

# VED 030-340 US

## 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**



### 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

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.

The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.

#### 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

**US** Ducted installation

### OPTIONS

Without options

**T** With electronic control board

## CONFIGURATOR

Field	Description
1,2,3	VED
4	Size 0, 1, 2, 3
5	main heat exchanger
3	Standard 3-row
4	Oversized 4-row
6	Secondary heat exchanger (1)
0	Without coil
7,8,9,10	Power supply
/120	120 V
11,12	Version
US	Ducted installation
13	Options
.	Without options
T	With electronic control board

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

## 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

**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.

### 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

### Control panels

Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
TX24	.	.	.	.	.	.	.	.

### (Heating only) additional coil

Accessory	VED030US	VED130US	VED230US	VED330US
BV030 (1)	.			
BV130 (1)		.		
BV162 (1)				.
BV230 (1)			.	

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

### Water valves

#### 3 way valve kit

	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
<b>3 way valve kit</b>								
Main heat exchanger	VCF4324	VCF4324	VCF4324	VCF4324S	VCF4324	VCF4324S	VCF4324	VCF4324
Additional coil "BV"	VCF4524	-	VCF4524	-	VCF4524	-	VCF4524	-

#### 2 way valve kit

	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
<b>2 way valve kit</b>								
Main heat exchanger	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324	VCFD324
Additional coil "BV"	VCFD424	-	VCFD424	-	VCFD424	-	VCFD424	-

### Installation accessories

#### Condensate drip

Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
BCZ4	.	.	.	.	.	.	.	.
BCZ6	.	.	.	.	.	.	.	.
<b>Accessory</b>	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
BC9	.	.	.	.	.	.	.	.

## Wall mounting and duct type installation accessories

### Condensate drip

Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
BCZ4	*	*	*	*	*	*	*	*
BCZ6	*	*	*	*	*	*	*	*
Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
BC9	*	*	*	*	*	*	*	*

### Straight suction coupling

Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
RDA000V	*	*						
RDA100V			*	*				
RDA200V					*	*		
RDA300V							*	*
Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
RDAC000V	*	*						
RDAC100V			*	*				
RDAC200V					*	*		
RDAC300V							*	*

### 90° suction coupling.

Accessory	VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
RPA000V	*	*						
RPA100V			*	*				
RPA200V					*	*		
RPA300V							*	*

## PERFORMANCE SPECIFICATIONS

### 2-pipe

	VED030US			VED040US			VED130US			VED140US			
	1	4	6	1	4	6	1	4	6	1	4	6	
	L	M	H	L	M	H	L	M	H	L	M	H	
<b>Heating performance 158 °F / 140 °F (1)</b>													
Heating capacity	MBH	6.2	11.4	12.5	8.1	12.1	13.3	15.0	19.8	21.4	15.4	20.8	22.4
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 <sub>2</sub> 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
<b>Heating performance 113 °F / 104 °F (2)</b>													
Heating capacity	MBH	3.1	5.6	6.2	4.3	6.0	6.6	7.4	9.9	10.6	7.6	10.3	11.1
Water flow rate system side	gpm	0.7	1.3	1.4	0.9	0.9	1.5	1.7	2.2	2.4	1.7	2.3	2.5
Pressure drop system side	ft H <sub>2</sub> 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
<b>Cooling performances 44.6 °F / 53.6 °F (3)</b>													
Cooling capacity	MBH	3.3	4.8	5.3	3.7	5.7	6.3	7.0	9.3	9.9	7.6	10.2	11.0
Sensible cooling capacity	MBH	2.5	3.6	4.0	2.7	4.1	4.4	4.8	6.4	6.8	5.4	7.3	7.8
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 <sub>2</sub> O	1.00	2.34	3.01	1.67	4.01	4.68	5.02	9.03	10.37	3.68	6.69	7.69
<b>Fan</b>													
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous		
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	0.11	0.20	0.24
<b>Duct type fan coil sound data (4)</b>													
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
<b>Diameter hydraulic fittings</b>													
Main heat exchanger	Ø	3/4"			3/4"			3/4"			3/4"		
<b>Power supply</b>													
Power supply		120V~60Hz			120V~60Hz			120V~60Hz			120V~60Hz		

	VED230US			VED240US			VED330US			VED340US			
	1	3	6	1	3	6	1	3	7	1	3	7	
	L	M	H	L	M	H	L	M	H	L	M	H	
<b>Heating performance 158 °F / 140 °F (1)</b>													
Heating capacity	MBH	18.2	22.2	24.4	19.8	24.4	27.0	26.6	31.9	35.9	28.3	34.2	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 <sub>2</sub> 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
<b>Heating performance 113 °F / 104 °F (2)</b>													
Heating capacity	MBH	9.1	11.0	12.1	9.8	12.1	13.4	13.2	15.8	17.8	13.5	17.0	18.5
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 <sub>2</sub> 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
<b>Cooling performances 44.6 °F / 53.6 °F (3)</b>													
Cooling capacity	MBH	8.7	10.5	11.4	9.7	12.2	13.4	12.3	14.8	16.7	13.4	16.1	17.9
Sensible cooling capacity	MBH	6.7	8.1	8.9	7.4	9.0	10.0	9.3	11.1	12.4	9.9	11.9	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	4.1
Pressure drop system side	ft H <sub>2</sub> 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
<b>Fan</b>													
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous		
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	0.13	0.20	0.26	0.13	0.20	0.25	0.13	0.20	0.26	0.14	0.20	0.26
<b>Duct type fan coil sound data (4)</b>													
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
<b>Diameter hydraulic fittings</b>													
Main heat exchanger	∅	3/4"			3/4"			3/4"			3/4"		
<b>Power supply</b>													
Power supply		120V~60Hz			120V~60Hz			120V~60Hz			120V~60Hz		

(1) Room air temperature 68 °F d.b.; Water (in/out) 158 °F/140 °F

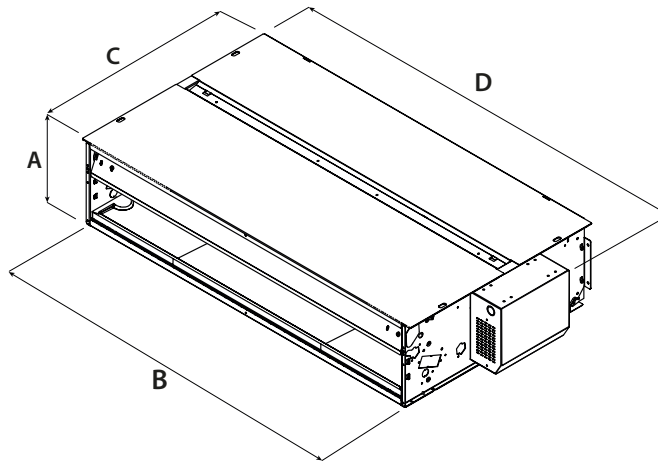
(2) Room air temperature 68 °F d.b.; Water (in/out) 113 °F/104 °F

(3) Room air temperature 80.6 °F d.b./66.2 °F w.b.; Water (in/out) 44.6 °F/53.6 °F

(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583.

**The unit is supplied with nipples for hydraulic connections.**

## DIMENSIONS



		VED030US	VED040US	VED130US	VED140US	VED230US	VED240US	VED330US	VED340US
<b>Dimensions and weights</b>									
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	22.7	22.7	31.8	31.8	40.4	40.4	45.2	45.2

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