Carisma

Fan Coil Units

THE ULTRA QUIET FAN COIL

Carisma is the result of a great commitment of energy and resources, with the aim of offering an innovative product in terms of design, performance, low noise, energy saving and functionality.

Upon request, **innovative electronic motors** with extremely low energy consumption, controlled by an inverter board and identified by ECM, are available with centrifugal and tangential fan. The ECM motors allow to decrease electric consumption by more than 50% compared to traditional asynchronous motors. They enable to control the air flow continuously and the ambient temperature with precision, with further benefits in terms of very low noise levels thanks to the reduced average working speed.

The 4 models (for wall and ceiling installation, with casing and concealed) and the different available coils (with three or four rows for two pipe systems, one or two rows for four pipe systems) offer great installation flexibility and allow the use of low temperature hot water, in line with the development of modern boilers and heat pumps.

As a special option, the Carisma range can be fitted with a patented electronic filter featuring a class D rating according to Standard UNI 11254, with similar performances to the initial ones of a traditional mechanical filter featuring a class F9 rating according to Standard UNI EN 779.

A full range of adjustment and control devices is available including the innovative patented wire-less system, for rapidly obtaining correct environmental temperature and with an investment proportional to performances, comfort and desired measurement precision.

The Carisma model is complemented with a full range of accessories: various types of adjustment valves, sturdy support feet, rear covering panel for glass installation, additional electric heater, auxiliary condensate pump, fresh air intake louver, air inlet/outlet diffusers for fitted installations.

Electric and electronic controls:
All the controls to be fitted on the unit of the new range have been totally re-designed and feature a modern and attractive design. An innovative patented wireless control system called ***FreeSabiana*** allows adjusting the room temperature with high precision and high installation flexibility.

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Eurovent Certification

Sabiana obtained the Eurovent certification in 1996. Eurovent is an independent body recognized in all Europe that ensures total reliability and transparency of performances.

- *9 sizes: from 220 to 1500 m³/h*
- *1 battery: 3 or 4 rows*
- *2 batteries: 3 or 4 rows (cooling) and 1 or 2 rows (heating)*
- *5 versions: MV, MO-MVB, IV-IO*

Fan Coil Units with centrifugal fan Carisma CRC

The ultra quiet fan coil

The CRC range is offered with standard 6 speed motors, 3 of which connected and one static, useful up to 50 Pa. It is the ideal choice for all those applications where wanting to optimise price/performance ratio, though guaranteeing excellent acoustic result, contained electric consumption and a design suitable for every modern architectural solution.

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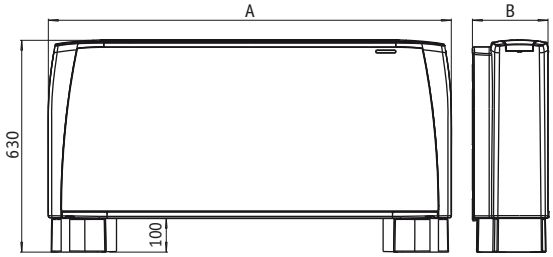
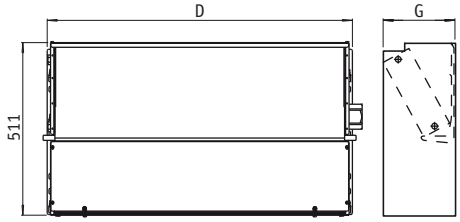
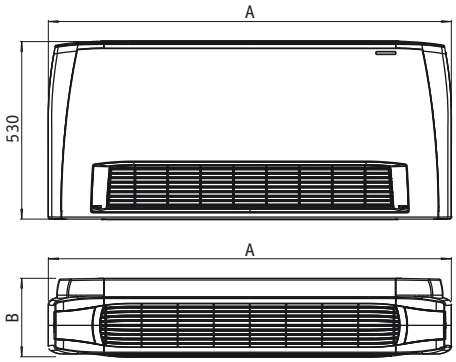
MV Model



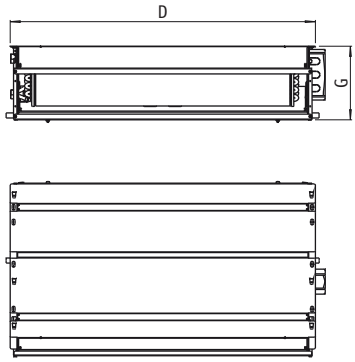
IV-IO Model *Vertical installation*



MO-MVB Model



IV-IO Model *Horizontal installation*



MV - MO - MVB		
Size	A	B
1	670	225
2	770	225
3	985	225
4	985	225
5	1200	225
6	1200	225
7	1415	225
8	1415	255
9	1415	255

IV - IO		
Size	G	D
1	218	374
2	218	474
3	218	689
4	218	689
5	218	904
6	218	904
7	218	1119
8	248	1119
9	248	1119

CarismaSabiana CRC. 2 pipes unit. The following standard rating conditions are used:

COOLING (summer mode) Entering air temperature + 27°C d.b., + 19°C w.b. Water temperature + 7/12°C

HEATING (winter mode) Entering air temperature + 20°C Entering water temperature + 50°C Water flow rate as for the cooling conditions

Figures at high speed

CRC MODEL		CRC 13	CRC 23	CRC 33	CRC 43	CRC 53	CRC 63	CRC 73	CRC 83	CRC 93	CRC 14	CRC 24	CRC 34	CRC 44	CRC 54	CRC 64	CRC 74	CRC 84	CRC 94
Air flow	m³/h	220	295	385	485	650	760	925	1200	1500	220	295	385	485	650	760	925	1200	1500
Cooling total emission	kW	1.03	1.56	2.39	2.87	3.64	4.09	5.11	5.82	6.74	1.23	1.81	2.57	3.12	4.09	4.79	5.58	6.47	7.60
Cooling sensible emission	kW	0.86	1.24	1.80	2.19	2.82	3.20	3.95	4.68	5.55	0.97	1.38	1.90	2.34	3.07	3.60	4.23	5.06	6.05
Heating	kW	1.39	2.02	2.92	3.56	4.50	5.09	6.27	7.66	9.06	1.55	2.20	3.07	3.76	4.83	5.88	6.71	8.43	10.08
Δp Cooling	kPa	2.3	6.5	19.7	27.2	16.2	19.8	34.2	19.0	24.6	5.6	13.9	11.5	15.5	31.3	36.2	27.7	17.5	23.2
Δp Heating	kPa	2.0	5.5	16.7	23.1	13.8	16.8	29.1	16.2	20.9	4.7	11.6	9.2	12.2	25.7	29.3	23.7	14.5	19.3
Fan	W	33	32	41	44	61	78	103	130	176	33	32	42	44	61	78	103	130	176
Sound power Lw (Medium speed)	dB(A)	39	40	40	39	41	46	51	56	58	39	40	40	39	41	46	51	56	58
Sound pressure Lp (High speed)	dB(A)*	36	38	40	38	39	43	47	51	55	36	38	40	38	39	43	47	51	55
Sound pressure Lp (Medium speed)	dB(A)*	30	31	31	30	32	37	42	47	49	30	31	31	30	32	37	42	47	49
Sound pressure Lp (Low speed)	dB(A)*	23	21	27	24	22	28	33	36	41	23	21	27	24	22	28	33	36	41

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

Carisma CRT — Fan Coil Units with tangential fan

- *6 sizes: from 90 to 945 m³/h*
- *1 battery: 3 rows*
- *2 batteries: 3 rows (cooling) and 1 row (heating)*
- *5 versions: MV, MO-MVB, IV-IO*

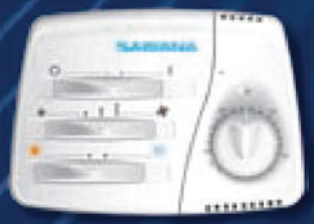
Low energy consumption tangential fan

The CRT range uses a 6 speed ventilating unit with extremely reduced electric consumptions. The large tangential fan (120 mm) supplies a consistent air flow with sound pressure values at medium speed which are below 35 dB(A)* and at minimum speed below 28 dB(A)* on all models.

Long laboratory tests have enabled obtaining a very stable and regular functioning in time, also in critical conditions, like in situations where the filter and the battery have not been regularly cleaned.

The motor, with newly conceived bearings, is guaranteed for double the number of hours compared to the previous range and stays at a particularly low functioning temperature, even after many days of continuous functioning.

It is the ideal choice for all large installations with maximum attention to consumptions and environmental sound levels.



CarismaSabiana CRT. 2 pipes unit. The following standard rating conditions are used:

COOLING	Entering air temperature	+ 27°C d.b.,	+ 19°C w.b.	**HEATING**	Entering air temperature	+ 20°C
(summer mode)	Water temperature	+ 7/12°C		(winter mode)	Entering water temperature	+ 50°C
					Water flow rate as for the cooling conditions	

Figures at high speed

CRT MODEL		CRT 13	CRT 23	CRT 33	CRT 53	CRT 63	CRT 73
Air flow	m³/h	200	250	370	495	635	780
Cooling total emission	kW	0.87	1.24	2.04	2.76	3.33	4.18
Cooling sensible emission	kW	0.74	0.99	1.56	2.12	2.61	3.23
Heating	kW	1.24	1.66	2.55	3.47	4.26	5.27
Δp Cooling	kPa	1.8	4.1	15.2	9.9	13.8	25.1
Δp Heating	kPa	1.5	3.3	12.5	8.1	11.4	19.8
Fan	W	17	19	23	33	44	53
Sound power Lw (Medium speed)	dB(A)	36	35	36	39	43	43
Sound pressure Lp (High speed)	dB(A)*	35	34	35	34	41	41
Sound pressure Lp (Medium speed)	dB(A)*	27	26	27	28	34	34
Sound pressure Lp (Low speed)	dB(A)*	22	22	22	22	27	27

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

Carisma CRR — Fan Coil Units with tangential fan

- *4 sizes: from 110 to 500 m³/h*
- *1 battery: 2 rows*
- *1 version: MV*

High comfort for small environments

The series CRR is designed to be equipped with a tangential fan and the units are of smaller dimensions for smaller environments (depth 18 cm). Carisma is the ideal equipment for offices and houses, is no longer a simple technical product but also a furnishing element that can give added value to the aesthetics of the surrondigs.

CarismaSabiana CRR. 2 pipes unit. The following standard rating conditions are used:

COOLING	Entering air temperature	+ 27°C d.b.,	+ 19°C w.b.	**HEATING**	Entering air temperature	+ 20°C
(summer mode)	Water temperature	+ 7/12°C		(winter mode)	Entering water temperature	+ 50°C
					Water flow rate as for the cooling conditions	

Figures at high speed

CRR MODEL		CRR 1	CRR 2	CRR 3	CRR 4
Air flow	m³/h	180	250	360	500
Cooling total emission	kW	0.80	1.30	1.90	2.80
Cooling sensible emission	kW	0.70	1.01	1.53	2.05
Heating	kW	1.20	1.60	2.60	3.60
Δp Cooling	kPa	11.0	20.0	7.8	20.0
Δp Heating	kPa	7.0	16.5	7.0	18.8
Fan	W	28	27	31	36
Sound power Lw (Medium speed)	dB(A)	37	39	39	40
Sound pressure Lp (High speed)	dB(A)*	33	36	36	37
Sound pressure Lp (Medium speed)	dB(A)*	28	30	30	31
Sound pressure Lp (Low speed)	dB(A)*	25	25	25	25

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

MOD.	CRR 1	CRR 2	CRR 3	CRR 4
L	670	770	985	1200