One-way Cassette Fan coil unit Carisma Whisper

CFF-ECM-OW

TABLE OF CONTENTS

EUROVENT
CERTIFIED
PERFORMANCE
www.eurovent-certification.com

Sabiana take part to the Eurovent program of fan coil performance certification. The official figures are published in the web site www.eurovent-certification.com. The tested performances are:

Total cooling emission at the following conditions:
- water temperature   +7 ℃ E.W.T.   +12 ℃ L.W.T.
- air temperature   +27 ℃ d.b.   +19 ℃ w.b.

Heating emission (2 pipe units) at the following conditions:
- water temperature   +45 ℃ E.W.T.   +40 ℃ L.W.T.
- air temperature   +20 ℃

Static pressure   **Fan absorption**

Sensible cooling emission at the following conditions:
- water temperature   +7 ℃ E.W.T.   +12 ℃ L.W.T.
- air temperature   +27 ℃ d.b.   +19 ℃ w.b.

Heating emission (4 pipe units) at the following conditions:
- water temperature   +65 ℃ E.W.T.   +55 ℃ L.W.T.
- air temperature   +20 ℃

Water side pressure drop   **Sound power**

INTRODUCTION

The Carisma Whisper CFF-ECM-OW fan coil unit combines a reduced dimension with a modern aesthetic, while maintaining great performances in terms of sound and consumption.

Its overall reduced height and the limited weight allow an easy installation into the false ceilings with limited height, allowing:
- lower installation costs
- rooms with greater living height
- buildings with several floors at the same living height
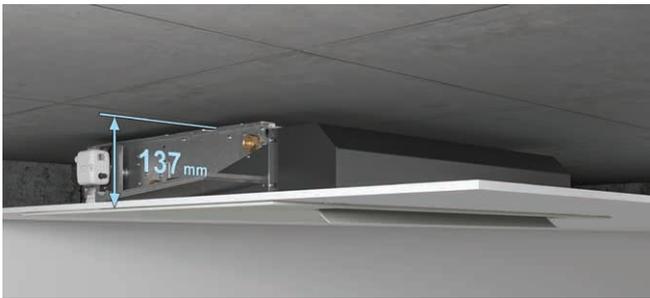
Its wide motorized flap allows a wide air distribution inside the room.

The excellent values in terms of sound levels have been maintained in all working conditions, without any resonance phenomenon at any frequency.

VERSION AND MAIN COMPONENTS

This range includes 4 sizes (from 75 to 575 m³/h) with a 2 row coil.

The CFF-ECM-OW range is perfect to meet all air-conditioning requirements of residential and work environments like offices, shops, restaurants and hotel rooms.

The CFF-ECM-OW range makes use of the excellent experience gained with the fan coil units with inverter board, first in the world in production since 2009, and which have had great success on all markets.
The latest synchronous inverter driven BLAC brushless and sensorless electronic motor with permanent magnets is controlled by an Inverter board designed and developed in Italy.
The electronic board is directly fitted on the motor.
The air flow can be varied continuously with a 1-10 V signal.
The continuous air flow control improves the acoustic comfort and allows a more punctual reply to the variation of the thermal loads and a greater stability of the requested ambient temperature.
The extreme efficiency, also at a low speed, makes possible a great reduction in electric consumption with absorption values, under normal operating conditions, that are no greater than 5 Watt.

Diffuser

Of galvanised steel and painted in colour RAL 9003 (white).
It is supplied with separated code.

Air supply louver

The air supply louver, of adjustable and motorized type, is of metal painted in colour RAL 9003 (white).

Inner casing

Made of 1 mm galvanized steel, a rear panel and two lateral sides insulated with 3 mm polyolefin (PO) foam (B-s2-d0 EN 13501-1).

Filter

Polypropylene cellular fabric regenerating filter.

Fan assembly

Made of plastic tangential fan with anti-vibration fins.
The fan hub, dynamycally and statically balanced, is directly secured onto the motor shaft.

Electronic board and remote control

The unit is equipped with electronic control board and with infra-red remote control.

The electronic board fitted on the unit is equipped with a microprocessor with BLE / WiFi feature, that allows to control at distance or remotely all the units installed.
An accessory kit for the communication via ModBus protocol is available.

Electronic motor

Electronic motor with three phase permanent magnet brushless electronic motor that is controlled with reconstructed current according to a BLAC sinusoidal wave.
The inverter board that controls the motor operation is powered by 230 Volt, single-phase and, with a switching system, it generates a three-phase frequency modulated, wave form power supply.
The electric power supply required for the machine is therefore single-phase with voltage of 230 V and frequency of 50 - 60 Hz.

Coil

It is manufactured from drawn copper tube and the aluminium fins are mechanically bonded onto the tube by an expansion process.
The coil has two Ø 1/2 inch BSP internal connections.
The coil has Ø 1/8" inch BSP air vent and drain.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
The position of the hydraulic connections is always on the left side (see the following technical drawings).

Condensate collection tray

Made of AISI 304 steel and fixed to the internal structure.

Condensate drain pump

Condensate drain pump directly managed from the electronic board that is combined with a floating system for the condensate level control and alarm.
The pump is included.

Valves (accessory)

The following valve kits are available for all sizes:
- 2 way
- 3 way

The valves can be ordered separately and easily installed on the basic units without valves or they can be directly fitted in the factory.

EUROVENT CERTIFICATION

The following standard rating conditions are used:

COOLING
Entering air temperature: + 27 °C d.b. + 19 °C w.b.
Water temperature: +7 °C E.W.T. +12 °C L.W.T.

HEATING
Entering air temperature: + 20 °C
Water temperature: +45 °C E.W.T.   +40 °C L.W.T.

MODEL		10						20						30					
Inverter power		1	2	3,5	5	7,5	10	1	2	3,5	5	7,5	10	1	2	3,5	5	7,5	10
			MIN		MED		MAX		MIN		MED		MAX		MIN		MED		MAX
Eurovent certified performances.		-	(E)	-	(E)	-	(E)	-	(E)	-	(E)	-	(E)	-	(E)	-	(E)	-	(E)
Air flow	m³/h	75	90	110	130	170	205	125	145	175	205	255	305	190	225	270	315	395	470
Cooling total emission (E)	kW	0,40	0,48	0,58	0,66	0,80	0,92	0,67	0,83	1,01	1,15	1,39	1,62	0,92	1,08	1,56	1,91	2,30	2,61
Cooling sensible emission (E)	kW	0,30	0,36	0,44	0,52	0,64	0,75	0,50	0,62	0,76	0,88	1,08	1,28	0,67	0,79	1,15	1,41	1,72	1,99
Heating emission (E)	kW	0,55	0,60	0,68	0,78	0,96	1,10	0,97	1,01	1,16	1,32	1,57	1,81	1,52	1,62	1,85	2,10	2,53	2,90
Dp Cooling (E)	kPa	4,9	6,0	7,5	9,1	12,0	14,7	3,1	3,6	4,3	4,9	6,1	7,4	4,5	5,4	8,6	11,5	15,2	18,6
Dp Heating (E)	kPa	6,1	6,7	8,0	9,6	13,0	16,2	3,7	3,9	4,4	5,0	6,1	7,3	7,1	7,7	9,2	11,0	14,6	18,2
Fan (E)	W	3,2	3,5	4,2	5,2	7,4	10,3	3,7	4,0	4,9	6,3	9,5	14,0	4,1	4,8	6,3	8,6	14,1	21,6
Sound power (Lw) (E)	dB(A)	31	33	36	40	45	50	30	33	38	42	47	52	32	34	39	43	47	53
Sound pressure (Lp) [1]	dB(A)	22	24	27	31	36	41	21	24	29	33	38	43	23	25	30	34	38	44

MODEL		40					
Inverter power		1	2	3,5	5	7,5	10
			MIN		MED		MAX
Eurovent certified performances.		-	(E)	-	(E)	-	(E)
Air flow	m³/h	220	260	320	380	480	575
Cooling total emission (E)	kW	1,14	1,45	2,06	2,50	2,97	3,36
Cooling sensible emission (E)	kW	0,82	1,05	1,48	1,80	2,17	2,49
Heating emission (E)	kW	1,79	1,91	2,23	2,58	3,13	3,62
Dp Cooling (E)	kPa	7,3	10,2	17,3	23,7	31,7	39,1
Dp Heating (E)	kPa	11,7	12,9	16,3	20,6	28,3	36,2
Fan (E)	W	4,7	5,4	7,2	9,9	16,4	25,4
Sound power (Lw) (E)	dB(A)	33	37	41	45	51	55
Sound pressure (Lp) [1]	dB(A)	24	28	32	36	42	46

(E)   Eurovent certified performance.
(1)   The sound pressure levels are 9 dB (A) lower than the sound power levels, apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.

COOLING EMISSION

Entering air temperature: 27 °C – R.H.: 50%

Model	Vdc	Qv	WT: 7/12 °C				WT: 8/13 °C				WT: 10/15 °C				WT: 12/17 °C			
			Pc	Ps	Qw	Dp(c)	Pc	Ps	Qw	Dp(c)	Pc	Ps	Qw	Dp(c)	Pc	Ps	Qw	Dp(c)
		m³/h	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa
10	10	205	0,99	0,73	172	16,6	0,88	0,70	154	13,9	0,69	0,66	120	9,6	0,53	0,53	93	6,7
	7,5	170	0,87	0,63	151	13,5	0,78	0,60	135	11,4	0,60	0,56	105	7,9	0,46	0,46	80	5,6
	5	130	0,72	0,51	124	10,1	0,64	0,48	111	8,6	0,50	0,45	86	6,2	0,38	0,38	65	4,5
	3,5	110	0,63	0,44	108	8,3	0,56	0,42	97	7,2	0,43	0,38	75	5,2	0,33	0,33	57	3,9
	2	90	0,52	0,36	90	6,6	0,47	0,34	81	5,8	0,36	0,31	63	4,3	0,27	0,27	47	3,4
	1	75	0,44	0,30	75	5,3	0,39	0,28	68	4,7	0,30	0,26	53	3,7	0,23	0,23	40	3,0
20	10	305	1,76	1,26	306	8,3	1,57	1,20	273	7,1	1,21	1,09	211	5,2	0,91	0,91	160	3,9
	7,5	255	1,51	1,06	261	6,7	1,34	1,01	233	5,8	1,04	0,92	180	4,4	0,78	0,78	136	3,4
	5	205	1,24	0,87	215	5,3	1,11	0,82	192	4,7	0,86	0,75	149	3,7	0,64	0,64	112	3,0
	3,5	175	1,09	0,75	188	4,6	0,97	0,71	169	4,1	0,75	0,64	130	3,3	0,56	0,56	97	2,8
	2	145	0,90	0,62	155	3,8	0,81	0,58	139	3,5	0,62	0,53	107	2,9	0,46	0,46	80	2,6
	1	125	0,72	0,50	124	3,2	0,65	0,47	112	3,0	0,50	0,43	87	2,6	0,38	0,38	66	2,4
30	10	470	2,81	1,97	488	21,0	2,53	1,86	438	17,6	1,96	1,70	341	11,9	1,48	1,48	259	7,9
	7,5	395	2,47	1,71	428	17,1	2,23	1,61	385	14,4	1,73	1,46	300	9,8	1,30	1,30	226	6,7
	5	315	2,05	1,40	355	12,7	1,86	1,32	321	10,9	1,44	1,19	248	7,6	1,07	1,07	186	5,3
	3,5	270	1,68	1,14	290	9,5	1,51	1,08	262	8,2	1,18	0,97	204	5,9	0,89	0,89	153	4,3
	2	225	1,16	0,79	201	5,8	1,05	0,75	181	5,2	0,82	0,68	142	4,0	0,63	0,63	109	3,2
	1	190	0,99	0,67	171	4,9	0,89	0,63	154	4,4	0,70	0,57	121	3,5	0,53	0,53	92	2,9
40	10	575	3,60	2,47	624	44,1	3,26	2,33	565	37,0	2,54	2,12	441	24,2	1,91	1,91	333	15,3
	7,5	480	3,18	2,16	550	35,6	2,88	2,03	498	29,9	2,24	1,83	388	19,7	1,68	1,66	292	12,5
	5	380	2,68	1,79	462	26,5	2,43	1,69	419	22,5	1,89	1,51	327	14,9	1,41	1,36	244	9,6
	3,5	320	2,21	1,47	381	19,3	2,00	1,39	346	16,5	1,56	1,24	270	11,2	1,17	1,12	202	7,4
	2	260	1,56	1,04	269	11,2	1,41	0,98	244	9,7	1,11	0,88	191	6,9	0,84	0,82	145	5,0
	1	220	1,22	0,82	211	8,0	1,11	0,77	191	7,0	0,87	0,69	150	5,2	0,66	0,66	115	3,9

WT: Water temperature
Vdc: Inverter power
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c): Dp Cooling

CFF-ECM-OW | COOLING EMISSION

Entering air temperature 26 °C – R.H.: 50%

Model	Vdc	Qv m³/h	WT: 7 / 12 ℃ Pc kW	Ps kW	Qw l/h	Dp(c) kPa	WT: 8 / 13 ℃ Pc kW	Ps kW	Qw l/h	Dp(c) kPa	WT: 10 / 15 ℃ Pc kW	Ps kW	Qw l/h	Dp(c) kPa	WT: 12 / 17 ℃ Pc kW	Ps kW	Qw l/h	Dp(c) kPa
10	10	205	0,88	0,70	153	13,8	0,78	0,68	136	11,5	0,61	0,61	106	8,0	0,46	0,46	81	5,7
	7,5	170	0,77	0,60	134	11,3	0,68	0,58	119	9,5	0,53	0,53	92	6,7	0,40	0,40	70	4,8
	5	130	0,64	0,48	111	8,6	0,57	0,46	98	7,3	0,43	0,43	75	5,3	0,33	0,33	57	3,9
	3,5	110	0,56	0,42	97	7,2	0,49	0,40	85	6,1	0,38	0,37	66	4,5	0,28	0,28	49	3,5
	2	90	0,47	0,34	81	5,7	0,41	0,33	71	5,0	0,31	0,30	55	3,8	0,23	0,23	41	3,1
	1	75	0,39	0,28	67	4,7	0,34	0,27	60	4,2	0,26	0,25	46	3,3	0,20	0,20	34	2,8
20	10	305	1,56	1,20	271	7,1	1,38	1,15	240	6,1	1,06	1,04	184	4,5	0,79	0,79	138	3,5
	7,5	255	1,34	1,01	231	5,8	1,18	0,96	205	5,0	0,90	0,88	157	3,9	0,67	0,67	117	3,1
	5	205	1,11	0,82	191	4,7	0,98	0,78	169	4,2	0,74	0,71	129	3,3	0,55	0,55	96	2,8
	3,5	175	0,97	0,71	168	4,1	0,86	0,68	148	3,7	0,65	0,61	113	3,0	0,48	0,48	84	2,6
	2	145	0,80	0,58	138	3,5	0,71	0,55	122	3,2	0,54	0,50	93	2,7	0,40	0,40	69	2,4
	1	125	0,64	0,47	111	3,0	0,57	0,44	99	2,8	0,44	0,41	76	2,5	0,33	0,33	57	2,3
30	10	470	2,51	1,87	436	17,6	2,23	1,78	387	14,5	1,71	1,62	298	9,8	1,28	1,28	224	6,6
	7,5	395	2,22	1,62	384	14,4	1,96	1,54	340	11,9	1,50	1,39	261	8,1	1,12	1,12	195	5,6
	5	315	1,84	1,32	318	10,8	1,63	1,25	283	9,1	1,25	1,13	216	6,3	0,93	0,93	161	4,5
	3,5	270	1,50	1,08	260	8,1	1,34	1,02	231	6,9	1,02	0,93	177	5,0	0,76	0,76	132	3,8
	2	225	1,04	0,75	180	5,2	0,93	0,70	160	4,6	0,72	0,66	124	3,6	0,55	0,55	95	3,0
	1	190	0,88	0,63	153	4,4	0,79	0,59	136	3,9	0,61	0,56	106	3,2	0,46	0,46	80	2,7
40	10	575	3,24	2,34	561	36,7	2,88	2,22	499	30,0	2,21	2,02	384	19,3	1,65	1,65	289	12,3
	7,5	480	2,86	2,04	495	29,7	2,54	1,93	441	24,4	1,95	1,74	338	15,7	1,45	1,45	252	10,0
	5	380	2,41	1,69	416	22,3	2,15	1,60	371	18,4	1,64	1,43	283	12,0	1,21	1,21	210	7,8
	3,5	320	1,99	1,39	343	16,3	1,78	1,31	307	13,7	1,36	1,18	234	9,1	1,00	1,00	174	6,1
	2	260	1,40	0,99	242	9,6	1,25	0,92	217	8,2	0,96	0,85	167	5,9	0,72	0,72	125	4,3
	1	220	1,10	0,77	190	6,9	0,98	0,72	170	6,0	0,76	0,67	131	4,5	0,57	0,57	99	3,5

WT: Water temperature
Vdc: Inverter power
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c):   Dp Cooling

Entering air temperature: 25 °C – R.H.: 50%

Model	Vdc	Qv m³/h	WT: 7/12 °C Pc kW	Ps kW	Qw l/h	Dp(c) kPa	WT: 8/13 °C Pc kW	Ps kW	Qw l/h	Dp(c) kPa	WT: 10/15 °C Pc kW	Ps kW	Qw l/h	Dp(c) kPa	WT: 12/17 °C Pc kW	Ps kW	Qw l/h	Dp(c) kPa
10	10	205	0,78	0,68	136	11,5	0,69	0,65	120	9,6	0,53	0,53	93	6,7	0,45	0,45	79	5,5
	7,5	170	0,68	0,58	119	9,5	0,60	0,56	105	8,0	0,46	0,46	81	5,7	0,39	0,39	68	4,7
	5	130	0,56	0,46	98	7,3	0,50	0,44	86	6,2	0,38	0,38	66	4,5	0,30	0,30	52	3,6
	3,5	110	0,49	0,40	85	6,1	0,43	0,38	75	5,2	0,33	0,33	57	4,0	0,25	0,25	43	3,2
	2	90	0,41	0,33	71	5,0	0,36	0,31	62	4,3	0,27	0,27	48	3,4	0,20	0,20	35	2,8
	1	75	0,34	0,27	59	4,1	0,30	0,26	52	3,7	0,23	0,23	40	3,0	0,17	0,17	30	2,6
20	10	305	1,38	1,14	239	6,0	1,21	1,09	211	5,2	0,92	0,92	160	3,9	0,77	0,77	134	3,4
	7,5	255	1,18	0,96	204	5,0	1,03	0,92	180	4,4	0,78	0,78	136	3,5	0,62	0,62	109	3,0
	5	205	0,97	0,78	168	4,2	0,86	0,74	148	3,7	0,65	0,65	112	3,0	0,49	0,49	85	2,6
	3,5	175	0,85	0,68	147	3,7	0,75	0,64	129	3,3	0,56	0,56	98	2,8	0,42	0,42	72	2,5
	2	145	0,70	0,55	122	3,2	0,62	0,53	107	2,9	0,47	0,47	81	2,6	0,34	0,34	60	2,3
	1	125	0,57	0,44	98	2,8	0,50	0,42	86	2,6	0,38	0,38	66	2,4	0,28	0,28	49	2,2
30	10	470	2,22	1,78	386	14,5	1,96	1,69	340	11,9	1,49	1,49	260	8,0	1,11	1,11	194	5,5
	7,5	395	1,95	1,54	339	11,9	1,72	1,46	298	9,8	1,30	1,30	227	6,7	0,97	0,97	169	4,8
	5	315	1,63	1,26	281	9,1	1,43	1,19	247	7,6	1,08	1,08	187	5,3	0,80	0,80	139	3,9
	3,5	270	1,33	1,02	230	6,9	1,17	0,97	203	5,9	0,89	0,89	154	4,3	0,66	0,66	114	3,4
	2	225	0,92	0,70	159	4,5	0,82	0,68	141	4,0	0,63	0,63	109	3,3	0,47	0,47	82	2,8
	1	190	0,78	0,59	136	3,9	0,69	0,57	120	3,5	0,53	0,53	92	2,9	0,40	0,40	70	2,6
40	10	575	2,86	2,22	497	29,9	2,53	2,11	439	24,2	1,92	1,92	334	15,5	1,43	1,43	249	9,9
	7,5	480	2,54	1,94	439	24,3	2,23	1,83	387	19,7	1,69	1,65	293	12,6	1,25	1,25	217	8,2
	5	380	2,14	1,60	370	18,4	1,88	1,51	325	14,9	1,42	1,35	245	9,7	1,04	1,04	180	6,4
	3,5	320	1,77	1,31	305	13,6	1,55	1,24	268	11,2	1,17	1,12	203	7,5	0,86	0,86	149	5,1
	2	260	1,25	0,93	215	8,2	1,10	0,88	190	6,9	0,84	0,82	145	5,0	0,63	0,63	109	3,8
	1	220	0,98	0,73	169	6,0	0,86	0,69	149	5,2	0,66	0,65	115	4,0	0,50	0,50	86	3,2

WT: Water temperature
Vdc: Inverter power
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c): Dp Cooling

HEATING EMISSION

Entering air temperature: 18 °C

| Model	Vdc	Qv m³/h	WT: 70 / 60 °C			WT: 60 / 50 °C			WT: 50 / 40 °C			WT: 50 / 45 °C			WT: 45 / 40 °C		
			Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa
10	10	205	2,35	202	16,7	1,83	157	11,7	1,31	113	7,5	1,47	252	25,3	1,21	208	18,8
	7,5	170	2,03	175	13,3	1,59	136	9,5	1,14	98	6,3	1,27	218	19,9	1,05	180	14,9
	5	130	1,66	142	9,8	1,30	111	7,2	0,93	80	5,0	1,03	178	14,4	0,86	147	11,0
	3,5	110	1,45	125	8,1	1,14	98	6,1	0,82	71	4,4	0,90	155	11,7	0,75	129	9,1
	2	90	1,26	108	6,8	0,99	85	5,2	0,72	62	3,9	0,79	135	9,6	0,65	112	7,5
	1	75	1,17	101	6,2	0,92	79	4,8	0,67	57	3,6	0,73	126	8,6	0,61	104	6,8
20	10	305	3,84	330	7,5	3,00	258	5,6	2,16	186	4,1	2,40	412	10,6	1,98	341	8,3
	7,5	255	3,33	287	6,2	2,61	225	4,8	1,88	162	3,6	2,08	358	8,7	1,72	296	6,8
	5	205	2,79	240	5,1	2,19	188	4,1	1,59	136	3,2	1,74	299	6,9	1,44	248	5,5
	3,5	175	2,45	211	4,4	1,93	166	3,6	1,40	120	2,9	1,53	263	5,8	1,27	218	4,8
	2	145	2,15	185	3,9	1,69	145	3,3	1,23	106	2,7	1,34	230	5,0	1,11	191	4,2
	1	125	2,05	176	3,8	1,61	139	3,2	1,17	101	2,7	1,27	219	4,8	1,06	182	4,0
30	10	470	6,14	528	18,6	4,83	415	13,1	3,50	301	8,5	3,83	659	28,2	3,18	547	21,1
	7,5	395	5,34	459	14,9	4,20	362	10,7	3,06	263	7,1	3,33	572	22,3	2,76	475	16,8
	5	315	4,44	382	11,2	3,50	301	8,2	2,55	220	5,7	2,76	475	16,5	2,30	395	12,6
	3,5	270	3,90	336	9,3	3,08	265	6,9	2,25	194	4,9	2,43	417	13,5	2,02	347	10,4
	2	225	3,42	295	7,8	2,71	233	5,9	1,98	171	4,3	2,13	366	11,1	1,77	305	8,7
	1	190	3,21	276	7,1	2,54	218	5,5	1,86	160	4,1	1,99	343	10,1	1,66	286	7,9
40	10	575	7,64	657	36,8	6,02	518	25,4	4,39	378	15,8	4,76	819	56,9	3,95	680	42,1
	7,5	480	6,60	567	28,7	5,21	448	20,1	3,81	328	12,7	4,11	707	44,1	3,42	588	32,8
	5	380	5,44	468	20,9	4,30	370	14,8	3,15	271	9,6	3,38	582	31,7	2,82	485	23,8
	3,5	320	4,70	405	16,5	3,72	320	11,9	2,74	235	7,9	2,92	503	24,8	2,44	419	18,8
	2	260	4,04	347	13,0	3,20	275	9,5	2,36	203	6,5	2,51	431	19,3	2,09	360	14,7
	1	220	3,78	325	11,8	3,00	258	8,7	2,21	190	6,0	2,35	404	17,4	1,96	337	13,3

WT: Water temperature
Vdc: Inverter power
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h):   Dp Heating

Entering air temperature: 20 °C

Model	Vdc	Qv	WT: 70 / 60 °C			WT: 60 / 50 °C			WT: 50 / 40 °C			WT: 50 / 45 °C			WT: 45 / 40 °C		
			Ph	Qw	Dp(h)	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)
		m³/h	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa
10	10	205	2,23	192	15,4	1,72	148	10,7	1,20	103	6,7	1,36	234	22,3	1,10	190	16,2
	7,5	170	1,93	166	12,3	1,49	128	8,7	1,04	90	5,7	1,18	202	17,6	0,96	165	13,0
	5	130	1,58	136	9,2	1,22	105	6,7	0,86	74	4,6	0,96	165	12,8	0,78	134	9,6
	3,5	110	1,38	119	7,6	1,07	92	5,7	0,75	65	4,0	0,84	144	10,5	0,68	118	8,0
	2	90	1,20	103	6,4	0,93	80	4,9	0,66	57	3,6	0,73	125	8,6	0,60	102	6,7
	1	75	1,12	96	5,8	0,87	74	4,5	0,61	53	3,4	0,68	116	7,8	0,55	95	6,1
20	10	305	3,66	315	7,0	2,82	243	5,2	1,98	170	3,8	2,22	382	9,5	1,81	311	7,3
	7,5	255	3,18	273	5,9	2,46	211	4,5	1,73	149	3,4	1,93	332	7,8	1,57	270	6,1
	5	205	2,66	229	4,8	2,06	177	3,8	1,46	125	3,0	1,61	278	6,2	1,32	227	5,0
	3,5	175	2,34	201	4,2	1,81	156	3,5	1,29	111	2,8	1,42	244	5,3	1,16	199	4,4
	2	145	2,05	176	3,8	1,59	137	3,2	1,13	97	2,6	1,24	213	4,6	1,01	174	3,9
	1	125	1,95	168	3,6	1,52	130	3,1	1,08	93	2,6	1,18	203	4,4	0,97	166	3,7
30	10	470	5,85	503	17,2	4,54	391	12,0	3,23	277	7,6	3,55	611	24,9	2,90	499	18,2
	7,5	395	5,09	438	13,8	3,96	340	9,8	2,82	242	6,4	3,09	531	19,8	2,53	434	14,6
	5	315	4,23	364	10,5	3,30	283	7,6	2,35	202	5,2	2,56	441	14,7	2,10	361	11,0
	3,5	270	3,72	320	8,7	2,90	249	6,4	2,08	179	4,5	2,25	387	12,1	1,85	318	9,2
	2	225	3,26	281	7,3	2,55	219	5,5	1,83	157	4,0	1,98	340	10,0	1,62	279	7,7
	1	190	3,06	263	6,7	2,39	206	5,1	1,72	148	3,8	1,85	318	9,1	1,52	261	7,1
40	10	575	7,27	626	33,8	5,67	487	23,0	4,05	348	13,9	4,42	759	50,0	3,62	622	36,2
	7,5	480	6,29	541	26,5	4,90	422	18,2	3,51	302	11,2	3,81	656	38,9	3,13	538	28,3
	5	380	5,18	446	19,3	4,05	348	13,5	2,91	250	8,6	3,14	540	28,0	2,58	443	20,6
	3,5	320	4,48	386	15,3	3,51	302	10,9	2,52	217	7,1	2,71	467	22,0	2,23	384	16,3
	2	260	3,85	331	12,1	3,02	259	8,8	2,18	187	5,9	2,33	400	17,2	1,91	329	12,9
	1	220	3,61	310	11,0	2,83	243	8,0	2,04	176	5,5	2,18	375	15,5	1,79	309	11,7

WT: Water temperature
Vdc: Inverter power
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h): Dp Heating

CFF-ECM-OW | **HEATING EMISSION**

Entering air temperature: 22 °C

Model	Vdc	Qv m³/h	WT: 70 / 60 °C			WT: 60 / 50 °C			WT: 50 / 40 °C			WT: 50 / 45 °C			WT: 45 / 40 °C		
			Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa
10	10	205	2,12	183	14,2	1,61	139	9,7	1,09	94	6,0	1,25	216	19,5	1,00	172	13,9
	7,5	170	1,84	158	11,4	1,40	120	8,0	0,95	82	5,1	1,08	186	15,5	0,87	149	11,2
	5	130	1,50	129	8,5	1,14	98	6,1	0,78	67	4,2	0,88	152	11,3	0,71	122	8,4
	3,5	110	1,31	113	7,1	1,00	86	5,3	0,69	59	3,7	0,77	133	9,3	0,62	106	7,0
	2	90	1,14	98	6,0	0,87	75	4,6	0,60	52	3,4	0,67	116	7,7	0,54	93	5,9
	1	75	1,06	91	5,5	0,81	70	4,2	0,56	48	3,2	0,62	107	7,0	0,50	86	5,4
20	10	305	3,48	299	6,6	2,64	227	4,9	1,81	155	3,5	2,05	352	8,5	1,64	282	6,4
	7,5	255	3,02	259	5,5	2,30	198	4,2	1,58	136	3,2	1,78	306	7,0	1,42	245	5,4
	5	205	2,53	217	4,6	1,93	166	3,6	1,33	114	2,9	1,49	256	5,7	1,19	205	4,5
	3,5	175	2,22	191	4,0	1,70	146	3,3	1,17	101	2,7	1,31	225	4,9	1,05	180	4,0
	2	145	1,94	167	3,6	1,49	128	3,0	1,03	89	2,6	1,14	197	4,3	0,92	158	3,6
	1	125	1,85	159	3,5	1,42	122	2,9	0,99	85	2,5	1,09	188	4,1	0,88	151	3,4
30	10	470	5,56	478	15,9	4,26	366	10,9	2,95	253	6,7	3,28	564	21,8	2,63	453	15,6
	7,5	395	4,84	416	12,8	3,71	319	8,9	2,58	221	5,7	2,85	490	17,4	2,29	394	12,6
	5	315	4,02	346	9,7	3,09	266	7,0	2,15	185	4,7	2,37	407	13,0	1,91	328	9,6
	3,5	270	3,54	304	8,1	2,72	234	6,0	1,90	163	4,2	2,08	358	10,7	1,68	288	8,0
	2	225	3,11	267	6,9	2,40	206	5,1	1,68	144	3,7	1,83	314	8,9	1,47	253	6,8
	1	190	2,91	250	6,3	2,25	193	4,8	1,57	135	3,5	1,71	294	8,1	1,38	237	6,2
40	10	575	6,92	595	31,1	5,32	457	20,8	3,70	319	12,1	4,08	701	43,6	3,28	564	30,6
	7,5	480	5,98	514	24,4	4,60	396	16,5	3,22	277	9,9	3,52	606	33,9	2,84	488	24,0
	5	380	4,93	424	17,8	3,81	327	12,3	2,67	229	7,6	2,90	499	24,5	2,34	403	17,6
	3,5	320	4,27	367	14,2	3,30	283	9,9	2,32	199	6,4	2,51	431	19,3	2,03	348	14,0
	2	260	3,66	315	11,2	2,83	244	8,0	2,00	172	5,3	2,15	370	15,1	1,74	299	11,1
	1	220	3,43	295	10,2	2,66	229	7,4	1,88	161	5,0	2,02	347	13,7	1,63	281	10,1

WT: Water temperature
Vdc: Inverter power
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h): Dp Heating

WATER SIDE PRESSURE DROP
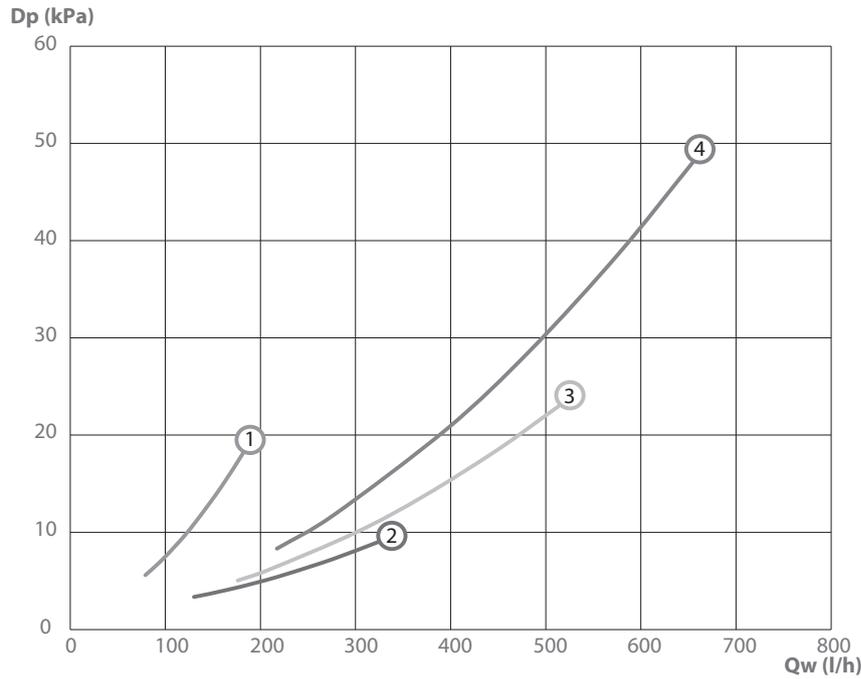
Dp = pressure drop
Qw = water flow rate
1 = CFF-ECM-OW 10
2 = CFF-ECM-OW 20
3 = CFF-ECM-OW 30
4 = CFF-ECM-OW 40

The water pressure drop figures refer to a mean water temperature of **10 °C** ; for different temperatures multiply the pressure drop figures by the correction factors **K** reported in the table below.

	Mean water temperature (°C)						
	20	30	40	50	60	70	80
K correction factor	0,94	0,90	0,86	0,82	0,78	0,74	0,70

OPERATION LIMITS

Description		UoM	Value
Water flow	Coil maximum working pressure	bars	16
		kPa	1600
	Lowest water inlet temperature	°C	6
	Highest water inlet temperature	°C	85
Power supply	Single-phase rated operating voltage	V/Hz	230/50

Coils water flow limits

2 row coil

Model		10	20	30	40
Water flow rate Min.	l/h	40	80		120
Water flow rate Max.	l/h	200	350	500	600

Max. absorption

Model		10	20	30	40
Motor absorption*	W	15,0	20,5	26,0	31,5
Motor current absorbed*	A	0,11	0,13	0,16	0,18
Condensate pump absorption	W	12,5			

* with boost operating mode

AIR THROW

The air throw indicated in the tables must only be considered the maximum value, as it may change significantly in relation to the dimensions of the room in which the appliance is installed and the positioning of the furniture in the room.

The useful throw L refers to the distance between the unit and the point where the air speed is 0.2 m/sec.

Note: on heating it must be payed attention to rooms where the floor temperature is particularly low (for example less than 5 °C). In this situation the floor can cool the lower layer of air to a level that stops the uniform diffusion of the hot air coming from the unit, decreasing the throw figures shown in the table.

With adjustable air diffusion louver at 45°
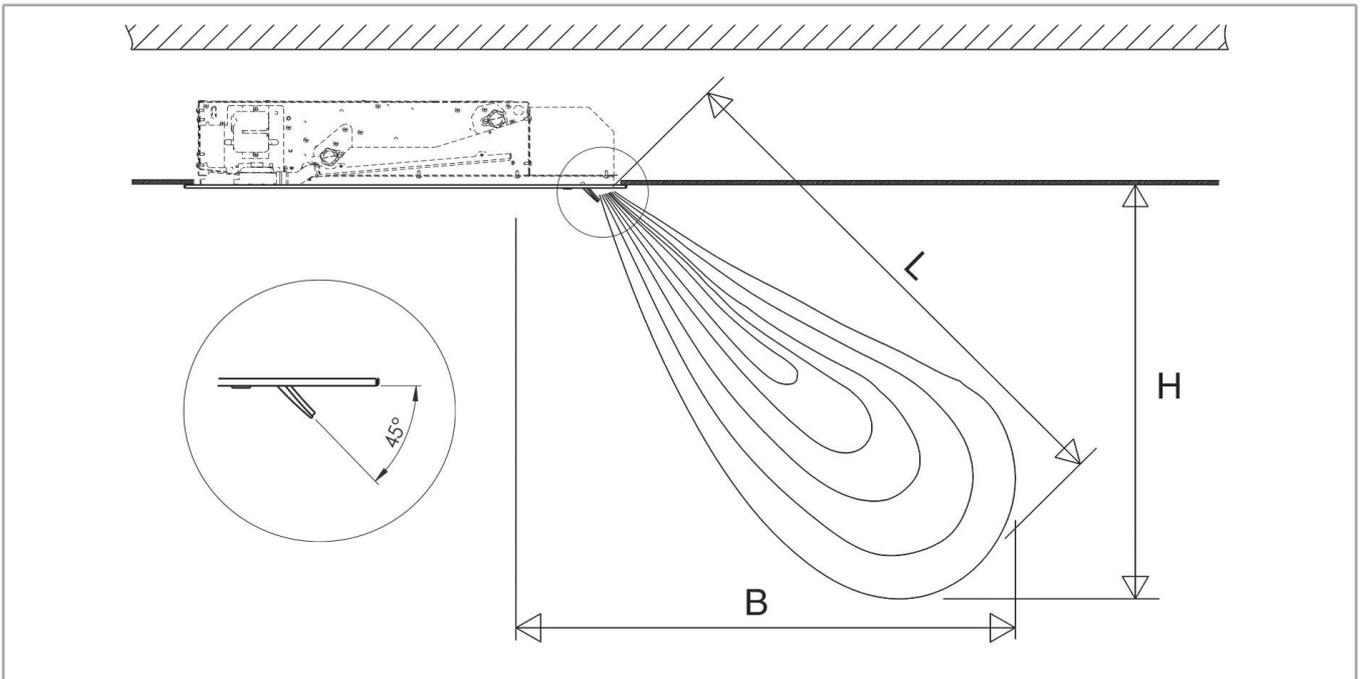
Model		10			20			30			40		
Vdc		2	5	10	2	5	10	2	5	10	2	5	10
L	m	3,3	4,2	4,8	3,2	4	4,4	3,3	4,2	4,8	3,3	4,2	4,8
H	m	2,2	2,8	3,2	2,1	2,7	2,9	2,2	2,8	3,2	2,2	2,8	3,2
B	m	2,4	3	3,5	2,3	2,9	3,2	2,4	3	3,5	2,4	3	3,5

DIMENSIONS

CFF-ECM-OW (internal unit + diffuser)

Internal CFF-ECM-OW unit

* = centre distance for the holes for hanging
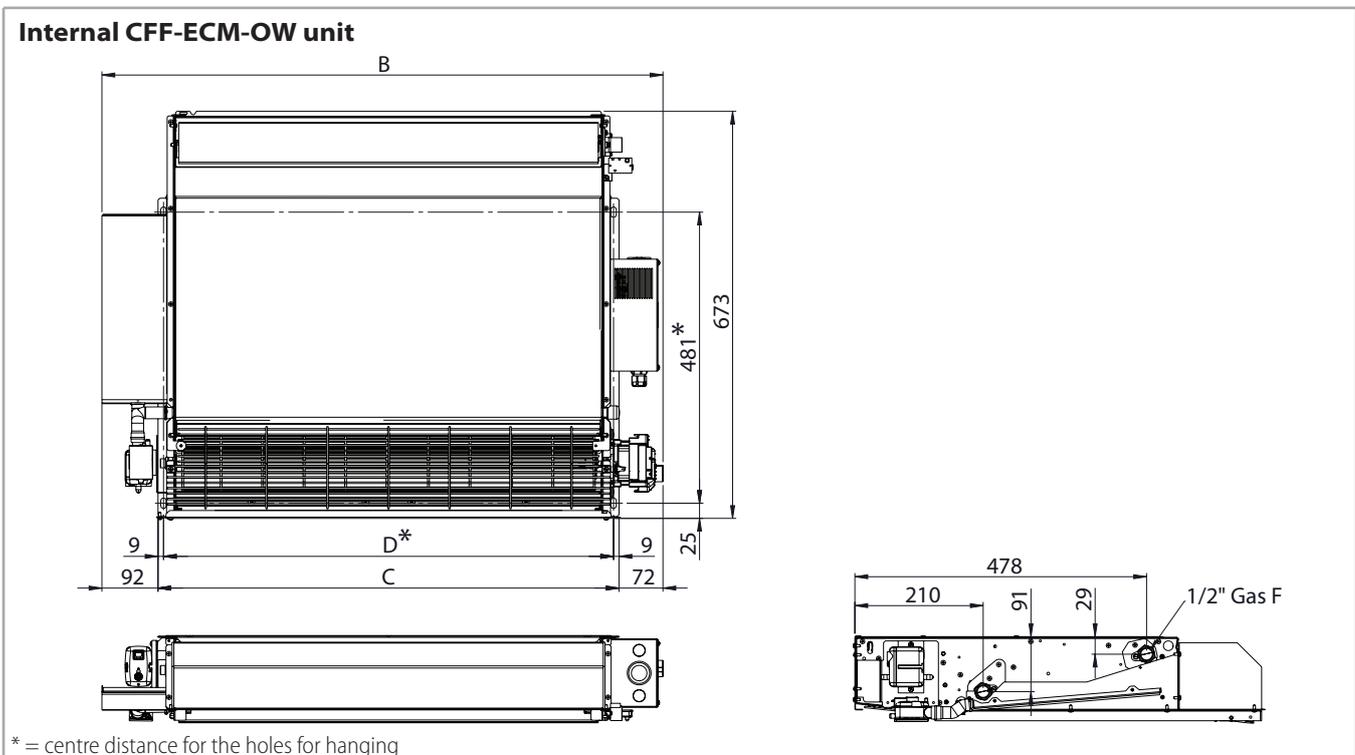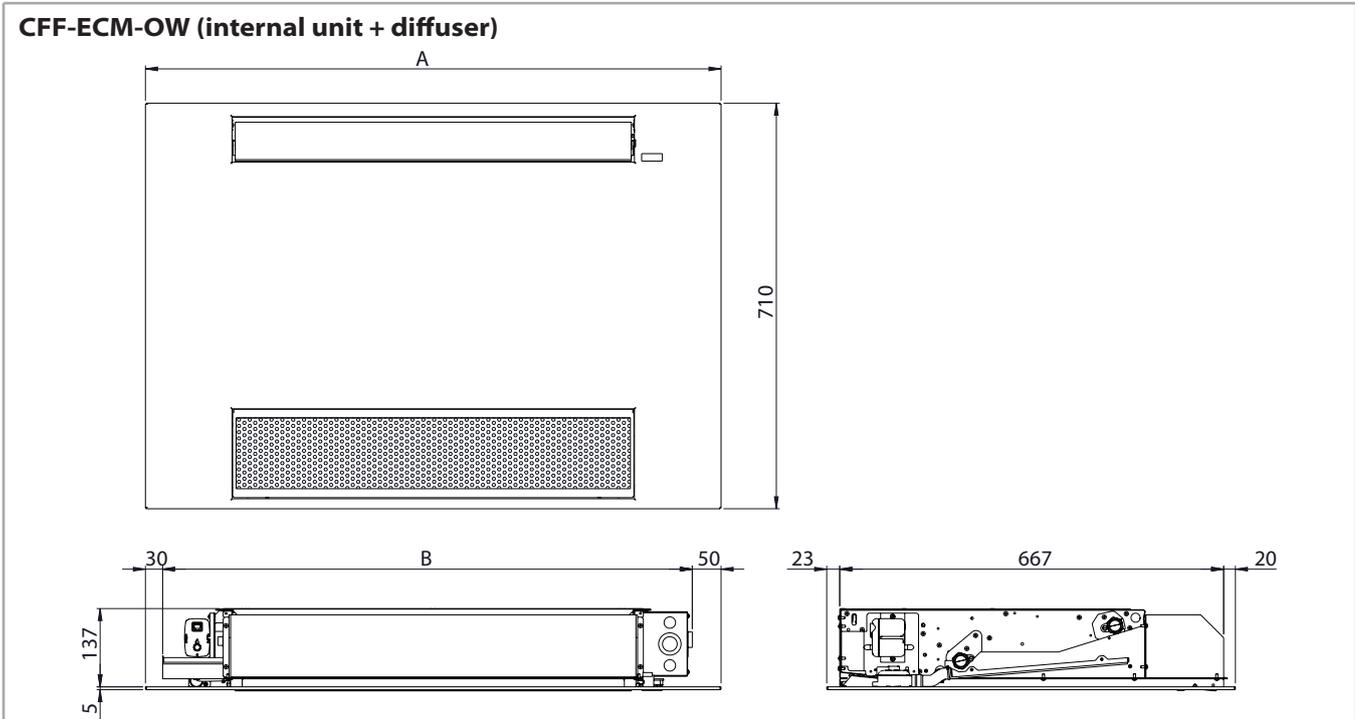
Model		10	20	30	40
A	mm	600	800	1000	1200
B	mm	520	720	920	1120
C	mm	356	556	756	956
D	mm	338	538	738	938
E	mm	570	770	970	1170

Coil connections

478
210
91
29
1/2" Gas F
OUT   IN

OUT   IN

⚠ **The connections are always on the left (as shown in the picture)**

Packed unit

Packed unit

175
730
Z
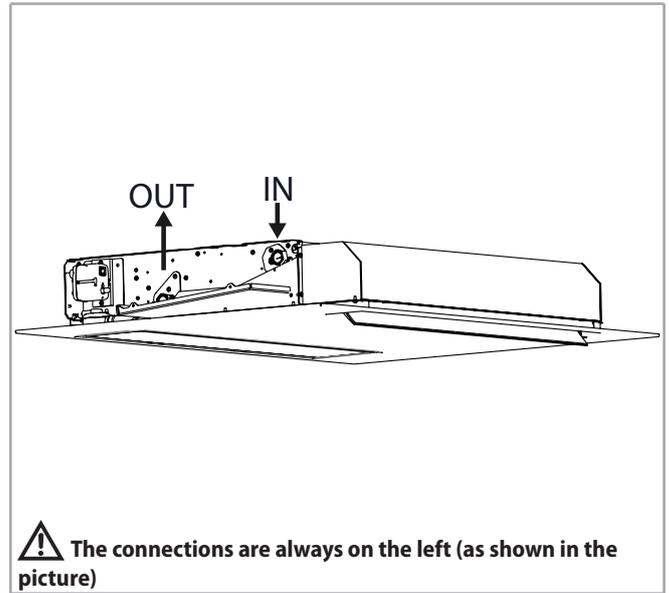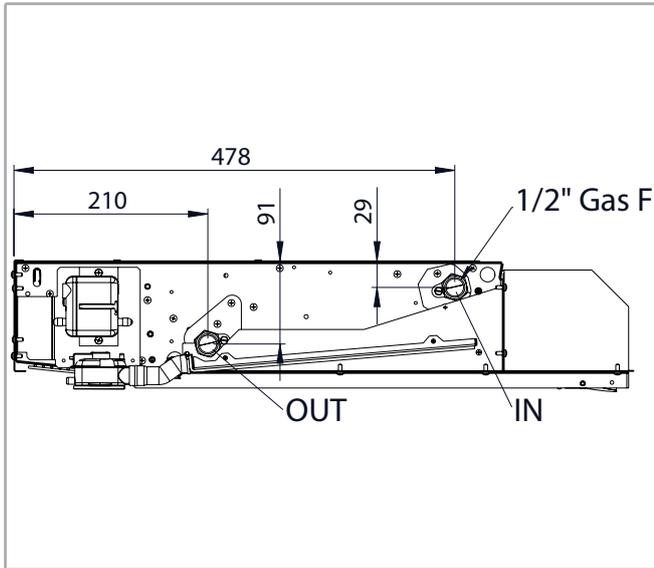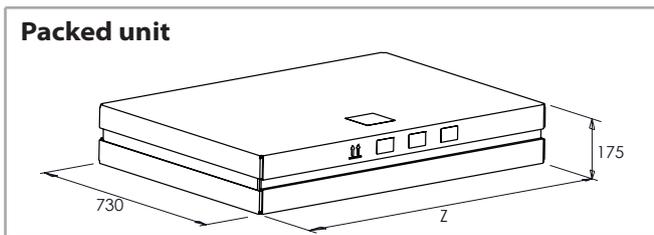
Model		10	20	30	40
Z	mm	625	825	1025	1225

Packed diffuser

70
780
Y
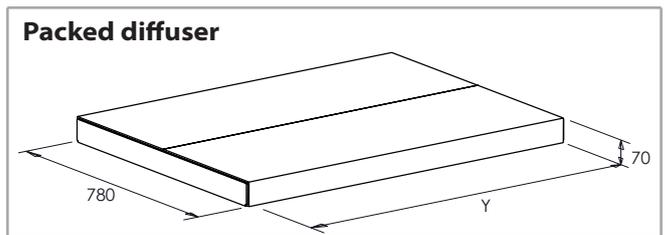
Model		10	20	30	40
Y	mm	670	870	1070	1270

Weight

The table of the weight is related to the standard versions with casing in the basic configuration without control and without valves; the weight can change for those units completed with control and/or valve.

CFF-ECM-OW unit

Model		10	20	30	40
Weight with packaging	kg	12,9	17,2	21,2	25,6
Weight without packaging	kg	11,3	15,2	18,9	23,1

Diffuser

Model		10	20	30	40
Weight with packaging	kg	4,6	6,1	7,5	8,8
Weight without packaging	kg	3,5	4,7	5,9	7,1

Water content

Model		10	20	30	40
Water content	l	0,4	0,7	1,1	1,4

VALVES

Available 2 and 3 way valve kits that can be supplied:
• not fitted for the installation on the construction site
• factory fitted.

The features and the installation dimensions of the valves are shown as follows and are valid either for the versions with fitted valves and for the versions with valves installed on the construction site.

2 way valve

2 way valve ON-OFF 230 V

Model	NOT FITTED		FITTED		Kvs	Dp max (1)	Valve connections (male)
	ID	Code	ID	Code	m³/h	kPa	Ø
10-20-30-40	V2-F	9071090W	V2-F0W-M	9071531W	1,7	50	1/2"

Side of the connections and upper view

2 way-valve pressure drop
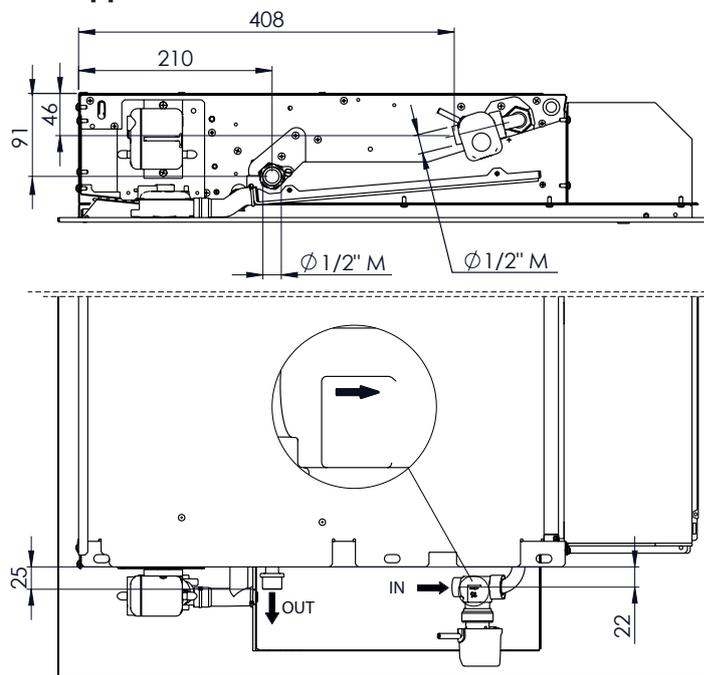
Dp = pressure drop
Qw = water flow rate
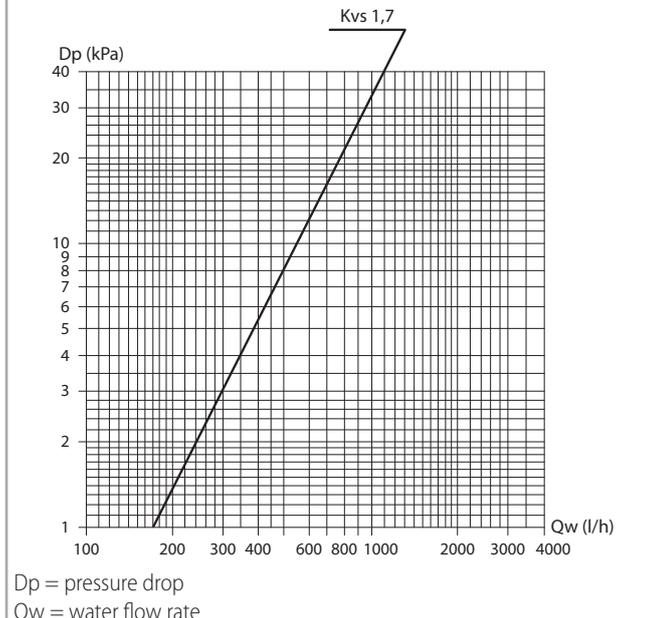
3 way valves

3 way water valve ON-OFF 230 V and mounting kit.

Model	NOT FITTED		FITTED		Kvs	Dp max (1)	Valve connections (male)
	ID	Code	ID	Code	m³/h	kPa	Ø
10-20-30-40	V3-FOW-S	9071532W	V3-FOW-M	9071533W	1,6	50	1/2"

Side of the connections and upper view

288   40   φ 1/2" M

28

71

OUT   IN

3-way-valve pressure drop

Dp (kPa)   Kvs 1,6

40
30
20
10
9
8
7
6
5
4
3
2
1

100   200   300 400   600 800 1000   2000 3000 4000   Qw (l/h)
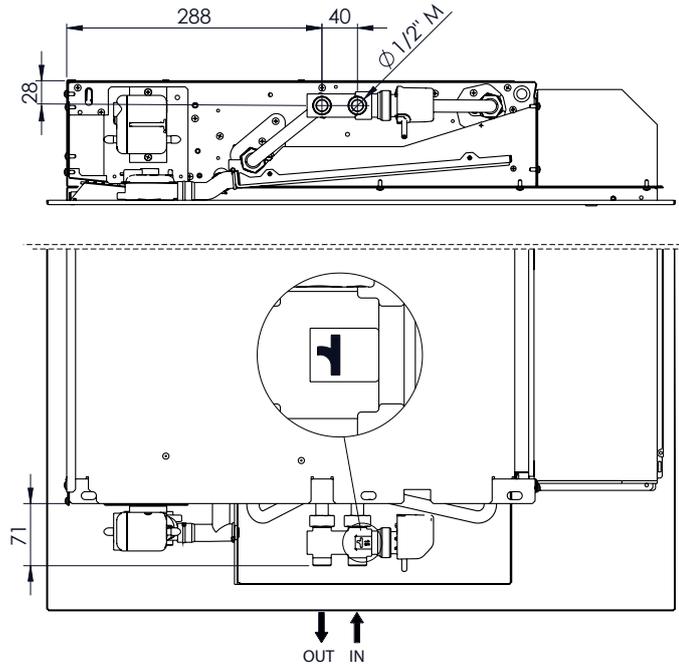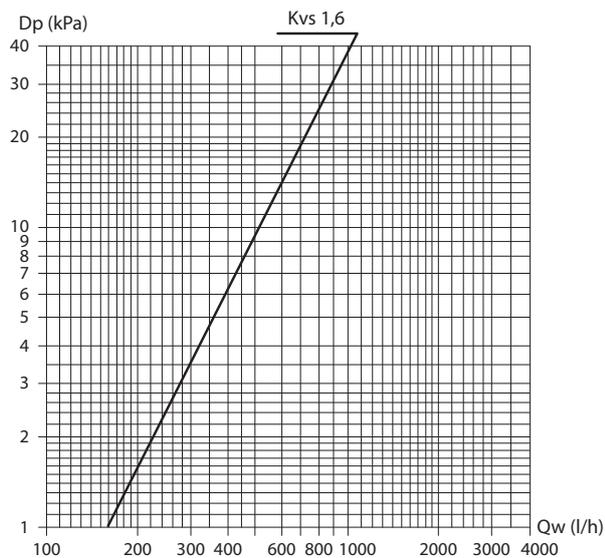
Dp = pressure drop
Qw = water flow rate

DIFFUSER AND ACCESSORIES

Air intake and distribution diffuser (mandatory)

Colour RAL 9003.
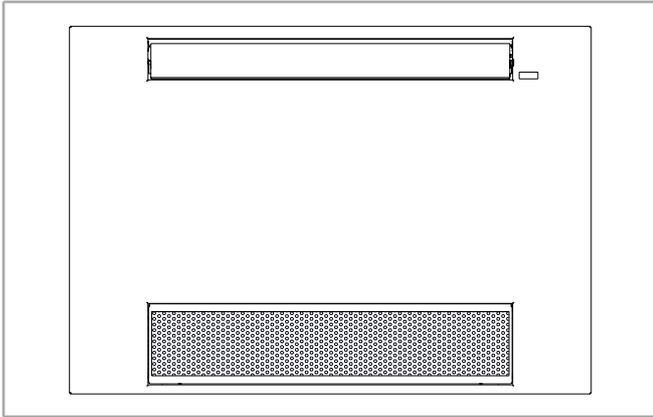
Model	ID	Code
10	PL-OW 10	9071601
20	PL-OW 20	9071602
30	PL-OW 30	9071603
40	PL-OW 40	9071604

FRC fresh air connection

Not fitted.
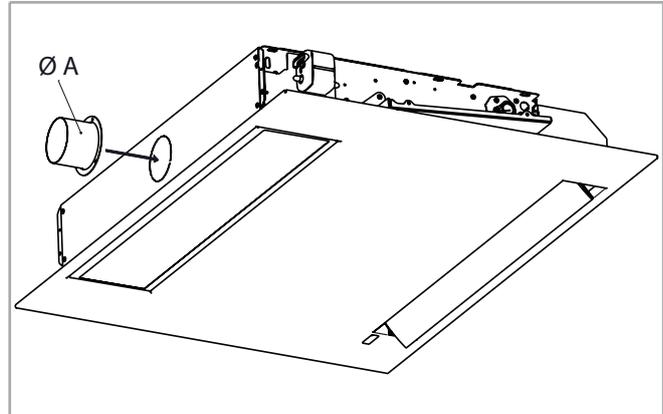
Model	ID	Code	A mm
All	FRC 80	6071455	78

CONTROLS AND UNITS MB VERSION

The **CFF-ECM-OW** version includes the infra-red remote control, that allows the management of one single unit; the **"High Wall Connectivity Kit"** (optional) Kit cod. 9025304 is available and consists of an electronic board for the ModBus communication, that allows the management of one single unit or one or more groups of units by using the Modbus RTU - RS 485 communication protocol and of an electronic board for the communication with the T-MB2 wall control.

The groups of units can be managed according to the Master/Slave logic (up to 20 units) or by supervisory components.
The following devices can be connected to this system:
- The **T-MB2** wall control for the management of the single units;
- the **PSM-DI** multifunctional panel, the **Sabianet** supervisory system, the **T-DI** Touch screen multifunctional control panel and the **SabWeb** Web Gateway for Sabiana Cloud, to manage one single unit or one or more groups of units.

Note: all the controls and their features are described in detail in the "Fan Coil Control Range Literature".

All the CFF-ECM-OW units offer moreover the possibility of management via **"Sabiana WiFi"** and **"Sabiana BLE"** APP. This makes this fan coil unit the ideal solution for the air-conditioning of all residential ambients.
Warning:
- for the pairing of the unit to the the APP it is necessary to use the **RS-F** receiver board, included fitted
- In case of connection of the **T-MB2** wall control (to a single unit or master/slave), the control via APP can occur only via Wi-Fi by pairing to **T-MB2**.

The electronic board fitted on the unit is equipped with a microprocessor with BLE / WiFi feature, that allows to control at distance or remotely all the units installed.

With the BLE / WiFi technology it is possible to manage all the fan coil operation modes.
It is moreover possible to manage each single unit or to create some groups; a weekly program can be created by setting, for each day of the week, until four different operation modes.

Note: the electronic board is fitted on the internal unit (that is installed within the false ceiling); carefully verify that the thickness and the material of the false ceiling do not shield the signal.

Sabiana WiFi

Sabiana WiFi is the App for the control at a distance of your Sabiana system of climatisation. Free and easy to use, it needs only a wireless network and a smartphone with internet connection. Using the "Cloud" it allows to manage, program and supervise the status of Your air conditioners wherever You are.

Sabiana BLE

Sabiana BLE is the new App for Android™ and iOS® systems to set, manage and control Your climatisation system via Bluetooth Low Energy (BLE)® transmission. Free and easy to configure and use, it needs only a smartphone with a Bluetooth® connection (version 4.0 or later versions).

Our **"Sabiana WiFi"** and **"Sabiana BLE"** APP are compatible with iOS® e Android™ systems.

APP image
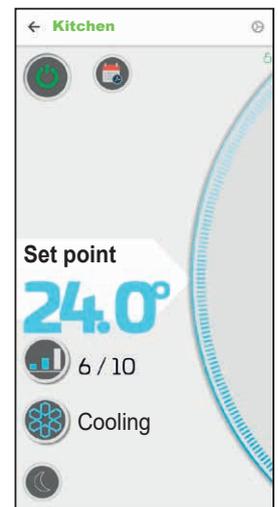
Warning: the device supports Wi-Fi networks (IEEE 802.11) of b, g and n type (Wi-Fi 4) on the 2.4 GHz frequency, according to the following security methods
- WEP
- WPA-PSK
- WPA2-PSK
- WPA2-enterprise
The device DOES NOT support Wi-Fi 6 networks on the 5 GHz frequency.

Controls

RT03 / RR03 remote control

Supplied included.

ID	
RT03 / RR03	Infra-red remote control RT03 / RR03

The infra-red remote control allows setting by a remote position the fan coil operation parameters.

The RT03 / RR03 remote control features the following functions:
- switch the unit ON and OFF
- temperature set
- set the fan speed (low, medium, high or auto fan)
- set the operation mode (fan only, cooling, heating)
- time setting
- 24 hours ON/OFF program
- Flap position configuration

Connectivity kit

Accessory.

Model	ID	Code
0 ÷ 4	KC-F	9025304

High Wall Connectivity Kit

A   B

A = T-MB2 connection board
B = ModBus connection board
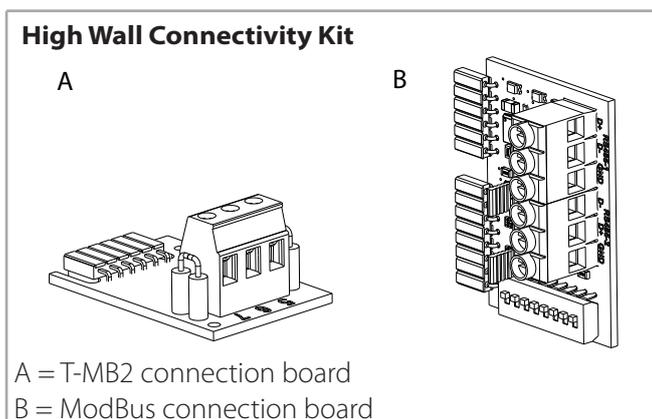
The kit consists of two auxiliary boards to mount on the power board fitted on the unit.
An electronic board allows to connect the **T-MB2** wall control and the other electronic board allows to connect the unit to a ModBus. network.

T-MB2 control

Accessory.

ID	Code
T-MB2	9066994E

Control with TFT 2,4" coloured graphic display for wall installation, equipped with WiFi module and BLE for the management of the connected unit via Sabiana APP.
The main characteristics are:
- Management by keyboard or via Sabiana APP WiFi
- Management of one single unit or of several units in Master/Slave mode
- ON/OFF switch
- Operation mode setting
- Setpoint configuration or setpoint variation by supervisory program (+/- 3°C of the set)
- Room temperature internal sensor, which can be defined as a priority compared to the return air sensor on the fan coil
- Fan speed switch
- Advanced daily/weekly ON/OFF programming with 3 pre-settable weekly programs
- Viewing and editing of the unit operating parameters, alarm diagnostics and information about the unit (the viewable parameters depend from the control board model to which the T-MB2 control is connected)
- Activation/deactivation of the room temperature display

The T-MB2 is used as an alternative to the infra-red remote control.

PSM-DI multifunction control panel

Accessory.

ID	Code	
PSM-DI	3021293	Multifunction control panel

With the PSM-DI multifunction control panel it is possible to manage up to 60 units that are equipped with **kit KC-F** or SIOS (max. 60 units: SIOS + kit KC-F).
The PSM-DI multifunction control panel supervises via Bus network all the connected units.
The remote connection (stand-alone) is not possible.

The PSM-DI panel cannot be used together with the management program Sabianet.

T-DI Touch screen multifunction control panel

ID	Code
T-DI	9066685

The T-DI multifunction control panel lets supervise and control more units with **kit KC-F** or SIOS; the panel is equipped with a 7 inches touch screen display and a serie of graphical pages that allows an easy reading of the data sent by the fan coils and the management of up to 60 units (max. 60 units: SIOS + kit KC-F).
With the multifunction control panel T-DI it is also possible to control the units from a distance with the specific Sabiana Cloud App for Android and iOS.
The Sabiana Cloud APP is simple to use and lets have complete control of all the connected units.

Web gateway for Sabiana Cloud

ID	Code
SabWeb	9066892

With the Web gateway for "Sabiana Cloud" it is possible to control remotely up to 60 units, equipped with **kit KC-F** or SIOS (max. 60 units: SIOS + kit KC-F) with the specific APP for Android and iOS.
The "Sabiana Cloud" APP is simple to use and lets have complete control of all the connected units.

Sabianet program for managing a network of Sabiana MB fan coils

Hardware/software supervisory system.

ID	Code
Sabianet	9079118

Sabianet is a centralised control system for networks of Sabiana MB fan coils, based on software that runs on LINUX™ operating system (the program is provided pre-installed on a PC) and it works in a "stand alone" way, as an ordinary computer, so that it can be connected to a monitor, to a mouse and to a keyboard.
By connecting an Ethernet cable is instead possible to work at a distance and visualize the entire program setting-up through whatever browsers.
The Sabianet software offers a practical and economical solution for managing the units, with the simple click of the mouse.

The main characteristics are:
- simplicity of use
- an extremely complete and functional weekly program
- possibility to access the historical operating data for each individual unit connected
- possibility of data saving on USB key
- visualization of the saved configuration on a new ASUS PC

The program takes advantage from all features of our units with fitted **KC-F kit** .

The program can be used to:
- create uniform groups (groups of units on individual floors, in offices or rooms)
- save weekly programs configured for different types of operation (summer, winter, mid seasons, closing periods etc.); these can then be recalled and activated with a simple click of the mouse. Weekly on/off cycles can be set for individual units or groups of units
- set the operating conditions for each individual unit or groups of units (operating mode, fan speed, temperature setting)
- set the set point limits for each individual unit or groups of units
- switch each individual unit or groups of units ON or OFF

With the Sabianet multifunction control panel it is also possible to control the units from a distance with the specific APP Sabiana Cloud for Android and iOS.
The Sabiana Cloud APP is simple to use and lets have complete control of all the connected units.

Router-S

ID	Code
Router-S	3021290

The Router-S is an electronic board that allows to control several units inside a network managed by Sabianet (default) or within a sub-network managed by BMS systems, that are not provided by Sabiana (it is necessary to operate on a Dip Switch on the board).

Managed by Sabianet

The Router-S in the standard version is an electronic board that:
• allows creating networks with more than 60 units (minimum 2 Router-S are required) or to divide the network (per floor, building, ecc.).
• allows creating a Master/Slave sub-network to be controlled as an indipendent group

The number of Router-S to be used is:
• up to 60 units: no Router-S
• from 61 to 120 units: 2 Router-S
• every 60 subsequent units: 1 additional Router-S

Managed by BMS Systems which are not provided by Sabiana

The Router-S becomes an electronic board to use with BMS systems (not by Sabiana), only after having set the Dip Switch on the board and so creating a Master/Slave sub-network to be controlled as an indipendent group.

The number of Router-S to be used is:
• max 14 Router-S
• maximum 15 Fan Coils per Router-S

SIOS board

ID	Code
SIOS	3021292

SIOS is a board equipped with 8 relays with potential free contact to control the activation or deactivation of remote electric utilities.
Moreover, the board has 8 digital inlets to display the actuators or external consents, such as motor or other.

The SIOS boards can be connected:
• inside a network managed by Sabianet
• inside a network managed by T-DI
• inside a network managed by SabWeb
• to a PSM-DI panel (one SIOS for each PSM-DI panel)

ICIM

CERTIFICATO N.
CERTIFICATE No.

ICIM-9001-000545-10

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

SABIANA S.P.A.

SEDE CENTRALE / *HEADQUARTER*

VIA PIAVE, 53 20011 CORBETTA MI IT - Italia

PER LE UNITÀ OPERATIVE VEDERE L'ALLEGATO
FOR OPERATIVE UNITS SEE ATTACHMENT

È CONFORME ALLA NORMA / *IS IN COMPLIANCE WITH THE STANDARD*

UNI EN ISO 9001:2015

Sistema di Gestione per la Qualità / *Quality Management System*

PER LE SEGUENTI ATTIVITÀ / *FOR THE FOLLOWING ACTIVITIES*

EA: 18

Progettazione, produzione e assistenza di apparecchiature per il riscaldamento e il condizionamento dell'aria (aerotermi, termostrisce radianti, ventilconvettori e unità trattamento aria). Progettazione e produzione di canne fumarie.

Design, production and service of heating and air conditioning equipment (unit heaters, radiant panels, fan coil units and air handling units). Design and production of chimneys.

Riferirsi alla documentazione del Sistema di Gestione per la Qualità aziendale per l'applicabilità dei requisiti della norma di riferimento.
Refer to the documentation of the Quality Management System for details of application to reference standard requirements.

Il presente certificato è soggetto al rispetto del documento ICIM "Regolamento per la certificazione dei sistemi di gestione" e al relativo Schema specifico.
The use and the validity of this certificate shall satisfy the requirements of the ICIM document "Rules for the certification of company management systems" and specific Scheme.

Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato della certificazione di cui al presente certificato,
si prega di contattare il n° telefonico +39 02 725341 o indirizzo e-mail info@icim.it.
For timely and updated information about any changes in the certification status referred to in this certificate,
please contact the number +39 02 725341 or email address info@icim.it.

DATA EMISSIONE	EMISSIONE CORRENTE	DATA DI SCADENZA
FIRST ISSUE	*CURRENT ISSUE*	*EXPIRING DATE*
10/06/1996	10/04/2024	09/04/2027

Vincenzo Delacqua
Rappresentante Direzione / *Management Representative*
ICIM S.p.A.
Piazza Don Enrico Mapelli, 75 – 20099 Sesto San Giovanni (MI)
www.icim.it

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

MS N° 0004

0449CM_05_IT

CISQ
www.cisq.com
CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale. CISQ is the Italian Federation of management system Certification Bodies.

IQNET

Building trust together.

Certificate

CISQ/ICIM S.P.A. has issued an IQNET recognized certificate that the organization:

SABIANA S.P.A.
VIA PIAVE, 53 20011 CORBETTA MI IT - Italia
For Operative Units see Annex/Annexes

has implemented and maintains a/an

Quality Management System

for the following scope:

Design, production and service of heating and air conditioning equipment (unit heaters, radiant panels, fan coil units and air handling units). Design and production of chimneys.

which fulfils the requirements of the following standard:

ISO 9001:2015

Issued on:	**2024-04-10**
First issued on:	**1996-06-10**
Expires on:	**2027-04-09**

Registration Number:
IT-4000   ICIM-9001-000545-10

Alex Stoichitoiu
President of IQNET

Mario Romersi
President of CISQ

CISQ

This attestation is directly linked to the IQNET Member's original certificate and shall not be used as a stand-alone document.

IQNET Members*:
AENOR Spain **AFNOR Certification** France **APCER** Portugal **CCC** Cyprus **CISQ** Italy **CQC** China **CQM** China **CQS** Czech Republic **Cro Cert** Croatia **DQS Holding GmbH** Germany **EAGLE Certification Group** USA **FCAV** Brazil **FONDONORMA** Venezuela **ICONTEC** Colombia **ICS** Bosnia and Herzegovina **INTECO** Costa Rica **IRAM** Argentina **JQA** Japan **KFQ** Korea **LSQA** Uruguay **MIRTEC** Greece **MSZT** Hungary **Nemko AS** Norway **NSAI** Ireland **NYCE-SIGE** México **PCBC** Poland **Quality Austria** Austria **SII** Israel **SIQ** Slovenia **SIRIM QAS International** Malaysia **SQS** Switzerland **SRAC** Romania **TSE** Turkey **YUQS** Serbia

* The list of IQNET Members is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com

0774CM_05_EN

Follow us on
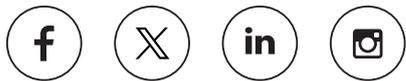
Sabiana app
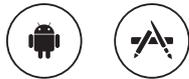
SABIANA brand of
ARBONIA
climate

SABIANA SpA
Società a socio unico
via Piave 53 - 20011 Corbetta (MI) Italy
T. +39 02 97203 1 r.a. - F. +39 02 9777282
info@sabiana.it
www.sabiana.it

Management and Direction ARBONIA AG

Sabiana 2 and Sabiana 3 - Operative unit "via Virgilio 2 - Magenta (MI)"
Sabiana 4 - Operative unit "via Zanella 27 - Corbetta (MI)"