

FCW

Fan coils wall-mount installation



- Versions with internal 2 or 3-way valve
- Compact dimensions



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.

To respond to the various system requirements, the product is configurable and available with or without (2- or 3-way) valve, as well as with or without control board, which ensures compatibility with various system requirements. Fan coils without control board must be necessarily combined with an external control device.

VERSIONS

- 2V** Internal 2-way valve and microprocessor control
- 2VN** Internal 2-way valve without microprocessor control
- 3V** Internal 3-way valve and microprocessor control
- 3VN** Internal 3-way valve without microprocessor control
- VL** Without internal valve but with microprocessor control
- VLN** Without internal valve and microprocessor control

FEATURES

Case

- Aesthetically styled with flat panel:
- Microprocessor control
- Air flow louvered louvers with horizontal adjustment facility

- Colors pure white pantone GRIS 1C RAL 9010.

Ventilation group

- Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.
- Three-speed cross flow fan.

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 e PFW5)
 - Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW4 e PFW5)
 - Night time Well-being Program (TLW4)
 - Automatic season change (TLW4 e PFW5)
 - Automatic re-start after power cut.

ACCESSORIES

FCWCP: Cold plasma mounting kit

For models with control board installed

FCW_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCW series (TLW4 o PFW5)

PFW5: This accessory is essential for fan coil operation (as an alternative to TLW4). The PFW5 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.



For models without control board installed

FCW_2VN, 3VN, VLN a user interface must be mounted outside the fan coil, using either a visible or a recessed wall-mount installation.

To make the selection please refer to the "control panels" or "VMF system shett" where you will find comprehensive information on this topic.

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.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	FCW23VL	FCW33VL	FCW43VL	FCW53VL	FCW232V	FCW233V
PFW5 (1)	*	*	*	*	*	*
TLW4 (1)	*	*	*	*	*	*

Accessory	FCW332V	FCW333V	FCW432V	FCW433V	FCW532V	FCW533V
PFW5 (1)	*	*	*	*	*	*
TLW4 (1)	*	*	*	*	*	*

(1) Mandatory accessory.

Cold plasma mounting kit

Accessory	FCW23VL	FCW33VL	FCW43VL	FCW53VL	FCW232V	FCW232VN	FCW233V	FCW233VN	FCW332V	FCW332VN
FCWCP	*	*	*	*	*	*	*	*	*	*

Accessory	FCW333V	FCW333VN	FCW432V	FCW432VN	FCW433V	FCW433VN	FCW532V	FCW532VN	FCW533V	FCW533VN
FCWCP	*	*	*	*	*	*	*	*	*	*

VMF system

Accessory	FCW23VL	FCW33VL	FCW43VL	FCW53VL	FCW232V	FCW233V
VMF-485LINK	*	*	*	*	*	*

Accessory	FCW332V	FCW333V	FCW432V	FCW433V	FCW532V	FCW533V
VMF-485LINK	*	*	*	*	*	*

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

PERFORMANCE SPECIFICATIONS

2-pipe

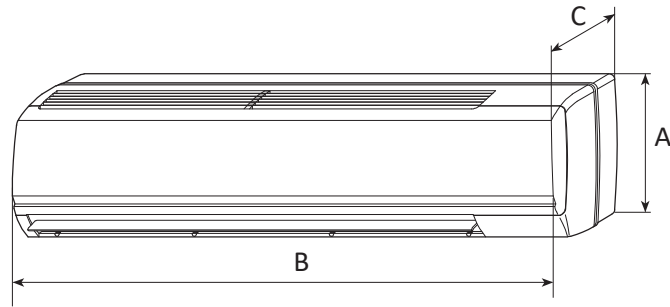
	FCW23VL			FCW33VL			FCW43VL			FCW53VL			FCW232V			FCW233V					
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H			
Heating performance 70 °C / 60 °C (1)																					
Heating capacity	kW			2,85	3,66	4,29	3,73	4,51	5,24	6,44	7,84	8,56	8,20	13,06	15,28	2,35	3,02	4,03	2,35	3,02	4,03
Water flow rate system side	l/h			250	321	377	328	396	460	565	688	751	718	1145	1339	206	265	354	206	265	354
Pressure drop system side	kPa			4	6	9	9	12	16	16	22	26	10	23	30	9	14	24	9	14	24
Heating performance 45 °C / 40 °C (2)																					
Heating capacity	kW			1,42	1,82	2,14	1,85	2,24	2,61	3,21	3,90	4,26	4,10	6,50	7,60	1,17	1,50	2,00	1,17	1,50	2,00
Water flow rate system side	l/h			246	316	371	322	390	453	556	677	739	712	1129	1320	203	261	348	203	261	348
Pressure drop system side	kPa			4	6	8	9	12	16	15	22	25	10	22	29	9	14	24	9	14	24
Cooling performance 7 °C / 12 °C																					
Cooling capacity	kW			1,37	1,74	2,05	1,78	2,15	2,50	3,07	3,74	4,08	4,40	6,50	7,45	1,10	1,45	1,90	1,10	1,45	1,90
Sensible cooling capacity	kW			1,16	1,47	1,73	1,51	1,82	2,04	2,59	3,10	3,47	3,30	5,05	5,80	0,92	1,20	1,55	0,92	1,20	1,55
Water flow rate system side	l/h			236	299	353	306	370	430	528	643	702	755	1115	1278	189	249	327	189	249	327
Pressure drop system side	kPa			5	7	9	8	11	15	15	21	26	12	24	30	9	14	23	9	14	23
Fan																					
Type	type			Tangential			Tangential			Tangential			Tangential			Tangential					
Fan motor	type			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous					
Number	no.			1			1			1			1			1					
Air flow rate	m ³ /h			280	340	389	330	400	446	476	602	684	592	945	1179	270	330	380	270	330	380
Input power	W			23	24	27	22	23	27	31	41	48	38	55	75	23	24	27	23	24	27
Fan coil sound data (3)																					
Sound power level	dB(A)			42,0	48,0	53,0	42,0	48,0	53,0	44,0	49,0	54,0	44,0	54,0	60,0	42,0	48,0	53,0	42,0	48,0	53,0
Sound pressure	dB(A)			34,0	39,5	44,5	34,0	39,5	44,5	35,5	40,5	45,5	35,5	45,5	51,5	34,0	39,5	44,5	34,0	39,5	44,5
Diametre hydraulic fittings																					
Main heat exchanger	Ø			1/2"			1/2"			1/2"			3/4"			1/2"			1/2"		
Power supply																					
Power supply				230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		
	FCW332V			FCW333V			FCW432V			FCW433V			FCW532V			FCW533V					
	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			3,25	4,36	5,03	3,25	4,36	5,03	6,29	7,23	7,97	6,29	7,23	7,97	8,04	11,80	14,00	8,04	11,80	14,00
Water flow rate system side	l/h			286	383	442	286	383	442	552	635	699	552	635	699	704	1034	1227	704	1034	1227
Pressure drop system side	kPa			13	22	29	13	22	29	21	27	32	21	27	32	10	21	28	10	21	28
Heating performance 45 °C / 40 °C (2)																					
Heating capacity	kW			1,62	2,17	2,50	1,62	2,17	2,50	3,13	3,60	3,96	3,13	3,60	3,96	4,00	5,90	7,00	4,00	5,90	7,00
Water flow rate system side	l/h			281	377	434	281	377	434	543	624	688	543	624	688	695	1025	1216	695	1025	1216
Pressure drop system side	kPa			13	22	29	13	22	29	20	26	31	20	26	31	11	22	30	11	22	30
Cooling performance 7 °C / 12 °C																					
Cooling capacity	kW			1,55	2,08	2,40	1,55	2,08	2,40	3,00	3,45	3,80	3,00	3,45	3,80	4,00	6,00	7,00	4,00	6,00	7,00
Sensible cooling capacity	kW			1,28	1,68	1,97	1,28	1,68	1,97	2,01	2,50	2,85	2,01	2,50	2,85	2,85	4,50	5,30	2,85	4,50	5,30
Water flow rate system side	l/h			267	358	413	267	358	413	516	593	654	516	593	654	686	1030	1201	686	1030	1201
Pressure drop system side	kPa			13	22	29	13	22	29	21	27	32	21	27	32	11	23	30	11	23	30
Fan																					
Type	type			Tangential			Tangential			Tangential			Tangential			Tangential					
Fan motor	type			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous					
Number	no.			1			1			1			1			1					
Air flow rate	m ³ /h			320	390	440	320	390	440	370	470	540	370	470	540	535	859	1082	535	859	1082
Input power	W			22	23	27	22	23	27	31	41	48	31	41	48	38	55	75	38	55	75
Fan coil sound data (3)																					
Sound power level	dB(A)			42,0	48,0	53,0	42,0	48,0	53,0	44,0	49,0	54,0	44,0	49,0	54,0	44,0	54,0	60,0	44,0	54,0	60,0
Sound pressure	dB(A)			34,0	39,5	44,5	34,0	39,5	44,5	35,5	40,5	45,5	35,5	40,5	45,5	35,5	45,5	51,5	35,5	45,5	51,5
Diametre hydraulic fittings																					
Main heat exchanger	Ø			1/2"			1/2"			1/2"			1/2"			3/4"			3/4"		
Power supply																					
Power supply				230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(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

(3) 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



		FCW23VL	FCW33VL	FCW43VL	FCW53VL	FCW232V	FCW233V
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
		FCW332V	FCW333V	FCW432V	FCW433V	FCW532V	FCW533V
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.

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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.

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

Accessory	FCWI332V	FCWI333V	FCWI432V	FCWI433V	FCWI532V	FCWI533V
VMF-485LINK

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	1147	1335	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	1131	1316	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																					
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	1117	1275	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 (3)																					
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	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"		
Power supply																					
Power supply	230V~50Hz																				

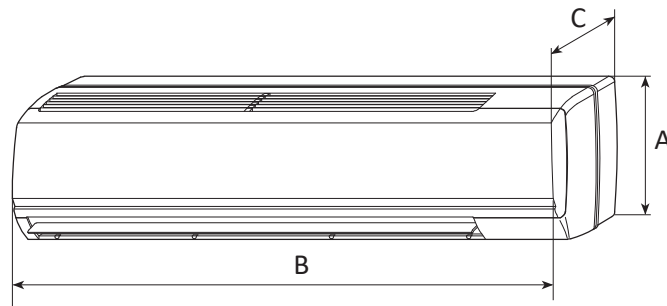
	FCWI332V			FCWI333V			FCWI432V			FCWI433V			FCWI532V			FCWI533V					
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H			
Heating performance 70 °C / 60 °C (1)																					
Heating capacity	kW			3,01	5,15	5,51	3,01	5,15	5,51	6,21	8,53	9,18	6,21	8,53	9,18	8,15	11,82	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	1036	1224	714	1036	1224
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	1027	1213	704	1027	1213
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																					
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	1032	1198	695	1032	1198
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	m ³ /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 (3)																					
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	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"		
Power supply																					
Power supply	230V~50Hz																				

(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

(3) 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.

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