

FCWI

Fan coils wall-mount installation

- Versions with internal 2 or 3-way valve
- Electric saving equal to 50% with respect to a fan coil with 3-speed motor
- Total comfort: reduced temperature and humidity oscillations
- Fully silent operation



DESCRIPTION

Fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors. The product is configurable and available with or without (2- or 3-way) valve which ensures compatibility with various system requirements.

VERSIONS

2V Internal 2-way valve and microprocessor control

3V Internal 3-way valve and microprocessor control

VL Without internal valve but with microprocessor control

FEATURES

Case

Aesthetically styled with flat panel:

- Air flow louvered louvers with horizontal adjustment facility
- Motorised deflector louvers that can be activated by remote control TLW3 for vertical orientation of the outlet air with steps fixed positions and continuous oscillation
- Colors pure white pantone GRIS 1C RAL 9010.

Ventilation group

Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.

Brushless motor with continuous speed variation 0-100%.

Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

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).

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.

Air filter

Fan coils are fitted with air filters easy to remove and clean.

Control

The versions with microprocessor control have:

- Timer for programming switch-off or switch-on (TLW4/ PFW4)
- Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW4/ PFW4)
- Night time Well-being Program (TLW4/ PFW4)
- Automatic season change (TLW4/ PFW4)
- Automatic re-start after power cut.
- Possibility of using a contact on the board to switch off the unit (window contact) or change the set point (presence contact) via microswitch.
- Controllable via RS485 port with Modbus RTU communication protocol.

ACCESSORIES

FCWCP: Cold plasma mounting kit

For models with control board installed

FCWI_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCWI series (TLW4 o PFW4)

PFW4: This accessory is essential for fan coil operation (as an alternative to TLW4). The PFW4 wired panel is supplied separately from the fan coil. It is used to set the main device operating parameters, and is essential for setting the Modbus address of the unit (handy only if you want to command the unit via the RS-485 port).

TLW4: Mandatory accessory. Infrared remote control with liquid crystal display for controlling all unit functions. The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil. The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.



PFW4



TLW4

VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

FIHW: Electronic board allowing FCW/FCWI units to be controlled via the user interfaces of the VMF system (VMF-E3/E4, VMHI, VMF-DSK and DI24) and monitored via the VMF-E6 centraliser in a similar way to VMF-E19 thermostats or GLL/N - GLF/N grids.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	FCWI23VL	FCWI33VL	FCWI43VL	FCWI53VL	FCWI232V	FCWI233V
PFW4 (1)	*	*	*	*	*	*
TLW4 (1)	*	*	*	*	*	*

Accessory	FCWI332V	FCWI333V	FCWI432V	FCWI433V	FCWI532V	FCWI533V
PFW4 (1)	*	*	*	*	*	*
TLW4 (1)	*	*	*	*	*	*

(1) Mandatory accessory.

Plasmacluster mounting kit

Accessory	FCWI23VL	FCWI33VL	FCWI43VL	FCWI53VL	FCWI232V	FCWI233V	FCWI332V	FCWI333V	FCWI432V	FCWI433V	FCWI532V	FCWI533V
FCWCP	*	*	*	*	*	*	*	*	*	*	*	*

VMF system

Accessory	FCWI23VL	FCWI33VL	FCWI43VL	FCWI53VL	FCWI232V	FCWI233V
VMF-485LINK	*	*	*	*	*	*
VMHI						*

Accessory	FCWI332V	FCWI333V	FCWI432V	FCWI433V	FCWI532V	FCWI533V
VMF-485LINK	*	*	*	*	*	*
VMHI						*

Accessory	FCWI23VL	FCWI33VL	FCWI43VL	FCWI53VL	FCWI232V	FCWI233V
FIHW	*	*	*	*	*	*

Accessory	FCWI332V	FCWI333V	FCWI432V	FCWI433V	FCWI532V	FCWI533V
FIHW	*	*	*	*	*	*

The VMF-485LINK accessory is not compatible with radiant floor heating systems.

PERFORMANCE SPECIFICATIONS

2-pipe

	FCWI23VL			FCWI33VL			FCWI43VL			FCWI53VL			FCWI232V			FCWI233V		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H

Heating performance 70 °C / 60 °C (1)

Heating capacity	kW	3,12	4,52	4,75	3,46	5,33	5,74	6,36	9,24	9,86	8,31	13,80	15,24	2,57	3,73	4,46	2,57	3,73	4,46
Water flow rate system side	l/h	274	397	417	304	468	504	558	811	865	728	1.147	1.335	226	327	392	226	327	392
Pressure drop system side	kPa	8	16	17	9	19	22	16	30	34	10	23	30	11	21	29	11	21	29

Heating performance 45 °C / 40 °C (2)

Heating capacity	kW	1,55	2,25	2,37	1,71	2,65	2,86	3,17	4,60	4,91	4,16	6,51	7,58	1,28	1,85	2,21	1,28	1,85	2,21
Water flow rate system side	l/h	269	390	411	298	461	496	549	798	851	722	1.131	1.316	222	323	385	222	323	385
Pressure drop system side	kPa	8	16	17	9	19	21	15	30	32	10	22	29	11	21	29	11	21	29

Cooling performance 7 °C / 12 °C (3)

Cooling capacity	kW	1,50	2,15	2,27	1,65	2,54	2,74	3,03	4,41	4,70	4,46	6,51	7,43	1,20	1,79	2,10	1,20	1,79	2,10
Sensible cooling capacity	kW	1,27	1,82	1,92	1,40	2,15	2,24	2,38	3,43	3,61	3,34	5,06	5,78	1,02	1,51	1,78	1,02	1,51	1,78
Water flow rate system side	l/h	258	369	391	284	437	471	521	758	809	765	1.117	1.275	207	308	362	207	308	362
Pressure drop system side	kPa	8	15	16	8	18	20	17	27	30	12	22	28	10	19	26	10	19	26

Fan

Type	type	Tangential																	
Fan motor	type	Inverter																	
Number	no.	1			1			1			1			1			1		
Air flow rate	m³/h	250	400	440	290	450	490	450	690	760	590	960	1210	200	300	400	200	300	400
Input power	W	9	17	19	9	17	20	13	27	34	17	35	58	9	17	19	9	17	19

Fan coil sound data (4)

Sound power level	dB(A)	37,0	50,0	52,0	38,0	50,0	52,0	41,0	53,0	55,0	44,0	54,0	60,0	37,0	50,0	52,0	37,0	50,0	52,0
Sound pressure level	dB(A)	29,0	42,0	44,0	30,0	42,0	44,0	33,0	45,0	47,0	36,0	46,0	52,0	29,0	42,0	44,0	29,0	42,0	44,0

Diameter hydraulic fittings

Main heat exchanger	Ø	1/2"			1/2"			1/2"			3/4"			1/2"			1/2"		
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Power supply

Power supply	V/Ph/Hz	230V~50Hz																
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	FCWI332V			FCWI333V			FCWI432V			FCWI433V			FCWI532V			FCWI533V		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H

Heating performance 70 °C / 60 °C (1)

Heating capacity	kW	3,01	5,15	5,51	3,01	5,15	5,51	6,21	8,53	9,18	6,21	8,53	9,18	8,15	11,82	13,96	8,15	11,82	13,96
Water flow rate system side	l/h	265	452	484	265	452	484	545	749	805	545	749	805	714	1.036	1.224	714	1.036	1.224
Pressure drop system side	kPa	11	30	34	11	30	34	21	36	41	21	36	41	10	21	28	10	21	28

Heating performance 45 °C / 40 °C (2)

Heating capacity	kW	1,50	2,56	2,74	1,50	2,56	2,74	3,09	4,24	4,56	3,09	4,24	4,56	4,05	5,91	6,98	4,05	5,91	6,98
Water flow rate system side	l/h	260	445	476	260	445	477	536	736	793	536	736	793	704	1.027	1.213	704	1.027	1.213
Pressure drop system side	kPa	11	30	34	11	30	34	20	35	40	20	35	40	11	22	30	11	22	30

Cooling performance 7 °C / 12 °C (3)

Cooling capacity	kW	1,44	2,46	2,63	1,44	2,46	2,63	2,96	4,07	4,38	2,96	4,07	4,38	4,05	6,01	6,98	4,05	6,01	6,98
Sensible cooling capacity	kW	1,22	2,08	2,15	1,22	2,08	2,15	2,32	3,16	3,36	2,32	3,16	3,36	3,04	4,67	5,44	3,04	4,67	5,44
Water flow rate system side	l/h	248	423	453	248	426	453	509	699	753	509	699	753	695	1.032	1.198	695	1.032	1.198
Pressure drop system side	kPa	11	28	32	11	28	32	18	32	37	18	32	37	11	23	30	11	23	30

Fan

Type	type	Tangential																	
Fan motor	type	Inverter																	
Number	no.	1			1			1			1			1			1		
Air flow rate	m³/h	250	430	460	250	430	460	430	620	690	430	620	690	530	870	1110	530	870	1110
Input power	W	9	17	20	9	17	20	13	27	34	13	27	34	17	35	58	17	35	58

Fan coil sound data (4)

Sound power level	dB(A)	38,0	50,0	52,0	38,0	50,0	52,0	41,0	53,0	55,0	41,0	53,0	55,0	44,0	54,0	60,0	44,0	54,0	60,0
Sound pressure level	dB(A)	30,0	42,0	44,0	30,0	42,0	44,0	33,0	45,0	47,0	33,0	45,0	47,0	36,0	46,0	52,0	36,0	46,0	52,0

Diameter hydraulic fittings

Main heat exchanger	Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"		
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Power supply

Power supply	V/Ph/Hz	230V~50Hz																
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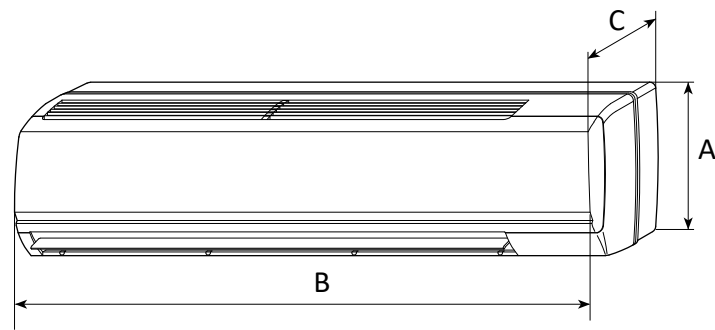
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT (listing FCU AERMEC 2025)

(3) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT (listing FCU AERMEC 2025)

(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		FCWI23VL	FCWI33VL	FCWI43VL	FCWI53VL	FCWI232V	FCWI233V
Dimensions and weights							
A	mm	298	305	360	365	298	298
B	mm	880	990	1170	1450	880	880
C	mm	205	210	220	230	205	205
Empty weight	kg	9	10	19	28	9	9

		FCWI332V	FCWI333V	FCWI432V	FCWI433V	FCWI532V	FCWI533V
Dimensions and weights							
A	mm	305	305	360	360	365	365
B	mm	990	990	1170	1170	1450	1450
C	mm	210	210	220	220	230	230
Empty weight	kg	10	10	19	19	28	28

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com