all valves.

Installation accessories

BC: Condensate drip.

BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

RDA: Straight suction coupling for canalisation.

RPA: 90° suction coupling.

ACCESSORIES COMPATIBILITY (IEU WITH/OR OPTIONS TH E TL)

Control panels

Accessory	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
TX24

(Heating only) additional coil

Accessory	VED030IEU	VED130IEU	VED230IEU	VED330IEU
BV030 (1)	.			
BV130 (1)		.		
BV162 (1)				.
BV230 (1)			.	

(1) Not available for sizes with oversized main coil.

Water valves

3 way valve kit

	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
3 way valve kit								
Main heat exchanger	VCF4324	VCF4324	VCF4324	VCF4324S	VCF4324	VCF4324S	VCF4324	VCF4324
Additional coil "BV"	VCF4524	-	VCF4524	-	VCF4524	-	VCF4524	-

2 way valve kit

	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
2 way valve kit								
Main heat exchanger	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324
Additional coil "BV"	VCFD424	-	VCFD424	-	VCFD424	-	VCFD424	-

Wall mounting and duct type installation accessories

Condensate drip

Accessory	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
BCZ4
BCZ6

Accessory	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
BC9

Straight suction coupling

Accessory	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
RDA000V	.	.						
RDA100V			.	.				
RDA200V					.	.		
RDA300V							.	.

Accessory	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
RDAC000V	.	.						
RDAC100V			.	.				
RDAC200V					.	.		
RDAC300V							.	.

90° suction coupling.

Accessory	VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
RPA000V	.	.						
RPA100V			.	.				
RPA200V					.	.		
RPA300V							.	.

ACCESSORY COMPATIBILITY (WITH IEU VERSION AND W OPTION)

Wall mounting and duct type installation accessories

Straight suction coupling

Accessory	VED030IEUW	VED040IEUW	VED130IEUW	VED140IEUW	VED230IEUW	VED240IEUW	VED330IEUW	VED340IEUW
RDA000V	.	.						
RDA100V			.	.				
RDA200V					.	.		
RDA300V							.	.

90° suction coupling.

Accessory	VED030IEUW	VED040IEUW	VED130IEUW	VED140IEUW	VED230IEUW	VED240IEUW	VED330IEUW	VED340IEUW
RPA000V	.	.						
RPA100V			.	.				
RPA200V					.	.		
RPA300V							.	.

PERFORMANCE SPECIFICATIONS (VALID FOR ALL VERSIONS AND OPTIONS)

2-pipe

	VED030IEU			VED040IEU			VED130IEU			VED140IEU			
	1	5	7	1	5	7	1	5	7	1	5	7	
	L	M	H	L	M	H	L	M	H	L	M	H	
Heating performance 158 °F / 140 °F (1)													
Heating capacity	MBH	6.2	11.5	12.6	8.1	12.2	13.4	15.0	19.9	21.5	15.4	20.8	22.5
Water flow rate system side	gpm	0.7	1.3	1.4	0.9	1.4	1.5	1.7	2.3	2.4	1.7	2.4	2.5
Pressure drop system side	ft H ₂ O	1.00	2.34	3.01	1.34	3.35	4.01	4.35	7.36	8.70	3.01	5.35	6.02
Heating performance 113 °F / 104 °F (2)													
Heating capacity	MBH	3.1	5.7	6.2	4.0	6.0	6.6	7.4	9.9	10.6	7.6	10.3	11.2
Water flow rate system side	gpm	0.7	1.3	1.4	0.9	1.4	1.5	1.7	2.2	2.4	1.7	2.3	2.5
Pressure drop system side	ft H ₂ O	1.00	2.68	3.01	1.67	3.68	4.35	5.02	8.03	9.37	3.35	5.35	6.36
Cooling performances 44.6 °F / 53.6 °F (3)													
Cooling capacity	MBH	3.3	4.8	5.4	3.8	5.8	6.3	7.0	9.4	10.1	7.7	10.3	11.1
Sensible cooling capacity	MBH	2.5	3.7	4.1	2.7	4.1	4.5	4.8	6.5	7.0	5.4	7.4	7.9
Water flow rate system side	gpm	0.7	1.1	1.2	0.8	1.3	1.4	1.6	2.1	2.3	1.7	2.3	2.5
Pressure drop system side	ft H ₂ O	1.00	2.34	3.01	1.67	4.01	4.68	5.02	9.03	13.72	3.68	6.69	7.69
Fan													
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter		
Number	no.	1			1			2			2		
Air flow rate	cfm	95	151	168	94	147	163	169	234	255	165	227	247
High static pressure	in wg	0.08	0.20	0.24	0.08	0.20	0.24	0.10	0.20	0.24	0.10	0.20	0.24
Input power	kW	0.01	0.03	0.04	0.01	0.03	0.04	0.02	0.03	0.04	0.02	0.03	0.04
Signal 0-10V	%	54	80	90	54	80	90	58	82	90	58	82	90
Sound power level (inlet + radiated)	dB(A)	44.0	52.0	54.0	44.0	52.0	54.0	47.0	53.0	55.0	47.0	53.0	55.0
Sound power level (outlet)	dB(A)	40.0	48.0	50.0	40.0	48.0	50.0	42.0	48.0	50.0	42.0	48.0	50.0
Diametre hydraulic fittings													
Type	type	Gas - F			Gas - F			Gas - F			Gas - F		
Main heat exchanger	Ø	3/4"			3/4"			3/4"			3/4"		
Power supply													
Power supply		110/240 V ~ 60Hz			110/240 V ~ 60Hz			110/240 V ~ 60Hz			110/240 V ~ 60Hz		

	VED230IEU			VED240IEU			VED330IEU			VED340IEU			
	1	5	7	1	5	7	1	5	7	1	5	7	
	L	M	H	L	M	H	L	M	H	L	M	H	
Heating performance 158 °F / 140 °F (1)													
Heating capacity	MBH	18.3	22.2	24.4	19.8	24.4	27.0	26.6	31.9	35.9	28.4	34.4	37.4
Water flow rate system side	gpm	2.1	2.5	2.8	2.2	2.8	3.1	3.0	3.6	4.1	3.2	3.9	4.2
Pressure drop system side	ft H ₂ O	9.03	10.04	12.38	6.02	8.70	10.71	3.01	4.35	5.35	7.36	9.37	10.71
Heating performance 113 °F / 104 °F (2)													
Heating capacity	MBH	9.1	11.0	12.1	9.8	12.1	13.4	13.2	15.8	17.8	13.6	17.0	18.6
Water flow rate system side	gpm	2.0	2.5	2.7	2.2	2.7	3.0	3.0	3.6	4.0	3.2	3.8	4.2
Pressure drop system side	ft H ₂ O	8.70	9.70	12.04	6.02	9.03	10.71	3.35	4.68	5.69	4.35	6.69	7.69
Cooling performances 44.6 °F / 53.6 °F (3)													
Cooling capacity	MBH	8.8	10.5	11.5	9.8	12.2	13.5	12.4	14.9	16.8	13.5	16.1	18.0
Sensible cooling capacity	MBH	6.8	8.2	9.0	7.4	9.1	10.1	9.5	11.2	12.4	10.0	12.0	13.3
Water flow rate system side	gpm	2.0	2.4	2.6	2.2	2.7	3.0	2.8	3.3	3.8	3.0	3.6	4.0
Pressure drop system side	ft H ₂ O	8.36	12.04	14.72	5.35	10.37	12.38	3.35	4.68	6.02	5.35	7.03	8.70
Fan													
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter		
Number	no.	2			2			3			3		
Air flow rate	cfm	245	308	347	239	300	335	337	414	474	331	403	456
High static pressure	in wg	0.12	0.20	0.25	0.12	0.20	0.25	0.13	0.20	0.26	0.13	0.20	0.25
Input power	kW	0.02	0.04	0.05	0.02	0.04	0.05	0.04	0.06	0.09	0.04	0.06	0.09
Signal 0-10V	%	66	80	90	62	80	90	62	78	90	66	84	90
Sound power level (inlet + radiated)	dB(A)	49.0	54.0	57.0	49.0	54.0	57.0	49.0	55.0	58.0	49.0	55.0	58.0
Sound power level (outlet)	dB(A)	44.0	49.0	52.0	44.0	49.0	52.0	45.0	51.0	54.0	45.0	51.0	54.0
Diametre hydraulic fittings													
Type	type	Gas - F			Gas - F			Gas - F			Gas - F		
Main heat exchanger	Ø	3/4"			3/4"			3/4"			3/4"		
Power supply													
Power supply		110/240 V ~ 60Hz			110/240 V ~ 60Hz			110/240 V ~ 60Hz			110/240 V ~ 60Hz		

- (1) Room air temperature 68 °F d.b.; Water (in/out) 158 °F/140 °F
- (2) Room air temperature 68 °F d.b.; Water (in/out) 113 °F/104 °F
- (3) Room air temperature 80.6 °F d.b./66.2 °F w.b.; Water (in/out) 44.6 °F/53.6 °F

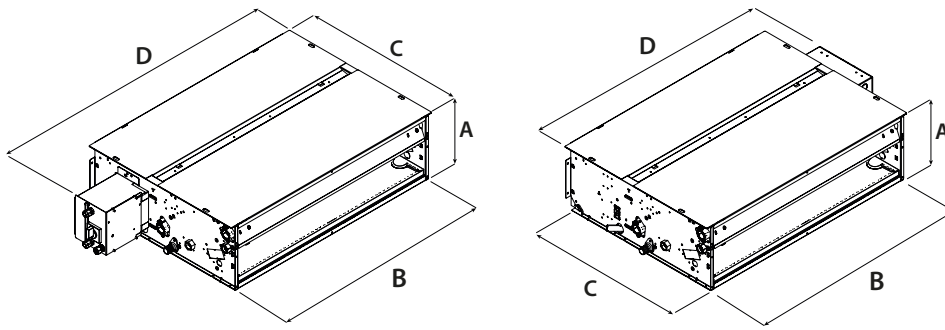
For 4-pipe performance data refer to the "Magellano" selection program

The unit is supplied with nipples for hydraulic connections.

The TH option only has 220V power supply.

The TL option only has 120V power supply.

DIMENSIONS



		VED030IEU	VED040IEU	VED130IEU	VED140IEU	VED230IEU	VED240IEU	VED330IEU	VED340IEU
Dimensions and weights									
A	in	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
B	in	21.7	21.7	30.7	30.7	39.4	39.4	44.2	44.2
C	in	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
D	in	24.6	24.6	33.7	33.7	42.3	42.3	47.1	47.1
		VED030IEUW	VED040IEUW	VED130IEUW	VED140IEUW	VED230IEUW	VED240IEUW	VED330IEUW	VED340IEUW
Dimensions and weights									
A	in	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
B	in	21.7	21.7	30.7	30.7	39.4	39.4	44.2	44.2
C	in	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
D	in	28.5	28.5	37.6	37.6	46.3	46.3	51.0	51.0

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responsibility or liability for errors or omissions.

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