



# Carisma CRC and CRC-ECM

Fan Coil Unit with Centrifugal Fan

TECHNICAL LEAFLET

# Carisma CRC

Fan Coil Unit with Centrifugal Fan with Asynchronous Motor



Range includes **9 air flow rates** (from 105 to 1500 m<sup>3</sup>/h) and **5 models** (for wall and ceiling installation, with casing and concealed), each equipped with 3 or 4 row coil and with the possibility to add a 1 or 2 row coil for 4 pipe systems.

It is the most comprehensive range, perfectly suited to meet all of the climate control needs of work environments such as offices, shops, restaurants and hotel rooms featuring ducted installations with available pressure **up to 50 Pa**.



**Outer casing:** made with strong synthetic lateral corners and from galvanized and prepainted front steel panel. The plastic top grid has fixed louvres and is reversible in order to distribute the air in two different directions.

**Standard colours:**

- Lateral corners and top grid: **Pantone Cool Grey 1C (light grey)**
- Front panel: **RAL 9003 (white)**
- Other colours on request.

**Inner casing:** made from 1 mm galvanized steel insulated with 3 mm polyolefin (PO) foam (B-s2-d0 EN 13501-1).

**Filter:** polypropylene cellular fabric regenerating filter. The filter frame of galvanized steel is inserted into special plastic sliding guides fastened to the internal structure for easy insertion and removal of the filter. Filter presence is highlighted by a plastic front cover featuring the same colour as the top grid.

**Fan assembly:** the fans have aluminium or plastic blades directly keyed on the motor with double aspiration and they are dynamically and statically balanced during manufacture in order to have an extremely quiet operation.

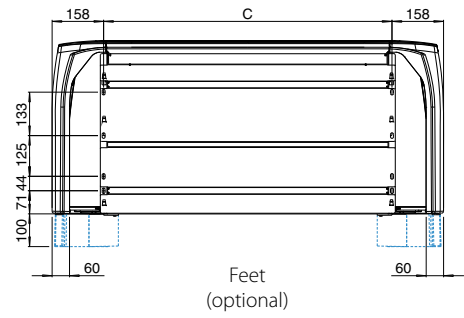
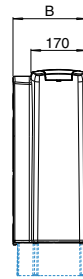
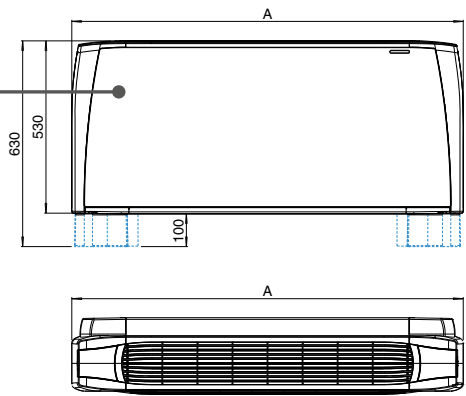
**Electric motor:** the motor is wired for single phase and has six speeds, three of which are connected, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings. Internal thermal protection with automatic reset, protection IP 20, class B.

**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 1/2 inch BSP internal connections and 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.

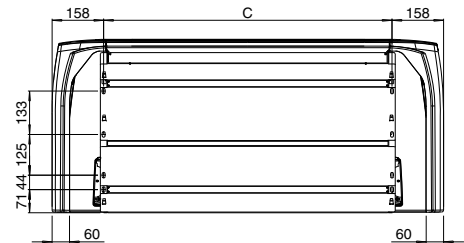
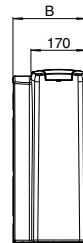
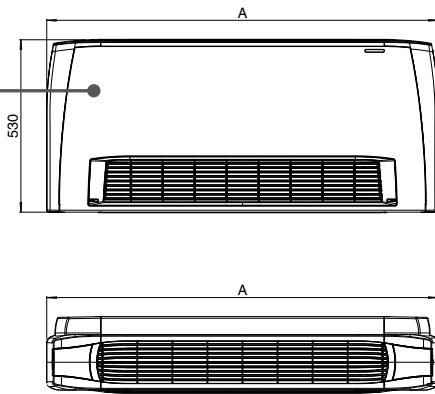
**Flow and return pipe connections are situated at the same end on the left side looking at the unit. On request we can deliver the unit with the connections on the right end side. This operation can also be easily carried out on site during installation.**

**Condensate collection tray:** made from plastic with an "L"-shaped plastic fitted on the inner casing; in the MO-MVB and IV-IO model the tray is insulated with 3 mm polyolefin (PO) foam (B-s2-d0 EN 13501-1). The outside diameter of the condensate discharge pipe is 15 mm.

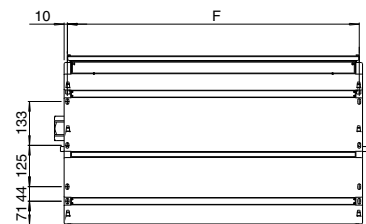
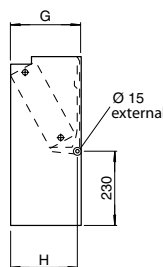
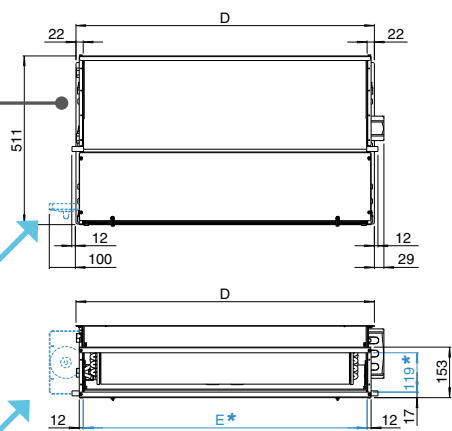
## MV model



## MO-MVB model



## IV-IO model

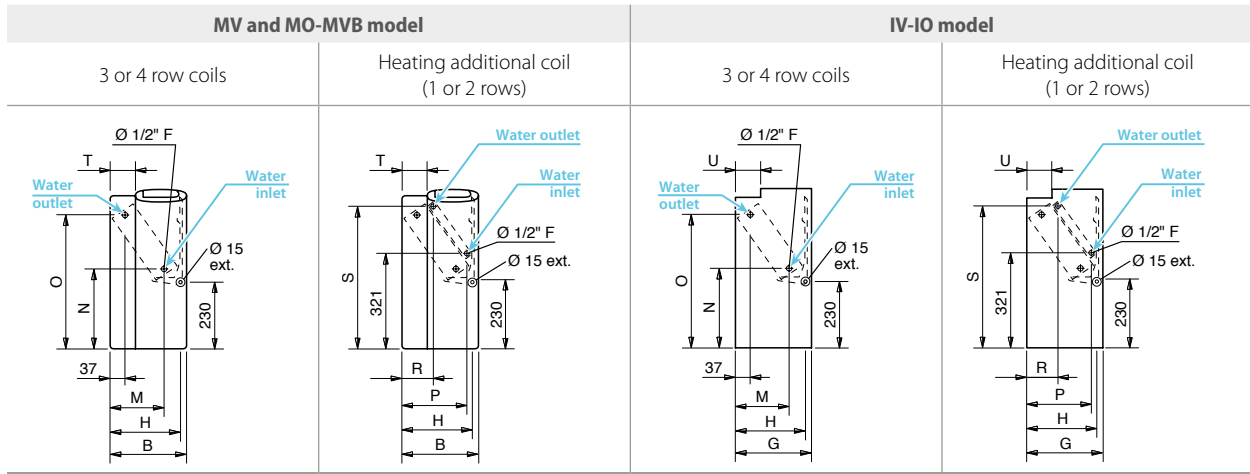


Auxiliary condensate tray (optional)

Coil connections on the left

\* Supply frame dimension = E x 119 mm

### Coil connections



### Dimension (mm)

Model	1	2	3	4	5	6	7	8	9
A	670	770	985	985	1200	1200	1415	1415	1415
B	225	225	225	225	225	225	225	255	255
C	354	454	669	669	884	884	1099	1099	1099
D	374	474	689	689	904	904	1119	1119	1119
E	330	430	645	645	860	860	1075	1075	1075
F	354	454	669	669	884	884	1099	1099	1099
G	218	218	218	218	218	218	218	248	248
H	205	205	205	205	205	205	205	235	235
M	145	145	145	145	145	145	145	170	170
N	260	260	260	260	260	260	260	270	270
O	460	460	460	460	460	460	460	450	450
P	185	185	185	185	185	185	185	210	210
R	105	105	105	105	105	105	105	110	110
S	475	475	475	475	475	475	475	465	465
T	55	55	55	55	55	55	55	85	85
U	65	65	65	65	65	65	65	95	95

### Weight (kg)

	Model	Weight with packaging									Weight without packaging									
		1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	
MV MO-MVB	ROWS	3	15,5	17,2	21,4	22,5	26,9	27,7	32,1	35,7	35,9	13,9	15,4	19,1	20,2	24,1	24,9	28,8	32,0	32,2
		3+1	16,2	18,0	22,6	23,7	28,4	29,2	33,9	37,5	37,7	14,6	16,2	20,3	21,4	25,6	26,4	30,6	33,8	34,0
		3+2	16,7	18,6	23,3	24,4	29,3	30,1	35,0	38,6	38,8	15,1	16,8	21,0	22,1	26,5	27,3	31,7	34,9	35,1
		4	16,0	18,0	22,4	23,5	28,1	29,0	33,6	37,2	37,4	14,4	16,2	20,1	21,2	25,3	26,2	30,3	33,5	33,7
		4+1	16,7	18,8	23,6	24,7	29,6	30,5	35,4	39,0	39,2	15,1	17,0	21,3	22,4	26,8	27,7	32,1	35,3	35,5
IV-IO	ROWS	3	12,2	13,6	17,1	18,1	21,9	22,8	27,0	30,2	30,4	10,6	11,8	15,3	16,3	19,6	20,5	24,2	27,1	27,3
		3+1	12,9	14,4	18,3	19,3	23,4	24,3	28,8	32,0	32,2	11,3	12,6	16,5	17,5	21,1	22,0	26,0	28,9	29,1
		3+2	13,4	15,0	19,0	20,0	24,3	25,2	29,9	33,1	33,3	11,8	13,2	17,2	18,2	22,0	22,9	27,1	30,0	30,2
		4	12,7	14,4	18,1	19,1	23,1	24,1	28,5	31,7	31,9	11,1	12,6	16,3	17,3	20,8	21,8	25,7	28,6	28,8
		4+1	13,4	15,2	19,3	20,3	24,6	25,6	30,3	33,5	33,7	11,8	13,4	17,5	18,5	22,3	23,3	27,5	30,4	30,6

### Water content (litres)

Model	1	2	3	4	5	6	7	8	9
ROWS	3	0,5	0,6	0,9	0,9	1,3	1,6	1,9	1,9
	4	0,7	0,8	1,3	1,3	1,7	2,2	2,8	2,8
	+1	0,2	0,2	0,3	0,3	0,4	0,5	0,6	0,6
	+2	0,4	0,4	0,6	0,6	0,8	1,0	1,0	1,2

## Units with 3 row coil

**2 pipe units.** The following standard rating conditions are used:

**COOLING (summer mode)**

**Entering air temperature:** +27 °C d.b. +19 °C w.b.

**Water temperature:** +7 °C E.W.T +12 °C L.W.T

**HEATING (winter mode)**

**Entering air temperature:** +20 °C

**Water temperature:** +45 °C E.W.T. +40 °C L.W.T.

Model		CRC 13						CRC 23						CRC 33						
		1 (E)	2	3	4 (E)	5	6 (E)	1 (E)	2	3 (E)	4	5 (E)	6	1	2 (E)	3 (E)	4	5 (E)	6	
		MIN			MED		MAX	MIN		MED		MAX		MIN	MED		MAX		MAX	
Speed																				
Air flow	m <sup>3</sup> /h	<b>105</b>	125	150	<b>175</b>	195	<b>220</b>	<b>145</b>	170	<b>220</b>	250	<b>295</b>	340	185	<b>235</b>	<b>270</b>	325	<b>385</b>	440	
Cooling total emission (E)	kW	<b>0,57</b>	0,66	0,75	<b>0,84</b>	0,91	<b>1,00</b>	<b>0,90</b>	0,99	<b>1,23</b>	1,35	<b>1,53</b>	1,70	1,27	<b>1,55</b>	<b>1,76</b>	2,04	<b>2,35</b>	2,61	
Cooling sensible emission (E)	kW	<b>0,45</b>	0,53	0,60	<b>0,69</b>	0,75	<b>0,83</b>	<b>0,68</b>	0,76	<b>0,95</b>	1,06	<b>1,21</b>	1,36	0,92	<b>1,13</b>	<b>1,30</b>	1,51	<b>1,76</b>	1,97	
Heating (E)	kW	<b>0,64</b>	0,76	0,86	<b>0,98</b>	1,07	<b>1,19</b>	<b>0,94</b>	1,06	<b>1,34</b>	1,49	<b>1,70</b>	1,92	1,26	<b>1,56</b>	<b>1,79</b>	2,10	<b>2,44</b>	2,74	
Heating - Water 70-60 °C	kW	<b>1,31</b>	1,53	1,75	<b>1,99</b>	2,18	<b>2,42</b>	<b>1,90</b>	2,14	<b>2,70</b>	3,00	<b>3,44</b>	3,89	2,54	<b>3,14</b>	<b>3,61</b>	4,24	<b>4,92</b>	5,52	
Dp Cooling (E)	kPa	<b>2,5</b>	3,0	3,8	<b>4,7</b>	5,4	<b>6,3</b>	<b>2,5</b>	3,0	<b>4,4</b>	5,3	<b>6,5</b>	7,9	6,6	<b>9,4</b>	<b>11,8</b>	15,3	<b>19,7</b>	23,8	
Dp Heating (E)	kPa	<b>0,9</b>	1,1	1,4	<b>1,8</b>	2,1	<b>2,5</b>	<b>2,2</b>	2,8	<b>4,2</b>	5,0	<b>6,4</b>	7,9	5,4	<b>7,8</b>	<b>10,0</b>	13,2	<b>17,1</b>	21,0	
Fan (E)	W	<b>16</b>	19	21	<b>25</b>	29	<b>33</b>	<b>14</b>	16	<b>22</b>	26	<b>32</b>	40	15	<b>20</b>	<b>25</b>	32	<b>41</b>	49	
Sound power (E)	dB(A)	<b>32</b>	34	36	<b>39</b>	42	<b>45</b>	<b>30</b>	33	<b>40</b>	43	<b>47</b>	51	31	<b>36</b>	<b>40</b>	45	<b>49</b>	52	
Sound pressure (*)	dB(A)	<b>23</b>	25	27	<b>30</b>	33	<b>36</b>	<b>21</b>	24	<b>31</b>	34	<b>38</b>	42	22	<b>27</b>	<b>31</b>	36	<b>40</b>	43	
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	<b>0,63</b>	0,71	0,79	<b>0,89</b>	0,96	<b>1,04</b>	<b>0,94</b>	1,04	<b>1,25</b>	1,36	<b>1,52</b>	1,68	1,35	<b>1,59</b>	<b>1,77</b>	2	<b>2,26</b>	2,48	
	Dp Heat. (E) kPa	<b>0,7</b>	0,9	1,0	<b>1,3</b>	1,5	<b>1,7</b>	<b>1,7</b>	2,0	<b>2,8</b>	3,3	<b>4,0</b>	4,8	3,9	<b>5,2</b>	<b>6,3</b>	7,8	<b>9,7</b>	11,4	

Model		CRC 43						CRC 53						CRC63						
		1	2 (E)	3 (E)	4	5 (E)	6	1	2 (E)	3	4 (E)	5 (E)	6	1 (E)	2	3 (E)	4	5 (E)	6	
			MIN	MED		MAX		MIN		MED		MAX	MIN		MED		MAX		MAX	
Speed																				
Air flow	m <sup>3</sup> /h	185	<b>265</b>	<b>335</b>	400	<b>485</b>	570	250	<b>315</b>	420	<b>495</b>	545	<b>650</b>	<b>415</b>	505	<b>590</b>	680	<b>760</b>	830	
Cooling total emission (E)	kW	1,25	<b>1,71</b>	<b>2,11</b>	2,43	<b>2,83</b>	3,19	1,66	<b>2,01</b>	2,55	<b>2,90</b>	3,13	<b>3,58</b>	<b>2,50</b>	2,94	<b>3,32</b>	3,70	<b>4,01</b>	4,26	
Cooling sensible emission (E)	kW	0,91	<b>1,26</b>	<b>1,57</b>	1,82	<b>2,15</b>	2,45	1,22	<b>1,49</b>	1,91	<b>2,19</b>	2,38	<b>2,76</b>	<b>1,87</b>	2,23	<b>2,54</b>	2,86	<b>3,12</b>	3,35	
Heating (E)	kW	1,25	<b>1,74</b>	<b>2,18</b>	2,52	<b>2,97</b>	3,41	1,65	<b>2,02</b>	2,61	<b>3,00</b>	3,24	<b>3,75</b>	<b>2,56</b>	3,05	<b>3,45</b>	3,90	<b>4,26</b>	4,56	
Heating - Water 70-60 °C	kW	2,51	<b>3,51</b>	<b>4,36</b>	5,08	<b>6,00</b>	6,87	3,32	<b>4,07</b>	5,26	<b>6,04</b>	6,54	<b>7,57</b>	<b>5,17</b>	6,15	<b>6,96</b>	7,87	<b>8,61</b>	9,22	
Dp Cooling (E)	kPa	6,5	<b>11,2</b>	<b>16,2</b>	20,8	<b>27,2</b>	33,8	4,1	<b>5,8</b>	8,8	<b>11,1</b>	12,7	<b>16,2</b>	<b>8,6</b>	11,4	<b>14,1</b>	17,2	<b>19,8</b>	22,1	
Dp Heating (E)	kPa	5,3	<b>9,5</b>	<b>14,0</b>	18,2	<b>24,3</b>	30,8	3,4	<b>4,8</b>	7,5	<b>9,6</b>	11,0	<b>14,2</b>	<b>7,3</b>	9,9	<b>12,3</b>	15,2	<b>17,8</b>	20,1	
Fan (E)	W	14	<b>21</b>	<b>28</b>	34	<b>44</b>	57	18	<b>22</b>	32	<b>39</b>	46	<b>61</b>	<b>37</b>	46	<b>55</b>	67	<b>78</b>	88	
Sound power (E)	dB(A)	27	<b>33</b>	<b>39</b>	43	<b>47</b>	52	26	<b>31</b>	37	<b>41</b>	43	<b>48</b>	<b>37</b>	42	<b>46</b>	49	<b>52</b>	54	
Sound pressure (*)	dB(A)	18	<b>24</b>	<b>30</b>	34	<b>38</b>	43	17	<b>22</b>	28	<b>32</b>	34	<b>39</b>	<b>28</b>	33	<b>37</b>	40	<b>43</b>	45	
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	1,34	<b>1,73</b>	<b>2,06</b>	2,32	<b>2,65</b>	2,88	1,77	<b>2,07</b>	2,53	<b>2,83</b>	3,03	<b>3,42</b>	<b>2,50</b>	2,87	<b>3,19</b>	3,54	<b>3,81</b>	4,04	
	Dp Heat. (E) kPa	3,9	<b>6,0</b>	<b>8,2</b>	10,1	<b>12,8</b>	14,8	1,2	<b>1,6</b>	2,3	<b>2,8</b>	3,2	<b>3,9</b>	<b>3,2</b>	4,1	<b>4,9</b>	5,8	<b>6,7</b>	7,4	

Model		CRC 73						CRC 83						CRC 93						
		1	2 (E)	3	4 (E)	5	6 (E)	1	2 (E)	3	4 (E)	5	6 (E)	1	2 (E)	3	4 (E)	5	6 (E)	
			MIN		MED		MAX		MIN		MED		MAX		MIN		MED		MAX	
Speed																				
Air flow	m <sup>3</sup> /h	445	<b>535</b>	630	<b>735</b>	840	<b>925</b>	510	<b>655</b>	815	<b>1020</b>	1100	<b>1200</b>	735	<b>830</b>	980	<b>1210</b>	1365	<b>1500</b>	
Cooling total emission (E)	kW	2,82	<b>3,29</b>	3,74	<b>4,21</b>	4,66	<b>5,01</b>	3,01	<b>3,68</b>	4,32	<b>5,09</b>	5,36	<b>5,69</b>	4,00	<b>4,38</b>	4,95	<b>5,74</b>	6,21	<b>6,56</b>	
Cooling sensible emission (E)	kW	2,08	<b>2,45</b>	2,80	<b>3,19</b>	3,56	<b>3,85</b>	2,27	<b>2,82</b>	3,35	<b>4,02</b>	4,26	<b>4,55</b>	3,08	<b>3,40</b>	3,89	<b>4,60</b>	5,03	<b>5,37</b>	
Heating (E)	kW	2,83	<b>3,34</b>	3,83	<b>4,33</b>	4,83	<b>5,23</b>	3,22	<b>4,02</b>	4,78	<b>5,75</b>	6,11	<b>6,55</b>	4,42	<b>4,86</b>	5,58	<b>6,62</b>	7,26	<b>7,78</b>	
Heating - Water 70-60 °C	kW	5,71	<b>6,72</b>	7,67	<b>8,73</b>	9,76	<b>10,55</b>	6,49	<b>8,11</b>	9,67	<b>11,63</b>	12,36	<b>13,25</b>	8,87	<b>9,82</b>	11,29	<b>13,39</b>	14,70	<b>15,74</b>	
Dp Cooling (E)	kPa	12,3	<b>16,2</b>	20,3	<b>25,1</b>	30,1	<b>34,2</b>	7,2	<b>10,3</b>	13,8	<b>18,4</b>	20,2	<b>22,5</b>	11,8	<b>13,8</b>	17,3	<b>22,4</b>	25,9	<b>28,6</b>	
Dp Heating (E)	kPa	10,1	<b>13,5</b>	17,2	<b>21,3</b>	25,9	<b>29,7</b>	5,6	<b>8,3</b>	11,3	<b>15,6</b>	17,3	<b>19,6</b>	9,8	<b>11,6</b>	14,8	<b>19,9</b>	23,5	<b>26,5</b>	
Fan (E)	W	44	<b>54</b>	66	<b>79</b>	92	<b>103</b>	47	<b>62</b>	81	<b>105</b>	116	<b>130</b>	78	<b>92</b>	108	<b>134</b>	152	<b>176</b>	
Sound power (E)	dB(A)	38	<b>42</b>	47	<b>51</b>	54	<b>56</b>	39	<b>45</b>	50	<b>56</b>	58	<b>60</b>	47	<b>50</b>	54	<b>58</b>	62	<b>64</b>	
Sound pressure (*)	dB(A)	29	<b>33</b>	38	<b>42</b>	45	<b>47</b>	30	<b>36</b>	41	<b>47</b>	49	<b>51</b>	38	<b>41</b>	45	<b>49</b>	53	<b>55</b>	
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	2,89	<b>3,29</b>	3,68	<b>4,09</b>	4,49	<b>4,79</b>	3,03	<b>3,60</b>	4,17	<b>4,86</b>	5,11	<b>5,41</b>	3,89	<b>4,22</b>	4,74	<b>5,46</b>	5,90	<b>6,23</b>	
	Dp Heat. (E) kPa	3,4	<b>4,3</b>	5,2	<b>6,3</b>	7,4	<b>8,3</b>	3,7	<b>5,0</b>	6,5	<b>8,5</b>	9,3	<b>10,3</b>	5,8	<b>6,7</b>	8,2	<b>10,5</b>	12,0	<b>13,2</b>	

(E) = EUROVENT certified performance.

MIN-MED-MAX = Standard connected speeds.

(\*) = The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m<sup>3</sup> room and a reverberation time of 0.5 sec.

## Units with 4 row coil

**2 pipe units.** The following standard rating conditions are used:

**COOLING (summer mode)**

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

**HEATING (winter mode)**

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

Model	CRC 14						CRC 24						CRC 34							
	1 (E)	2	3	4 (E)	5	6 (E)	1 (E)	2	3 (E)	4	5 (E)	6	1	2 (E)	3 (E)	4	5 (E)	6		
Speed	MIN			MED		MAX	MIN		MED		MAX		MIN	MED		MAX				
Air flow	m <sup>3</sup> /h	<b>105</b>	125	150	<b>175</b>	195	<b>220</b>	<b>145</b>	170	<b>220</b>	250	<b>295</b>	340	185	<b>235</b>	<b>270</b>	325	<b>385</b>	440	
Cooling total emission (E)	kW	<b>0,65</b>	0,77	0,87	<b>1,00</b>	1,08	<b>1,20</b>	<b>1,00</b>	1,11	<b>1,41</b>	1,56	<b>1,78</b>	2,00	1,32	<b>1,63</b>	<b>1,87</b>	2,17	<b>2,53</b>	2,83	
Cooling sensible emission (E)	kW	<b>0,49</b>	0,58	0,66	<b>0,77</b>	0,84	<b>0,94</b>	<b>0,73</b>	0,82	<b>1,05</b>	1,17	<b>1,35</b>	1,53	0,95	<b>1,18</b>	<b>1,36</b>	1,59	<b>1,86</b>	2,09	
Heating (E)	kW	<b>0,69</b>	0,80	0,92	<b>1,07</b>	1,17	<b>1,31</b>	<b>0,99</b>	1,11	<b>1,43</b>	1,60	<b>1,83</b>	2,08	1,30	<b>1,62</b>	<b>1,87</b>	2,19	<b>2,59</b>	2,88	
Heating - Water 70-60 °C	kW	<b>1,38</b>	1,62	1,86	<b>2,15</b>	2,36	<b>2,63</b>	<b>1,98</b>	2,24	<b>2,88</b>	3,22	<b>3,69</b>	4,19	2,60	<b>3,23</b>	<b>3,73</b>	4,40	<b>5,14</b>	5,80	
Dp Cooling (E)	kPa	<b>1,9</b>	2,5	3,2	<b>4,0</b>	4,7	<b>5,6</b>	<b>4,9</b>	6,1	<b>9,1</b>	11,0	<b>13,9</b>	17,2	3,7	<b>5,3</b>	<b>6,7</b>	8,8	<b>11,5</b>	14,1	
Dp Heating (E)	kPa	<b>1,7</b>	2,2	2,8	<b>3,7</b>	4,3	<b>5,3</b>	<b>4,0</b>	4,9	<b>7,6</b>	9,3	<b>11,8</b>	14,8	2,8	<b>4,2</b>	<b>5,4</b>	7,1	<b>9,8</b>	11,5	
Fan (E)	W	<b>16</b>	19	21	<b>25</b>	29	<b>33</b>	<b>14</b>	16	<b>22</b>	26	<b>32</b>	40	15	<b>20</b>	<b>25</b>	32	<b>41</b>	49	
Sound power (E)	dB(A)	<b>32</b>	34	36	<b>39</b>	42	<b>45</b>	<b>30</b>	33	<b>40</b>	43	<b>47</b>	51	31	<b>36</b>	<b>40</b>	45	<b>49</b>	52	
Sound pressure (*)	dB(A)	<b>23</b>	25	27	<b>30</b>	33	<b>36</b>	<b>21</b>	24	<b>31</b>	34	<b>38</b>	42	22	<b>27</b>	<b>31</b>	36	<b>40</b>	43	
1 row heating additional coil (Water 70/60 °C)	Heating (E)	kW	<b>0,63</b>	0,71	0,79	<b>0,89</b>	0,96	<b>1,04</b>	<b>0,94</b>	1,04	<b>1,25</b>	1,36	<b>1,52</b>	1,68	1,35	<b>1,59</b>	<b>1,77</b>	2,00	<b>2,26</b>	2,48
	Dp Heat. (E)	kPa	<b>0,7</b>	0,9	1,0	<b>1,3</b>	1,5	<b>1,7</b>	<b>1,7</b>	2,0	<b>2,8</b>	3,3	<b>4,0</b>	4,8	3,9	<b>5,2</b>	<b>6,3</b>	7,8	<b>9,7</b>	11,4

Model	CRC 44						CRC 54						CRC 64							
	1	2 (E)	3 (E)	4	5 (E)	6	1	2 (E)	3	4 (E)	5 (E)	6	1 (E)	2	3 (E)	4	5 (E)	6		
Speed	MIN	MED			MAX		MIN		MED		MAX	MIN		MED		MAX				
Air flow	m <sup>3</sup> /h	185	<b>265</b>	<b>335</b>	400	<b>485</b>	570	250	<b>315</b>	420	<b>495</b>	<b>545</b>	650	<b>415</b>	505	<b>590</b>	680	<b>760</b>	830	
Cooling total emission (E)	kW	1,31	<b>1,81</b>	<b>2,25</b>	2,62	<b>3,08</b>	3,50	1,77	<b>2,17</b>	2,79	<b>3,21</b>	<b>3,49</b>	4,03	<b>2,79</b>	3,34	<b>3,81</b>	4,31	<b>4,71</b>	5,04	
Cooling sensible emission (E)	kW	0,94	<b>1,32</b>	<b>1,65</b>	1,93	<b>2,30</b>	2,63	1,28	<b>1,58</b>	2,04	<b>2,36</b>	<b>2,58</b>	3,01	<b>2,03</b>	2,45	<b>2,81</b>	3,20	<b>3,52</b>	3,79	
Heating (E)	kW	1,28	<b>1,80</b>	<b>2,27</b>	2,64	<b>3,14</b>	3,62	1,71	<b>2,10</b>	2,74	<b>3,16</b>	<b>3,46</b>	4,01	<b>2,82</b>	3,39	<b>3,90</b>	4,46	<b>4,92</b>	5,31	
Heating - Water 70-60 °C	kW	2,57	<b>3,62</b>	<b>4,56</b>	5,32	<b>6,33</b>	7,30	3,44	<b>4,23</b>	5,51	<b>6,37</b>	<b>6,97</b>	8,07	<b>5,66</b>	6,81	<b>7,85</b>	8,98	<b>9,90</b>	10,68	
Dp Cooling (E)	kPa	3,4	<b>6,1</b>	<b>9,0</b>	11,7	<b>15,5</b>	19,6	7,3	<b>10,4</b>	16,3	<b>20,8</b>	<b>24,2</b>	31,3	<b>14,4</b>	19,7	<b>24,8</b>	30,9	<b>36,2</b>	40,9	
Dp Heating (E)	kPa	2,6	<b>5,0</b>	<b>7,2</b>	9,4	<b>12,8</b>	16,4	5,6	<b>8,1</b>	12,9	<b>16,6</b>	<b>19,5</b>	25,2	<b>11,9</b>	16,5	<b>21,1</b>	26,8	<b>31,8</b>	36,3	
Fan (E)	W	14	<b>21</b>	<b>28</b>	34	<b>44</b>	57	18	<b>22</b>	32	<b>39</b>	<b>46</b>	61	<b>37</b>	46	<b>55</b>	67	<b>78</b>	88	
Sound power (E)	dB(A)	27	<b>33</b>	<b>39</b>	43	<b>47</b>	52	26	<b>31</b>	37	<b>41</b>	<b>43</b>	48	<b>37</b>	42	<b>46</b>	49	<b>52</b>	54	
Sound pressure (*)	dB(A)	18	<b>24</b>	<b>30</b>	34	<b>38</b>	43	17	<b>22</b>	28	<b>32</b>	<b>34</b>	39	<b>28</b>	33	<b>37</b>	40	<b>43</b>	45	
1 row heating additional coil (Water 70/60 °C)	Heating (E)	kW	1,34	<b>1,73</b>	<b>2,06</b>	2,32	<b>2,65</b>	2,88	1,77	<b>2,07</b>	2,53	<b>2,83</b>	<b>3,03</b>	3,42	<b>2,50</b>	2,87	<b>3,19</b>	3,54	<b>3,81</b>	4,04
	Dp Heat. (E)	kPa	3,9	<b>6,0</b>	<b>8,2</b>	10,1	<b>12,8</b>	14,8	1,2	<b>1,6</b>	2,3	<b>2,8</b>	<b>3,2</b>	3,9	<b>3,2</b>	4,1	<b>4,9</b>	5,8	<b>6,7</b>	7,4

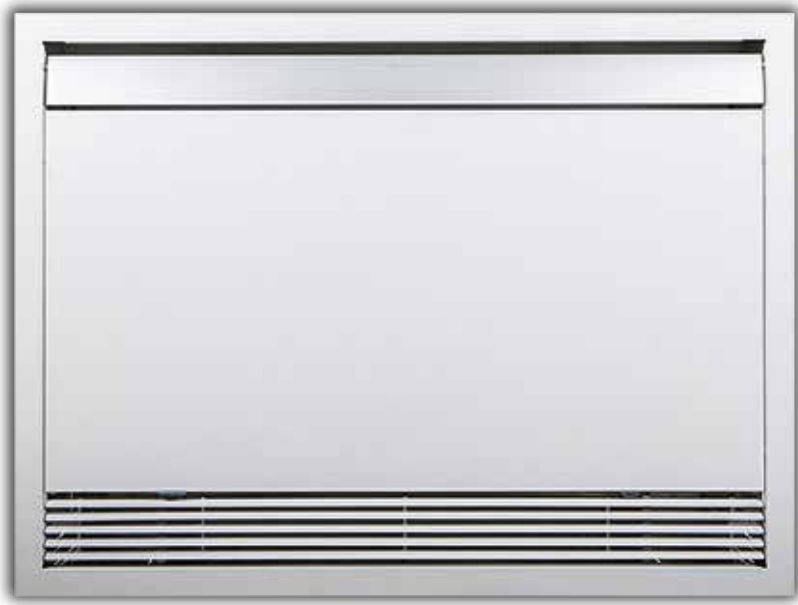
Model	CRC 74						CRC 84						CRC 94							
	1	2 (E)	3	4 (E)	5	6 (E)	1	2 (E)	3	4 (E)	5	6 (E)	1	2 (E)	3	4 (E)	5	6 (E)		
Speed	MIN			MED		MAX	MIN		MED		MAX	MIN		MED		MAX				
Air flow	m <sup>3</sup> /h	445	<b>535</b>	630	<b>735</b>	840	<b>925</b>	510	<b>655</b>	815	<b>1020</b>	1100	<b>1200</b>	735	<b>830</b>	980	<b>1210</b>	1365	<b>1500</b>	
Cooling total emission (E)	kW	2,99	<b>3,51</b>	4,01	<b>4,56</b>	5,08	<b>5,48</b>	3,22	<b>3,97</b>	4,72	<b>5,63</b>	5,94	<b>6,34</b>	4,34	<b>4,79</b>	5,45	<b>6,41</b>	6,98	<b>7,42</b>	
Cooling sensible emission (E)	kW	2,18	<b>2,57</b>	2,96	<b>3,39</b>	3,80	<b>4,13</b>	2,38	<b>2,98</b>	3,58	<b>4,33</b>	4,59	<b>4,93</b>	3,28	<b>3,63</b>	4,18	<b>4,98</b>	5,48	<b>5,87</b>	
Heating (E)	kW	2,95	<b>3,49</b>	4,03	<b>4,62</b>	5,15	<b>5,59</b>	3,37	<b>4,26</b>	5,14	<b>6,27</b>	6,60	<b>7,20</b>	4,70	<b>5,23</b>	6,01	<b>7,18</b>	7,93	<b>8,52</b>	
Heating - Water 70-60 °C	kW	5,93	<b>7,02</b>	8,12	<b>9,30</b>	10,38	<b>11,26</b>	6,78	<b>8,55</b>	10,37	<b>12,52</b>	13,34	<b>14,36</b>	9,47	<b>10,55</b>	12,13	<b>14,52</b>	16,02	<b>17,23</b>	
Dp Cooling (E)	kPa	9,5	<b>12,5</b>	15,9	<b>20,0</b>	24,2	<b>27,7</b>	9,6	<b>14,0</b>	19,0	<b>26,0</b>	28,6	<b>32,2</b>	8,9	<b>10,6</b>	13,4	<b>17,8</b>	20,7	<b>23,2</b>	
Dp Heating (E)	kPa	7,5	<b>10,1</b>	13,1	<b>16,6</b>	20,1	<b>23,2</b>	8,5	<b>12,8</b>	17,9	<b>24,9</b>	27,8	<b>31,7</b>	8,3	<b>10,0</b>	12,8	<b>17,6</b>	20,9	<b>23,7</b>	
Fan (E)	W	44	<b>54</b>	66	<b>79</b>	92	<b>103</b>	47	<b>62</b>	81	<b>105</b>	116	<b>130</b>	78	<b>92</b>	108	<b>134</b>	152	<b>176</b>	
Sound power (E)	dB(A)	38	<b>42</b>	47	<b>51</b>	54	<b>56</b>	39	<b>45</b>	50	<b>56</b>	58	<b>60</b>	47	<b>50</b>	54	<b>58</b>	62	<b>64</b>	
Sound pressure (*)	dB(A)	29	<b>33</b>	38	<b>42</b>	45	<b>47</b>	30	<b>36</b>	41	<b>47</b>	49	<b>51</b>	38	<b>41</b>	45	<b>49</b>	53	<b>55</b>	
1 row heating additional coil (Water 70/60 °C)	Heating (E)	kW	2,89	<b>3,29</b>	3,68	<b>4,09</b>	4,49	<b>4,79</b>	3,03	<b>3,60</b>	4,17	<b>4,86</b>	5,11	<b>5,41</b>	3,89	<b>4,22</b>	4,74	<b>5,46</b>	5,90	<b>6,23</b>
	Dp Heat. (E)	kPa	3,4	<b>4,3</b>	5,2	<b>6,3</b>	7,4	<b>8,3</b>	3,7	<b>5,0</b>	6,5	<b>8,5</b>	9,3	<b>10,3</b>	5,8	<b>6,7</b>	8,2	<b>10,5</b>	12,0	<b>13,2</b>

(E) = EUROVENT certified performance.

MIN-MED-MAX = Standard connected speeds.

(\*) = The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m<sup>3</sup> room and a reverberation time of 0.5 sec.

# Breeze Frame Kit | FOR CARISMA CRC WALL CONCEALED INSTALLATION



**The Carisma Breeze frame kit** is available in **3 sizes** and allows the installation of **recessed** Carisma fan coils.

**The kit** includes a top closing panel that prevents the access to technical spaces and coil ensuring **the safety of the end user**.





**The aesthetic frame includes:**

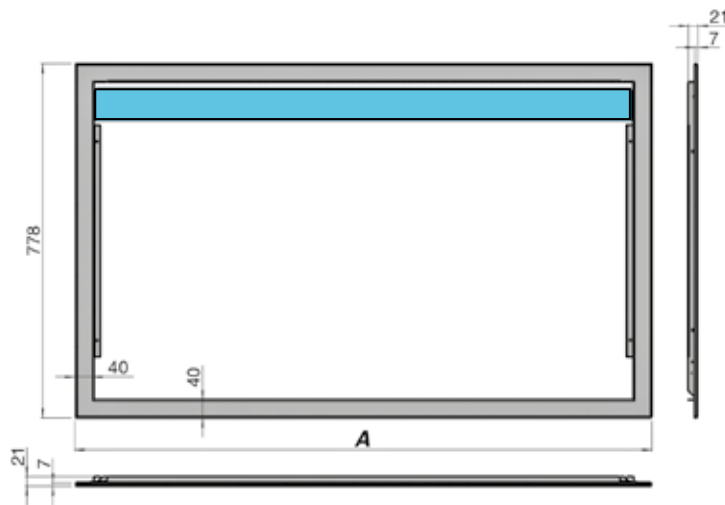
- the closing frame;
- air supply louvre;
- front panel;
- air intake grid.

**The air supply louvre** is made of extruded aluminum with satin finish.

**Perimeter frame, front panel** and **intake grid** are made of steel painted with epoxy polyester coat, dried in a furnace at 180 °C, colour RAL 9003. It is possible to repaint the entire frame of the same color as the wall.

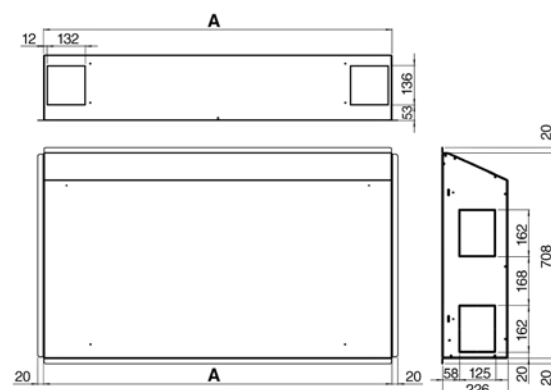
**The recessed box** is made of galvanized steel with opening for the electrical and hydraulic connections.

## Aesthetic frame dimensions



Size	Measurement A
<b>2</b>	837
<b>3/4</b>	1052
<b>5/6</b>	1267

## Recessed box dimensions



Size	Measurement A
<b>2</b>	771
<b>3/4</b>	986
<b>5/6</b>	1201

## Indoor Air Quality



The **CRC and CRC-ECM Crystall Sabiana** electrostatic filter matches the need for better air conditioning with the concepts of space and design.

With this filter the various stages of air treatment are combined in one appliance.

**Thanks to** this new patented filter (efficiency compliant with EN 16890), air pollutants such as cigarette smoke, dust (PM<sub>10</sub>, PM<sub>2.5</sub>), pollen and most biological organisms **are eliminated**.

In addition, as fresh air is not being introduced to obtain the best climatic conditions, there are consequential energy savings.

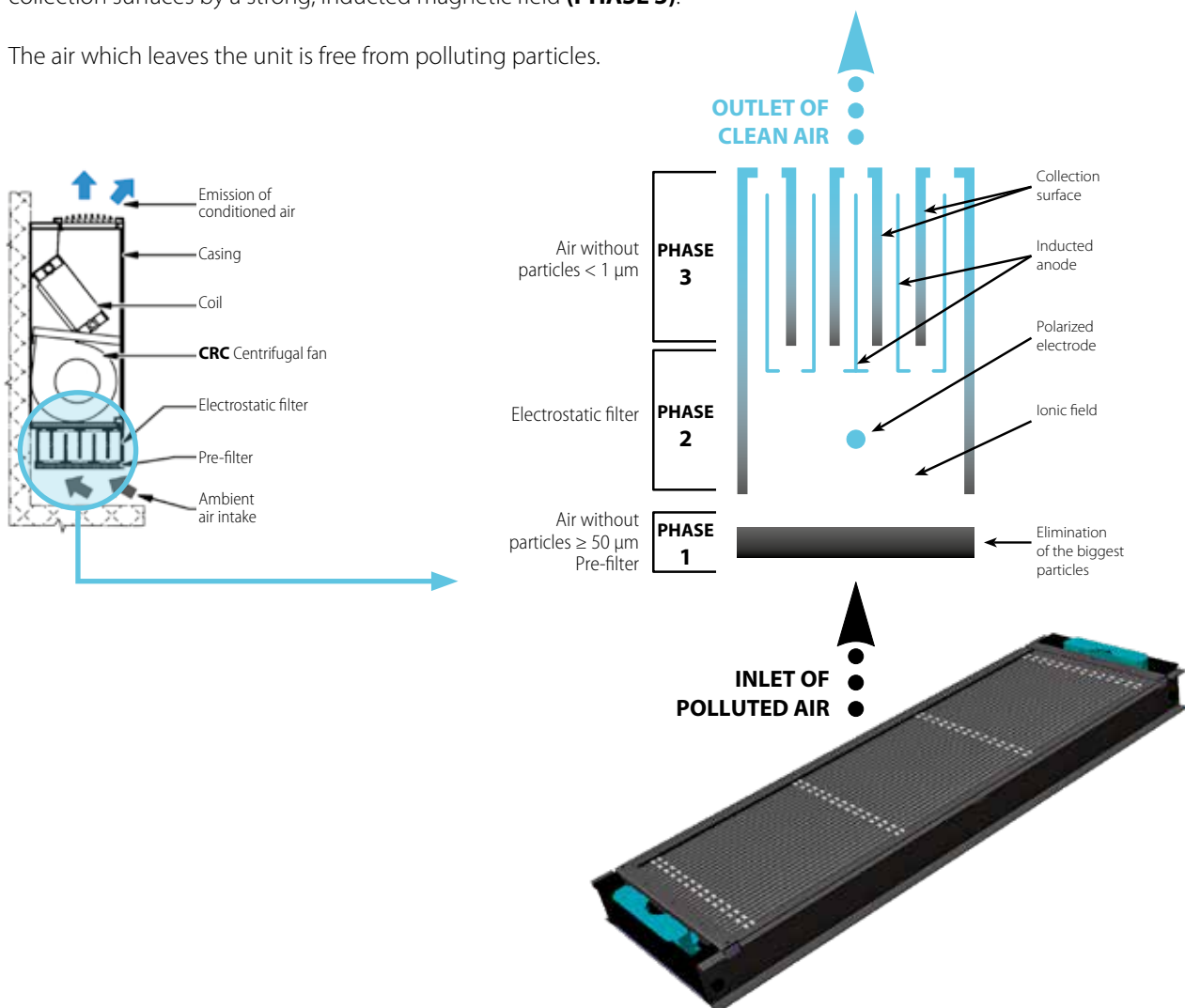
## Operating principle of the Crystall electrostatic filter

The air is sucked in and first passes a mechanical prefilter, which stops away particles of more than 50 µm (dust, insects, etc.). Then the smallest particles (50÷0.01 µm) are exposed to an intensive ionic field and are polarized (**PHASE 1**).

The charged particles passing through the second filter section, are pushed back by the anode and attracted by the collection surfaces by a strong, inducted magnetic field (**PHASE 2**).

The charged particles passing through the second filter section, are pushed back by the anode and attracted by the collection surfaces by a strong, inducted magnetic field (**PHASE 3**).

The air which leaves the unit is free from polluting particles.



## Electronic controls included

MV-MVB models	
<b>CB</b>	3 speed control
<b>CB-T</b>	3 speed control with electronic thermostat and manual summer/winter switch
<b>CB-C</b>	3 speed control with electronic thermostat and centralized summer/winter switch
<b>CB-AUT</b>	Automatic 3 speed control with electronic thermostat and centralized/manual summer/winter switch

**N.B.:** if the electrostatic filter or the electric heater is mounted, use the “**IAQ**” controls.

## Electronic wall controls

MV, MO-MVB and IV-IO models	
<b>WM-3V</b>	3 speed control
<b>WM-T</b>	3 speed control with electronic thermostat and manual summer/winter switch
<b>WM-TQR</b>	3 speed control with electronic thermostat and centralized/manual summer/winter switch
<b>WM-AU</b>	Automatic speed control with electronic thermostat and summer/winter switch (to be used with UPM-AU or UP-AU only)
<b>T-MB2</b>	Wall control with LCD color display and WiFi (to be used with UPM-AU or UP-AU only)
<b>WM-503-AC-EC</b>	Automatic speed control with electronic thermostat to be mounted in the 503 box (to be used with UP-503-AC-EC only)
<b>T2T</b>	Electromechanical thermostat with summer/winter switch (only for 2 pipe units)
<b>UPM-AU</b>	UP-AU power unit for WM-AU and T-MB2 remote controls, fitted on the unit
<b>UP-AU</b>	UP-AU power unit for WM-AU and T-MB2 remote controls, not fitted on the unit
<b>UP-503-AC-EC</b>	UP-503-AC-EC power unit for WM-503-AC-EC remote control, not fitted on the unit

## Electronic controls for MB boards

<b>MB-M</b>	MB electronic board fitted on the unit
<b>MB-S</b>	MB electronic board supplied with separate packaging
<b>T-MB2</b>	Wall control with LCD color display and WiFi (to be used with MB board only)
<b>T-MB-M</b>	Control fitted on the unit, for MV/MVB models with left connections (available with right connections, to be used with MB board only)
<b>T-MB-S</b>	Control supplied with separate packaging, for MV/MVB models with left connections (available with right connections, to be used with MB board only)
<b>RS-RT03</b>	RT03 infra-red remote control with receiver supplied with separate packaging (to be used with MB board only)
<b>RT03</b>	RT03 infra-red remote control supplied with separate packaging (to be used with MB board only)
<b>RS</b>	Receiver for RT03 infra-red remote control supplied with separate packaging (to be used with MB board only)
<b>PSM-DI</b>	PSM-DI multifunction control panel (to be used with MB board only)
<b>T-DI</b>	T-DI touch screen multifunction control panel (to be used with MB board only)
<b>SabWeb</b>	Web gateway for Sabiana Cloud (to be used with MB board only)

### Sabianet management system for a network of fan coils

<b>Sabianet</b>	Hardware/software supervisory system (to be used with MB board only)
<b>Router-S</b>	Router for Sabianet (default) or for BMS systems not provided by Sabiana
<b>SIOS</b>	Relay output board for Sabianet

## Controls for KNX systems

### KNX systems

<b>WM-KNX</b>	Wall control with electronic thermostat and summer/winter switch (to be used with UP-KNX and PL mounting plate only)
<b>UP-KNX</b>	UP-KNX power unit supplied with separate packaging
<b>PL-503-B</b>	Mounting plate for rectangular box
<b>PL-QUA-B</b>	Mounting plate for rectangular box

NOTE: for more information about Controls and for full list of main Accessories, please see the dedicated pages.

**Built-in electronic control**



**T-MB2**  
**Wall control with LCD color display and WiFi**



**WM-TQR**  
**Wall electronic control**



# Carisma CRC-ECM



Fan Coil Unit with Centrifugal Fan with EC Brushless Electronic Motor and Inverter Board

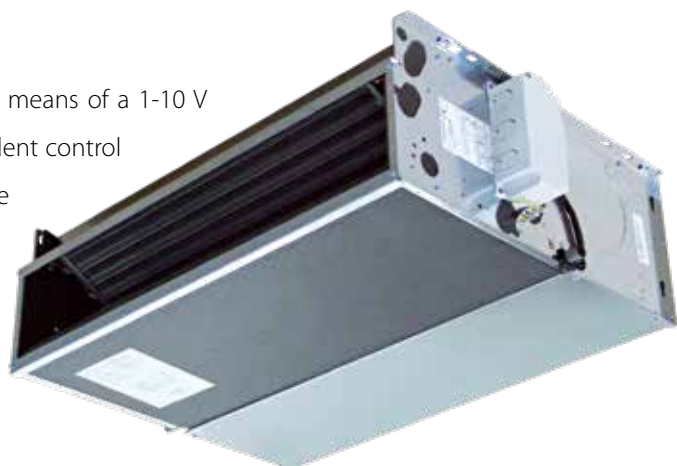


Range includes **5 air flow rates** (from 115 to 1395 m<sup>3</sup>/h) and **5 models** (for wall and ceiling installation, with casing and concealed), each equipped with 3 or 4 row coil and with the possibility to add a 1 or 2 row coil for 4 pipe systems. This is the series with the **lowest electrical consumption** in relation to both heat performance as well as working static performance and is particularly suited to satisfying the strictest energy consumption needs **of class A** buildings, and to ensuring excellent acoustic comfort.

**The ECM range** makes use of the excellent experience gained with the SkyStar Cassette fan coils with inverter board, first in the world in production since 2009, and which have had great success on all markets.

The innovative **brushless** and **sensorless** type synchronous electronic motor with permanent magnets, is controlled by an inverter board designed and developed in Italy. The board is mounted on the unit, closed to the motor, without the need to be cooled down by the air flow.

The air flow rate can be varied **in continuously** by means of a 1-10 V signal generated by Sabiana controls or by independent control systems. 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.



(\*) See availability function on controls.

The extreme efficiency, also at low speed, makes possible a great reduction in electric consumption (50% less in comparison to CRC AC motor) with absorption values under normal operating conditions that **do not exceed 16 Watt**.

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

The full compliance with the Electromagnetic Compatibility Directive and with the other severe Standards in force is certified by an independent institute.

**For the technical characteristics of the various components refer to Carisma CRC Fan Coil Unit, except for Electronic motor:**

Three phase permanent magnet brushless electronic motor that is controlled with current reconstructed 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 - 240 V** and frequency of **50 - 60 Hz**.



(\*)

**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.



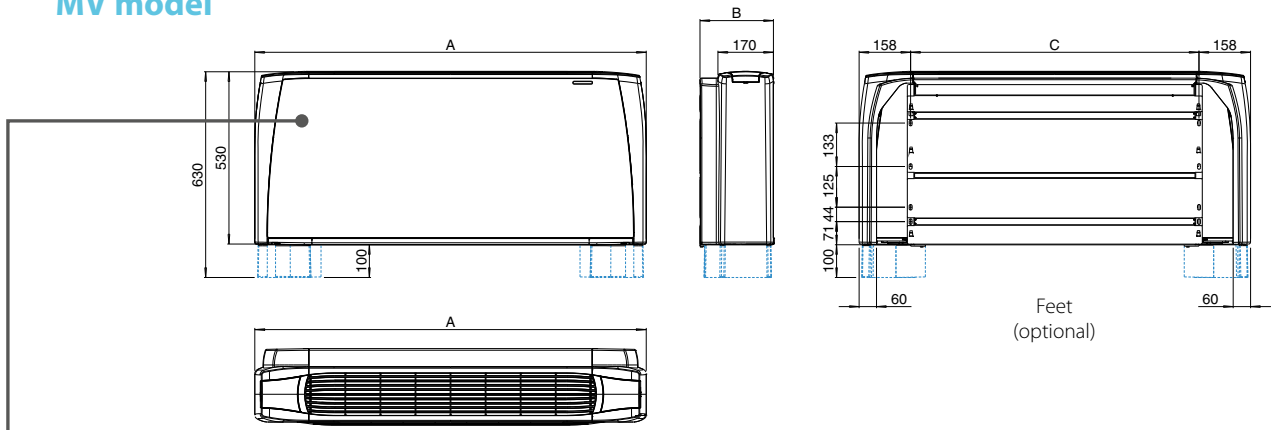
(\*)

**Sabiana BLE**

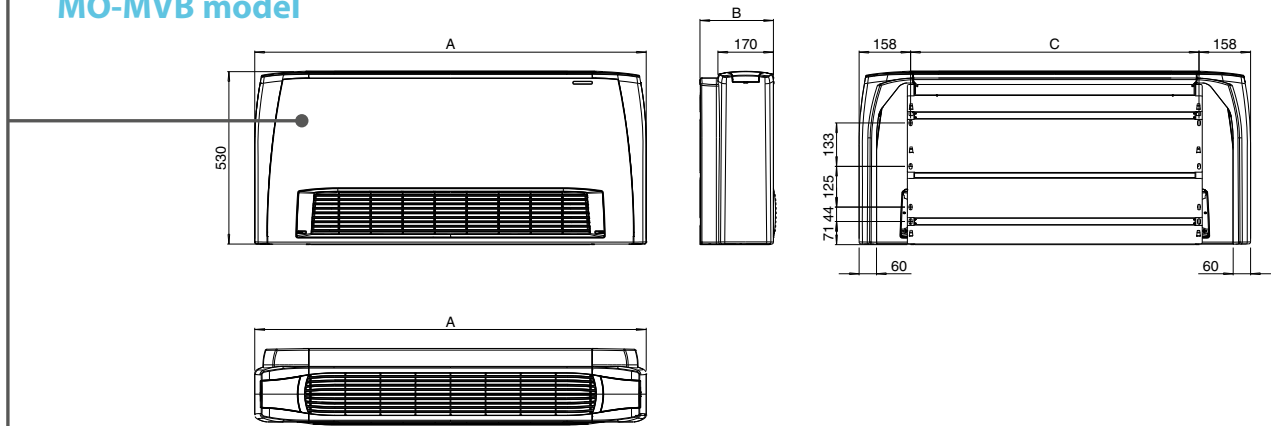
Sabiana BLE is the new App for Android™ and iOS systems to set, manage and control Your climatisation system via Bluetooth Low Energy (BLE) transmission. Free and easy to configure and use, it needs only a smartphone with a Bluetooth connection (version 4.0 or later versions).

(\*) See availability function on controls.

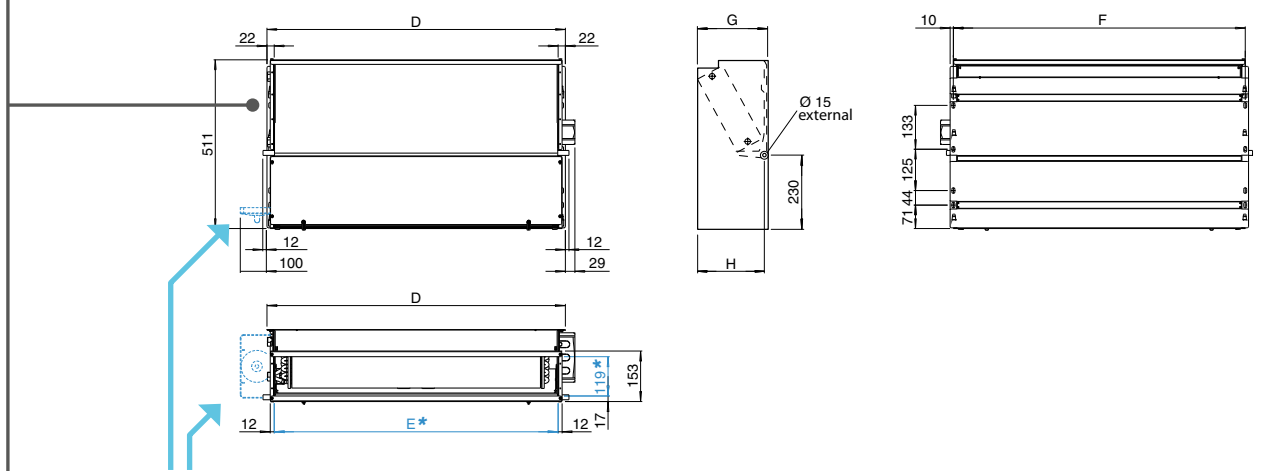
## MV model



## MO-MVB model



## IV-IO model



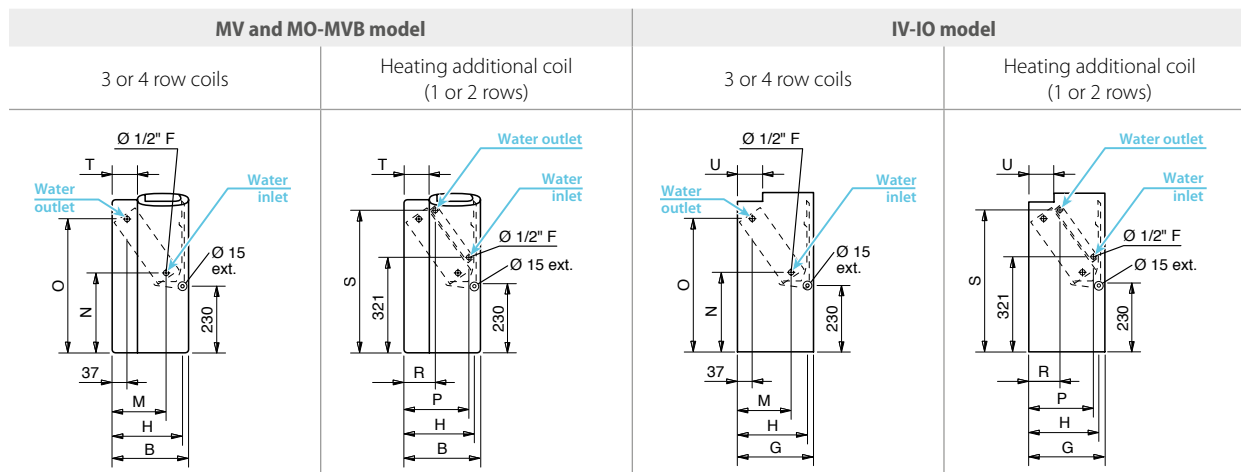
Coil connections on the left

\* Supply frame dimension = E x 119 mm



## DIMENSIONS, WEIGHT, WATER CONTENT

### Coil connections



### Dimension (mm)

Model	2	4	6	7	9
<b>A</b>	770	985	1200	1415	1415
<b>B</b>	225	225	225	225	255
<b>C</b>	454	669	884	1099	1099
<b>D</b>	474	689	904	1119	1119
<b>E</b>	430	645	860	1075	1075
<b>F</b>	454	669	884	1099	1099
<b>G</b>	218	218	218	218	248
<b>H</b>	205	205	205	205	235
<b>M</b>	145	145	145	145	170
<b>N</b>	260	260	260	260	270
<b>O</b>	460	460	460	460	450
<b>P</b>	185	185	185	185	210
<b>R</b>	105	105	105	105	110
<b>S</b>	475	475	475	475	465
<b>T</b>	55	55	55	55	85
<b>U</b>	65	65	65	65	95

### Weight (kg)

	Model	Weight with packaging					Weight without packaging					
		2	4	6	7	9	2	4	6	7	9	
MV MO-MVB	ROWS	<b>3</b>	17,2	22,5	27,7	32,1	35,9	15,4	20,2	24,9	28,8	32,2
		<b>3+1</b>	18,0	23,7	29,2	33,9	37,7	16,2	21,4	26,4	30,6	34,0
		<b>3+2</b>	18,6	24,4	30,1	35,0	38,8	16,8	22,1	27,3	31,7	35,1
		<b>4</b>	18,0	23,5	29,0	33,6	37,4	16,2	21,2	26,2	30,3	33,7
		<b>4+1</b>	18,8	24,7	30,5	35,4	39,2	17,0	22,4	27,7	32,1	35,5
IV-10	ROWS	<b>3</b>	13,6	18,1	22,8	27,0	30,4	11,8	16,3	20,5	24,2	27,3
		<b>3+1</b>	14,4	19,3	24,3	28,8	32,2	12,6	17,5	22,0	26,0	29,1
		<b>3+2</b>	15,0	20,0	25,2	29,9	33,3	13,2	18,2	22,9	27,1	30,2
		<b>4</b>	14,4	19,1	24,1	28,5	31,9	12,6	17,3	21,8	25,7	28,8
		<b>4+1</b>	15,2	20,3	25,6	30,3	33,7	13,4	18,5	23,3	27,5	30,6

### Water content (litres)

Model	2	4	6	7	9	
ROWS	<b>3</b>	0,6	0,9	1,6	1,7	1,9
	<b>4</b>	0,8	1,3	2,2	2,4	2,8
	<b>+1</b>	0,2	0,3	0,5	0,5	0,6
	<b>+2</b>	0,4	0,6	1,0	1,0	1,2

## Units with 3 row coil

**2 pipe units.** The following standard rating conditions are used:

### COOLING (summer mode)

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

### HEATING (winter mode)

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

Model	CRC-ECM 23					CRC-ECM 43					CRC-ECM 63					
	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	
Inverter Power (V)																
Speed	MIN		MED		MAX	MIN		MED		MAX	MIN		MED		MAX	
Air flow	m <sup>3</sup> /h	<b>120</b>	170	<b>220</b>	270	<b>330</b>	<b>210</b>	280	<b>350</b>	430	<b>515</b>	<b>305</b>	395	<b>495</b>	610	<b>735</b>
Cooling total emission (E)	kW	<b>0,73</b>	0,97	<b>1,18</b>	1,37	<b>1,59</b>	<b>1,41</b>	1,80	<b>2,18</b>	2,57	<b>2,95</b>	<b>1,96</b>	2,44	<b>2,93</b>	3,44	<b>3,96</b>
Cooling sensible emission (E)	kW	<b>0,55</b>	0,74	<b>0,92</b>	1,09	<b>1,28</b>	<b>1,03</b>	1,33	<b>1,64</b>	1,95	<b>2,26</b>	<b>1,46</b>	1,83	<b>2,22</b>	2,64	<b>3,08</b>
Heating (E)	kW	<b>0,77</b>	1,04	<b>1,29</b>	1,52	<b>1,80</b>	<b>1,42</b>	1,84	<b>2,26</b>	2,69	<b>3,14</b>	<b>1,96</b>	2,46	<b>3,00</b>	3,55	<b>4,14</b>
Heating - Water 70-60 °C	kW	<b>1,55</b>	2,10	<b>2,61</b>	3,09	<b>3,64</b>	<b>2,85</b>	3,70	<b>4,55</b>	5,43	<b>6,33</b>	<b>3,95</b>	4,97	<b>6,04</b>	7,17	<b>8,37</b>
Dp Cooling (E)	kPa	<b>2,2</b>	3,6	<b>5,1</b>	6,7	<b>8,6</b>	<b>7,9</b>	12,0	<b>17,0</b>	22,6	<b>28,9</b>	<b>5,5</b>	8,0	<b>11,1</b>	14,8	<b>19,0</b>
Dp Heating (E)	kPa	<b>1,6</b>	2,7	<b>3,9</b>	5,2	<b>7,0</b>	<b>6,6</b>	10,4	<b>14,9</b>	20,4	<b>26,7</b>	<b>4,5</b>	6,8	<b>9,6</b>	12,9	<b>17,0</b>
Fan (E)	W	<b>7</b>	9	<b>11</b>	15	<b>21</b>	<b>6</b>	9	<b>12</b>	17	<b>25</b>	<b>7</b>	10	<b>15</b>	22	<b>32</b>
Sound power (E)	dB(A)	<b>30</b>	36	<b>41</b>	47	<b>51</b>	<b>30</b>	36	<b>42</b>	47	<b>51</b>	<b>33</b>	38	<b>44</b>	49	<b>54</b>
Sound pressure (*)	dB(A)	<b>21</b>	27	<b>32</b>	38	<b>42</b>	<b>21</b>	27	<b>33</b>	38	<b>42</b>	<b>24</b>	29	<b>35</b>	40	<b>45</b>
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	<b>0,81</b>	1,04	<b>1,23</b>	1,42	<b>1,63</b>	<b>1,47</b>	1,79	<b>2,11</b>	2,42	<b>2,74</b>	<b>2,00</b>	2,40	<b>2,80</b>	3,24	<b>3,68</b>
	Dp Heat. (E) kPa	<b>1,3</b>	1,9	<b>2,6</b>	3,4	<b>4,3</b>	<b>4,5</b>	6,4	<b>8,5</b>	10,9	<b>13,6</b>	<b>1,5</b>	2,1	<b>2,8</b>	3,6	<b>4,5</b>

Model	CRC-ECM 73					CRC-ECM 93					
	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	
Inverter Power (V)											
Speed	MIN		MED		MAX	MIN		MED		MAX	
Air flow	m <sup>3</sup> /h	<b>400</b>	500	<b>610</b>	755	<b>890</b>	<b>605</b>	785	<b>945</b>	1175	<b>1395</b>
Cooling total emission (E)	kW	<b>2,60</b>	3,13	<b>3,68</b>	4,36	<b>4,94</b>	<b>3,45</b>	4,22	<b>4,82</b>	5,60	<b>6,26</b>
Cooling sensible emission (E)	kW	<b>1,92</b>	2,33	<b>2,77</b>	3,32	<b>3,80</b>	<b>2,63</b>	3,28	<b>3,79</b>	4,49	<b>5,10</b>
Heating (E)	kW	<b>2,56</b>	3,13	<b>3,72</b>	4,43	<b>5,08</b>	<b>3,74</b>	4,65	<b>5,41</b>	6,46	<b>7,38</b>
Heating - Water 70-60 °C	kW	<b>5,16</b>	6,30	<b>7,50</b>	8,94	<b>10,25</b>	<b>7,55</b>	9,40	<b>10,94</b>	13,06	<b>14,95</b>
Dp Cooling (E)	kPa	<b>10,5</b>	14,5	<b>19,4</b>	26,1	<b>32,6</b>	<b>8,9</b>	12,7	<b>16,1</b>	21,1	<b>25,9</b>
Dp Heating (E)	kPa	<b>8,5</b>	12,1	<b>16,4</b>	22,2	<b>28,3</b>	<b>7,3</b>	10,7	<b>14,0</b>	19,1	<b>24,2</b>
Fan (E)	W	<b>9,0</b>	13,0	<b>18,5</b>	28,5	<b>41,0</b>	<b>16,0</b>	25,0	<b>41,0</b>	65,0	<b>99,0</b>
Sound power (E)	dB(A)	<b>37</b>	43	<b>48</b>	53	<b>57</b>	<b>44</b>	50	<b>55</b>	60	<b>64</b>
Sound pressure (*)	dB(A)	<b>28</b>	34	<b>39</b>	44	<b>48</b>	<b>35</b>	41	<b>46</b>	51	<b>55</b>
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	<b>2,65</b>	3,10	<b>3,56</b>	4,13	<b>4,63</b>	<b>3,40</b>	4,08	<b>4,62</b>	5,35	<b>5,98</b>
	Dp Heat. (E) kPa	<b>2,9</b>	3,9	<b>4,9</b>	6,4	<b>7,8</b>	<b>4,6</b>	6,3	<b>7,8</b>	10,1	<b>12,3</b>

(E) = EUROVENT certified performance.

(\*) = The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m<sup>3</sup> room and a reverberation time of 0.5 sec.

## Units with 4 row coil

**2 pipe units.** The following standard rating conditions are used:

### COOLING (summer mode)

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

### HEATING (winter mode)

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

Model	CRC-ECM 24					CRC-ECM 44					CRC-ECM 64					
	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	
Inverter Power (V)																
Speed	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	
Air flow	m <sup>3</sup> /h	<b>115</b>	160	<b>210</b>	260	<b>325</b>	<b>200</b>	265	<b>340</b>	415	<b>505</b>	<b>290</b>	375	<b>475</b>	590	<b>720</b>
Cooling total emission (E)	kW	<b>0,77</b>	1,06	<b>1,32</b>	1,57	<b>1,86</b>	<b>1,43</b>	1,83	<b>2,27</b>	2,71	<b>3,17</b>	<b>2,05</b>	2,59	<b>3,19</b>	3,84	<b>4,51</b>
Cooling sensible emission (E)	kW	<b>0,56</b>	0,78	<b>0,98</b>	1,19	<b>1,42</b>	<b>1,03</b>	1,34	<b>1,67</b>	2,02	<b>2,39</b>	<b>1,48</b>	1,89	<b>2,34</b>	2,84	<b>3,38</b>
Heating (E)	kW	<b>0,78</b>	1,08	<b>1,37</b>	1,65	<b>1,98</b>	<b>1,42</b>	1,83	<b>2,30</b>	2,77	<b>3,32</b>	<b>2,02</b>	2,59	<b>3,23</b>	3,93	<b>4,68</b>
Heating - Water 70-60 °C	kW	<b>1,57</b>	2,18	<b>2,75</b>	3,33	<b>4,01</b>	<b>2,83</b>	3,67	<b>4,59</b>	5,57	<b>6,60</b>	<b>4,05</b>	5,21	<b>6,48</b>	7,90	<b>9,43</b>
Dp Cooling (E)	kPa	<b>3,2</b>	5,5	<b>8,0</b>	11,0	<b>14,8</b>	<b>4,0</b>	6,1	<b>8,9</b>	12,3	<b>16,1</b>	<b>8,2</b>	12,4	<b>17,8</b>	24,8	<b>33,0</b>
Dp Heating (E)	kPa	<b>2,6</b>	4,7	<b>7,1</b>	9,9	<b>13,6</b>	<b>3,1</b>	4,9	<b>7,3</b>	10,2	<b>13,7</b>	<b>6,6</b>	10,3	<b>15,1</b>	21,4	<b>29,1</b>
Fan (E)	W	<b>7,0</b>	8,8	<b>11,0</b>	14,6	<b>21,0</b>	<b>6,0</b>	9,0	<b>12,0</b>	17,0	<b>25,0</b>	<b>7,0</b>	10,0	<b>15,0</b>	22,0	<b>32,0</b>
Sound power (E)	dB(A)	<b>30</b>	36	<b>41</b>	47	<b>51</b>	<b>30</b>	36	<b>42</b>	47	<b>51</b>	<b>33</b>	38	<b>44</b>	49	<b>54</b>
Sound pressure (*)	dB(A)	<b>21</b>	27	<b>32</b>	38	<b>42</b>	<b>21</b>	27	<b>33</b>	38	<b>42</b>	<b>24</b>	29	<b>35</b>	40	<b>45</b>
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	<b>0,81</b>	1,04	<b>1,23</b>	1,42	<b>1,63</b>	<b>1,47</b>	1,79	<b>2,11</b>	2,42	<b>2,74</b>	<b>2,00</b>	2,40	<b>2,80</b>	3,24	<b>3,68</b>
	Dp Heat. (E) kPa	<b>1,3</b>	1,9	<b>2,6</b>	3,4	<b>4,3</b>	<b>4,5</b>	6,4	<b>8,5</b>	10,9	<b>13,6</b>	<b>1,5</b>	2,1	<b>2,8</b>	3,6	<b>4,5</b>

Model	CRC-ECM 74					CRC-ECM 94					
	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	
Inverter Power (V)											
Speed	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	
Air flow	m <sup>3</sup> /h	<b>380</b>	475	<b>585</b>	735	<b>875</b>	<b>575</b>	755	<b>910</b>	1145	<b>1365</b>
Cooling total emission (E)	kW	<b>2,61</b>	3,20	<b>3,82</b>	4,61	<b>5,30</b>	<b>3,59</b>	4,49	<b>5,21</b>	6,18	<b>7,04</b>
Cooling sensible emission (E)	kW	<b>1,90</b>	2,34	<b>2,82</b>	3,44	<b>3,99</b>	<b>2,69</b>	3,40	<b>3,99</b>	4,81	<b>5,53</b>
Heating (E)	kW	<b>2,57</b>	3,17	<b>3,84</b>	4,66	<b>5,43</b>	<b>3,76</b>	4,81	<b>5,63</b>	6,84	<b>7,93</b>
Heating - Water 70-60 °C	kW	<b>5,16</b>	6,38	<b>7,73</b>	9,39	<b>10,93</b>	<b>7,58</b>	9,69	<b>11,37</b>	13,82	<b>16,03</b>
Dp Cooling (E)	kPa	<b>7,3</b>	10,5	<b>14,3</b>	20,0	<b>25,6</b>	<b>6,3</b>	9,3	<b>12,1</b>	16,4	<b>20,8</b>
Dp Heating (E)	kPa	<b>5,9</b>	8,6	<b>12,0</b>	16,9	<b>22,0</b>	<b>5,6</b>	8,7	<b>11,4</b>	16,1	<b>20,9</b>
Fan (E)	W	<b>9,0</b>	13,0	<b>18,5</b>	28,5	<b>41,0</b>	<b>16,0</b>	25,0	<b>41,0</b>	65,0	<b>99,0</b>
Sound power (E)	dB(A)	<b>37</b>	43	<b>48</b>	53	<b>57</b>	<b>44</b>	50	<b>55</b>	60	<b>64</b>
Sound pressure (*)	dB(A)	<b>28</b>	34	<b>39</b>	44	<b>48</b>	<b>35</b>	41	<b>46</b>	51	<b>55</b>
1 row heating additional coil (Water 70/60 °C)	Heating (E) kW	<b>2,65</b>	3,10	<b>3,56</b>	4,13	<b>4,63</b>	<b>3,40</b>	4,08	<b>4,62</b>	5,35	<b>5,98</b>
	Dp Heat. (E) kPa	<b>2,9</b>	3,9	<b>4,9</b>	6,4	<b>7,8</b>	<b>4,6</b>	6,3	<b>7,8</b>	10,1	<b>12,3</b>

(E) = EUROVENT certified performance.

(\*) = The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m<sup>3</sup> room and a reverberation time of 0.5 sec.

## Electronic controls included

MV-MVB model	
<b>CB-T-ECM</b>	Continuous fan speed control with electronic thermostat and summer/winter switch
<b>CB-T-ECM-IAQ</b>	Continuous fan speed control with electronic thermostat and summer/winter switch (version with electrostatic filter)
<b>CB-Touch-M</b>	Automatic speed touch control, fitted on the unit, with electronic thermostat and seasonal/ventilation mode selection (to be used with UP-Touch-M only)
<b>CB-Touch-S</b>	Automatic speed touch control, not fitted on the unit, with electronic thermostat and seasonal/ventilation mode selection (to be used with UP-Touch-S only)
<b>UP-Touch-M</b>	Power unit for CB-Touch-M control, fitted on the unit
<b>UP-Touch-S</b>	Power unit for CB-Touch-S control, not fitted on the unit



## Electronic wall controls

MV, MO-MVB and IV-IO models	
<b>WM-AU</b>	Automatic speed control with electronic thermostat and summer/winter switch (to be used with UPM-AU or UP-AU only)
<b>T-MB2</b>	Wall control with LCD color display and WiFi (to be used with UPM-AU or UP-AU only)
<b>WM-503-AC-EC</b>	Automatic speed control with electronic thermostat to be mounted in the 503 box (to be used with UP-503-AC-EC only)
<b>WM-S-ECM</b>	Continuous fan speed control with electronic thermostat, summer/winter switch and LCD display
<b>UPM-AU</b>	UP-AU power unit for WM-AU and T-MB2 remote controls, fitted on the unit
<b>UP-AU</b>	UP-AU power unit for WM-AU and T-MB2 remote controls, not fitted on the unit
<b>UP-503-AC-EC</b>	UP-503-AC-EC power unit for WM-503-AC-EC remote control, not fitted on the unit

## Electronic controls for MB boards

MV, MO-MVB and IV-IO models	
<b>MB-ECM-M</b>	MB electronic board fitted on the unit
<b>MB-ECM-S</b>	MB electronic board supplied with separate packaging
<b>T-MB2</b>	Wall control with LCD color display and WiFi (to be used with MB board only)
<b>T-MB-M</b>	Control fitted on the unit, for MV/MVB models with left connections (available with right connections, to be used with MB board only)
<b>T-MB-S</b>	Control supplied with separate packaging, for MV/MVB models with left connections (available with right connections, to be used with MB board only)
<b>RS-RT03</b>	RT03 infra-red remote control with receiver supplied with separate packaging (to be used with MB board only)
<b>RT03</b>	RT03 infra-red remote control supplied with separate packaging (to be used with MB board only)
<b>RS</b>	Receiver for RT03 infra-red remote control supplied with separate packaging (to be used with MB board only)
<b>PSM-DI</b>	PSM-DI multifunction control panel (to be used with MB board only)
<b>T-DI</b>	T-DI touch screen multifunction control panel (to be used with MB board only)
<b>SabWeb</b>	Web gateway for Sabiana Cloud (to be used with MB board only)

Sabianet management system for a network of fan coils	
<b>Sabianet</b>	Hardware/software supervisory system (to be used with MB board only)
<b>Router-S</b>	Router for Sabianet (default) or for BMS systems not provided by Sabiana
<b>SIOS</b>	Relay output board for Sabianet

NOTE: for more information about Controls and for full list of main Accessories, please see the dedicated pages.

## Controls for KNX systems

KNX systems	
<b>WM-KNX</b>	Wall control with electronic thermostat and summer/winter switch (to be used with UP-KNX and PL mounting plate only)
<b>UP-KNX</b>	UP-KNX power unit supplied with separate packaging
<b>PL-503-B</b>	Mounting plate for rectangular box
<b>PL-QUA-B</b>	Mounting plate for rectangular box

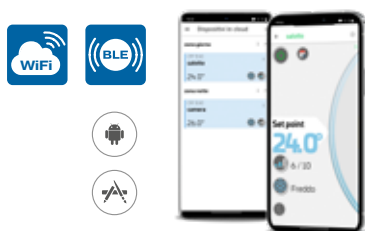
### CB-T-ECM control



### T-MB2 wall control with LCD color display and WiFi



### Digital Touch control



Digital touch control manageable via Wi-Fi and Bluetooth® with the APP available into the Android™ and IOS® version Interfaced with Modbus e KNX home automation systems



## Accessories



### Kit Breeze accessory

accessory available also for CRC-ECM (see CRC dedicated page)



### IAQ accessory

Crystall accessory available also for CRC-ECM (see CRC dedicated page)

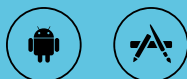


A company of Arbonia Group  
**ARBONIA** ▲

Follow us



Sabiana app



---

**SABIANA SpA**

Società a socio unico

Via Piave 53 - 20011 Corbetta (MI) Italia

T. +39 02 97203 1 r.a. • F. +39 02 9777282

info@sabiana.it

**www.sabiana.it**