



# Carisma Coanda and Coanda ECM

One Way Cassette Fan Coil Unit

TECHNICAL LEAFLET

# Carisma Coanda

One Way Cassette Fan Coil Unit with Asynchronous Motor



The **Carisma Coanda** one way Cassette fan coil units are available in **3 sizes**.

Thanks to the particular air handling section, the units generate an airflow **with a “coanda” effect**.

The unit is suitable for installation in a suspended ceiling.

Air intake is from the bottom while the air supply is parallel to the ceiling, through practical and functional intake and outlet grids.

The “coanda” effect creates **excellent circulation of the air** inside the room.



Every unit can be supplied with 1 coil (2 pipe system) and possibly an electric heating element, or with 2 coils (4 pipe system) with one or two rows heating coil, for low temperature hot water.

**Fresh air may be mixed** with room air.

A **condensate pump** may also be supplied as an accessory.

In addition to the conventional temperature and speed control systems, there is also the possibility of **automatic** speed selection and to control operation of each unit through a single remote control with central supervisor software installed on a PC (**called Sabianet**).



**Casing:** made from 1 mm galvanized steel insulated with 6 mm polyolefin (PO) foam (B-s2-d0 EN 13501-1).

**Diffuser with intake grid:** in pre-painted metal sheet in RAL 9003 colour with intake grid that can be opened for inspection and maintenance of the air filter.

**Air filter:** polypropylene cellular fabric regenerating filter.

**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.

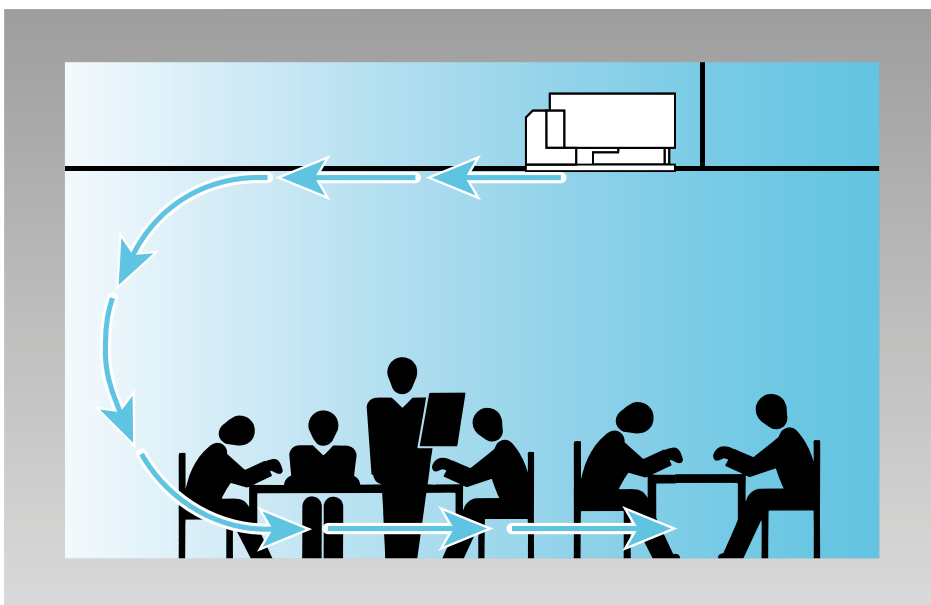
**The connection side cannot be changed on site.**

**Condensate collection tray:** made from plastic with an "L"-shape fitted on the inner casing; 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

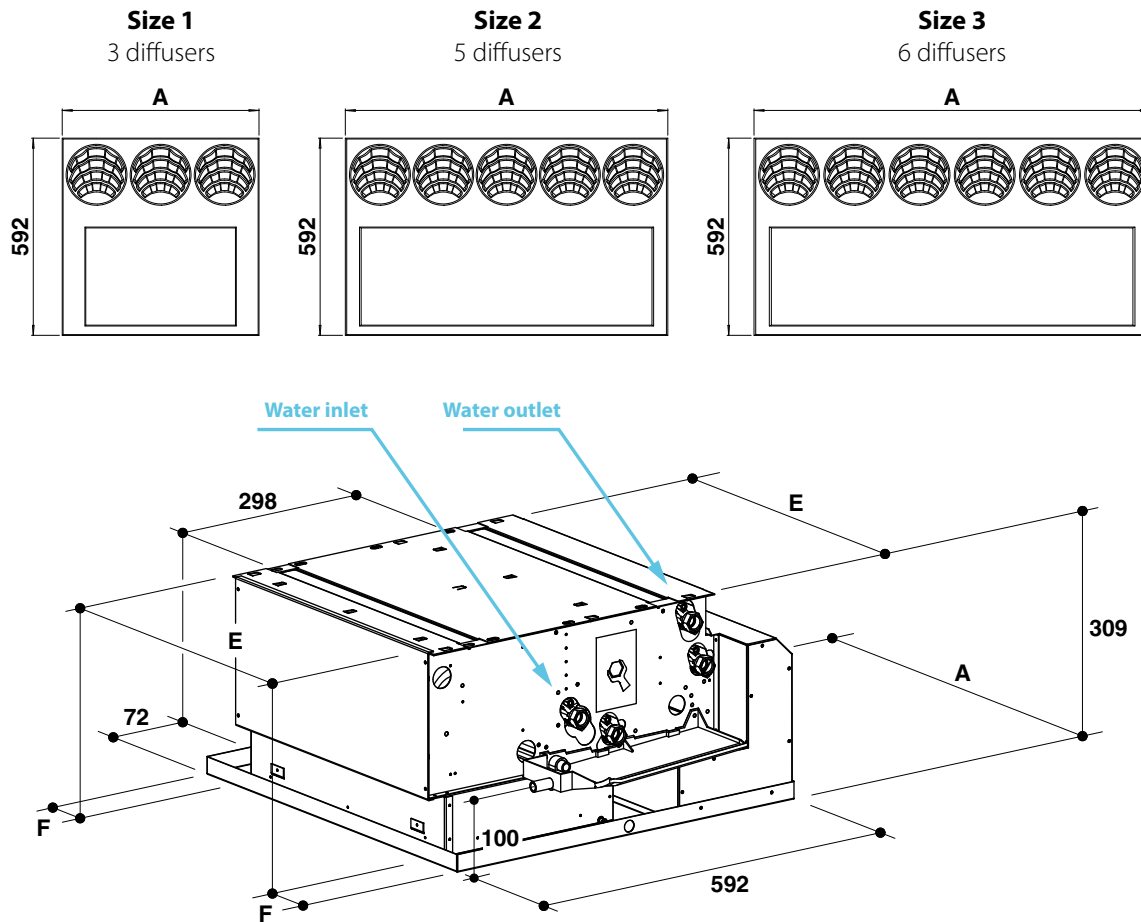
**Round diffuser:** the units are supplied with round diffusers suitably designed to generate an airflow with "coanda" effect.

**The direction of diffuser air flow can be adjusted on site.**



The "coanda" effect creates excellent circulation of the air inside the room.

## DIMENSIONS, WEIGHT, WATER CONTENT



### Dimension (mm)

Model	1	2	3
<b>A</b>	592	970	1192
<b>E</b>	454	884	1099
<b>F</b>	78,0	43,0	46,5
<b>W</b>	750	1130	1350

### Weight (kg)

Model		Weight with packaging			Weight without packaging		
		1	2	3	1	2	3
ROWS	<b>3</b>	18	34	44	16	33	42
	<b>3+1</b>	20	40	51	19	38	48
	<b>3+2</b>	23	46	58	22	43	54
	<b>4</b>	20	37	48	18	35	45
	<b>4+1</b>	23	42	54	21	40	51

### Water content (litres)

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

## Units with 3 and 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	CCN 13						CCN 23						CCN 33						
	1 (E)	2 (E)	3	4	5 (E)	6	1 (E)	2 (E)	3	4 (E)	5	6	1 (E)	2	3 (E)	4 (E)	5	6	
Speed	MIN	MED			MAX		MIN	MED		MAX			MIN		MED	MAX			
Air flow	m <sup>3</sup> /h	140	180	220	245	280	305	200	240	305	380	470	560	290	360	440	540	620	680
Cooling total emission (E)	kW	0,86	1,04	1,23	1,32	1,45	1,54	1,35	1,59	1,94	2,33	2,75	3,15	1,94	2,34	2,80	3,28	3,68	3,97
Cooling sensible emission (E)	kW	0,64	0,79	0,95	1,02	1,13	1,21	0,98	1,16	1,43	1,73	2,07	2,40	1,41	1,71	2,07	2,45	2,76	2,99
Heating (E)	kW	0,91	1,12	1,34	1,45	1,62	1,75	1,33	1,59	1,96	2,38	2,86	3,29	1,91	2,32	2,80	3,34	3,77	4,07
Heating - Water 70-60 °C	kW	1,84	2,26	2,71	2,94	3,29	3,54	2,68	3,20	3,95	4,79	5,77	6,64	3,85	4,67	5,65	6,73	7,61	8,20
Dp Cooling (E)	kPa	2,9	4,0	5,4	6,1	7,7	8,6	2,9	3,9	5,5	7,6	10,3	13,1	7,7	10,6	14,5	19,4	23,5	27,0
Dp Heating (E)	kPa	2,8	4,0	5,5	6,3	7,5	8,5	2,3	3,1	4,5	6,4	8,8	11,3	5,1	7,1	9,9	13,5	16,8	19,1
Fan (E)	W	16	22	32	38	49	66	24	27	34	44	57	71	27	33	42	59	72	84
Sound power (E)	dB(A)	35	41	46	49	52	55	33	36	42	48	54	57	35	41	46	52	55	57
Sound pressure (*)	dB(A)	26	32	37	40	43	46	24	27	33	39	45	48	26	32	37	43	46	48

Model	CCN 14						CCN 24						CCN 34						
	1 (E)	2 (E)	3	4	5 (E)	6	1 (E)	2 (E)	3	4 (E)	5	6	1	2 (E)	3	4 (E)	5 (E)	6	
Speed	MIN	MED			MAX		MIN	MED		MAX			MIN		MED	MAX			
Air flow	m <sup>3</sup> /h	140	180	220	245	280	305	200	240	305	380	470	560	290	360	440	540	620	680
Cooling total emission (E)	kW	0,95	1,17	1,40	1,52	1,69	1,80	1,42	1,69	2,09	2,53	3,03	3,51	2,02	2,46	2,96	3,50	3,95	4,28
Cooling sensible emission (E)	kW	0,69	0,86	1,04	1,13	1,26	1,36	1,02	1,21	1,51	1,84	2,22	2,59	1,45	1,78	2,15	2,57	2,91	3,17
Heating (E)	kW	0,95	1,18	1,43	1,56	1,74	1,88	1,41	1,69	2,12	2,60	3,17	3,71	1,97	2,40	2,92	3,40	3,97	4,33
Heating - Water 70-60 °C	kW	1,92	2,37	2,89	3,14	3,52	3,80	2,82	3,40	4,25	5,22	6,37	7,46	3,96	4,83	5,87	7,04	8,00	8,72
Dp Cooling (E)	kPa	4,7	6,6	9,2	10,6	12,9	14,6	4,4	6,0	8,6	12,1	16,8	21,7	4,7	6,7	9,3	12,6	15,5	17,9
Dp Heating (E)	kPa	3,7	5,4	7,7	8,9	10,8	12,4	3,5	4,9	7,2	10,4	14,7	19,4	3,7	5,3	7,4	10,2	12,7	14,8
Fan (E)	W	16	22	32	38	49	66	24	27	34	44	57	71	27	33	42	59	72	84
Sound power (E)	dB(A)	35	41	46	49	52	55	33	36	42	48	54	57	35	41	46	52	55	57
Sound pressure (*)	dB(A)	26	32	37	40	43	46	24	27	33	39	45	48	26	32	37	43	46	48

(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 1 row additional coil

**4 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:** +65 °C E.W.T. +55 °C L.W.T.

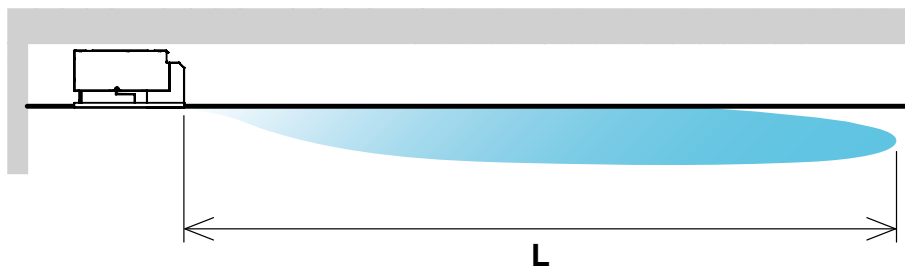
Model	CCN 13+1						CCN 23+1						CCN 33+1						
	1 (E)	2 (E)	3	4	5 (E)	6	1 (E)	2 (E)	3	4 (E)	5	6	1 (E)	2	3 (E)	4 (E)	5	6	
Speed	MIN	MED			MAX		MIN	MED		MAX			MIN		MED	MAX			
Air flow	m <sup>3</sup> /h	<b>140</b>	<b>180</b>	220	245	<b>280</b>	305	<b>200</b>	<b>240</b>	305	<b>380</b>	470	560	<b>290</b>	360	<b>440</b>	<b>540</b>	620	680
Cooling total emission (E)	kW	<b>0,86</b>	<b>1,04</b>	1,23	1,32	<b>1,45</b>	1,54	<b>1,35</b>	<b>1,59</b>	1,94	<b>2,33</b>	2,75	3,15	<b>1,94</b>	2,34	<b>2,80</b>	<b>3,28</b>	3,68	3,97
Cooling sensible emission (E)	kW	<b>0,64</b>	<b>0,79</b>	0,95	1,02	<b>1,13</b>	1,21	<b>0,98</b>	<b>1,16</b>	1,43	<b>1,73</b>	2,07	2,40	<b>1,41</b>	1,71	<b>2,07</b>	<b>2,45</b>	2,76	2,99
Heating (E)	kW	<b>0,81</b>	<b>0,95</b>	1,10	1,17	<b>1,28</b>	1,36	<b>1,31</b>	<b>1,50</b>	1,77	<b>2,06</b>	2,39	2,69	<b>1,86</b>	2,17	<b>2,52</b>	<b>2,89</b>	3,19	3,41
Dp Cooling (E)	kPa	<b>3,6</b>	<b>5,0</b>	6,7	7,7	<b>9,1</b>	10,3	<b>2,9</b>	<b>3,9</b>	5,5	<b>7,6</b>	10,3	13,1	<b>7,7</b>	10,6	<b>14,5</b>	<b>19,4</b>	23,5	27,0
Dp Heating (E)	kPa	<b>1,3</b>	<b>1,7</b>	2,2	2,5	<b>2,9</b>	3,2	<b>0,7</b>	<b>0,9</b>	1,3	<b>1,6</b>	2,1	2,6	<b>1,6</b>	2,1	<b>2,7</b>	<b>3,5</b>	4,1	4,7
Fan (E)	W	<b>16</b>	<b>22</b>	32	38	<b>49</b>	66	<b>24</b>	<b>27</b>	34	<b>44</b>	57	71	<b>27</b>	33	<b>42</b>	<b>59</b>	72	84
Sound power (E)	dB(A)	<b>35</b>	<b>41</b>	46	49	<b>52</b>	55	<b>33</b>	<b>36</b>	42	<b>48</b>	54	57	<b>35</b>	41	<b>46</b>	<b>52</b>	55	57
Sound pressure (*)	dB(A)	<b>26</b>	<b>32</b>	37	40	<b>43</b>	46	<b>24</b>	<b>27</b>	33	<b>39</b>	45	48	<b>26</b>	32	<b>37</b>	<b>43</b>	46	48

(E) = EUROVENT certified performance.

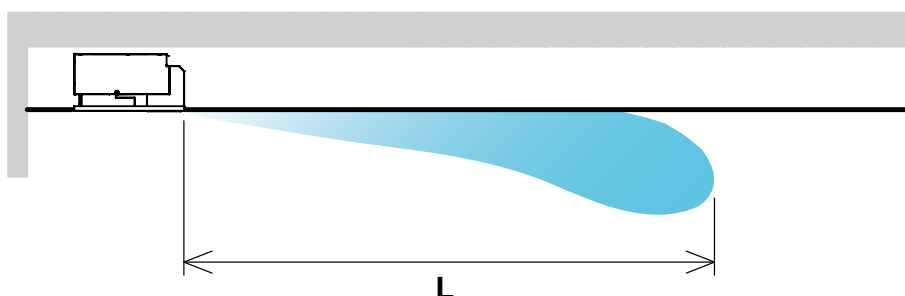
MIN-MED-MAX = Standard connected speeds.

(\*) = 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.

### C1 heating



### C2 cooling



Model	CCN 1	CCN 2	CCN 3
Installation height (m)	<b>Min.</b>	2,6	2,6
	<b>Max.</b>	3,2	3,2

Model	CCN 1						CCN 2						CCN 3						
Speed	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	
Air throw <b>L</b> (m)	<b>C1</b>	3,6	4,5	5,8	6,3	6,8	7,2	4	5	6,1	7	8	9	4,5	5,2	6,3	7,5	8,8	9,5
	<b>C2</b>	3	3,6	4,6	5	5,4	5,7	3,2	4	4,8	5,6	6,4	7,2	3,6	4,1	5	6	7	7,6



## Electronic wall controls

<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>TS2</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-C</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>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>	Sabianet (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.

# Carisma Coanda-ECM

One Way Cassette Fan Coil Unit with EC Brushless Electronic Motor and Inverter Board



The **Carisma Coanda-ECM** one way Cassette fan coil units are available in **3 sizes**.

Thanks to the particular air handling section, the units generate an airflow **with a “coanda” effect**.

The variable flow rate enhances the product’s main virtues: **excellent air circulation**, with a high degree of comfort, especially during the summer months.



Every unit is supplied with an electronic motor with extremely low energy consumption, **brushless** and **sensorless** type, controlled by an inverter board.

By continuously varying the air flow, the ambient temperature can be more precisely monitored and regulated, **saving over 50%** of the electricity used and reducing the average perceived noise level.

Every unit can be supplied with 1 coil (2 pipe system) and possibly an electric heating element, or with 2 coils (4 pipe system) with one or two rows heating coil, for low temperature hot water.

**Fresh air may be mixed** with room air.

A **condensate pump** may also be supplied as an accessory.

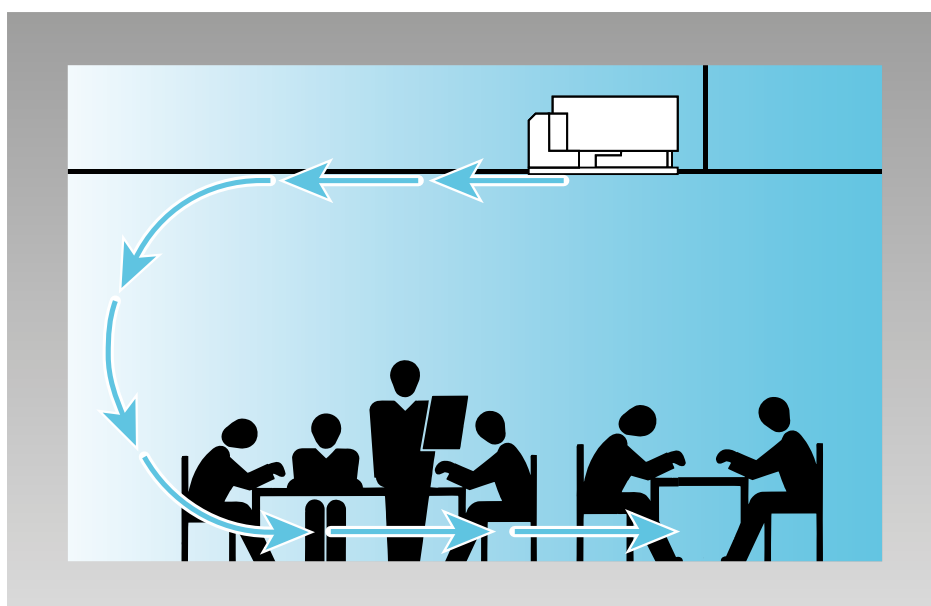
In addition to the conventional temperature and speed control systems, there is also the possibility to **control operation** of each unit through a single remote control with central supervisor software installed on a PC (**called Sabianet**).

**For the technical characteristics of the various components refer to Carisma COANDA 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.

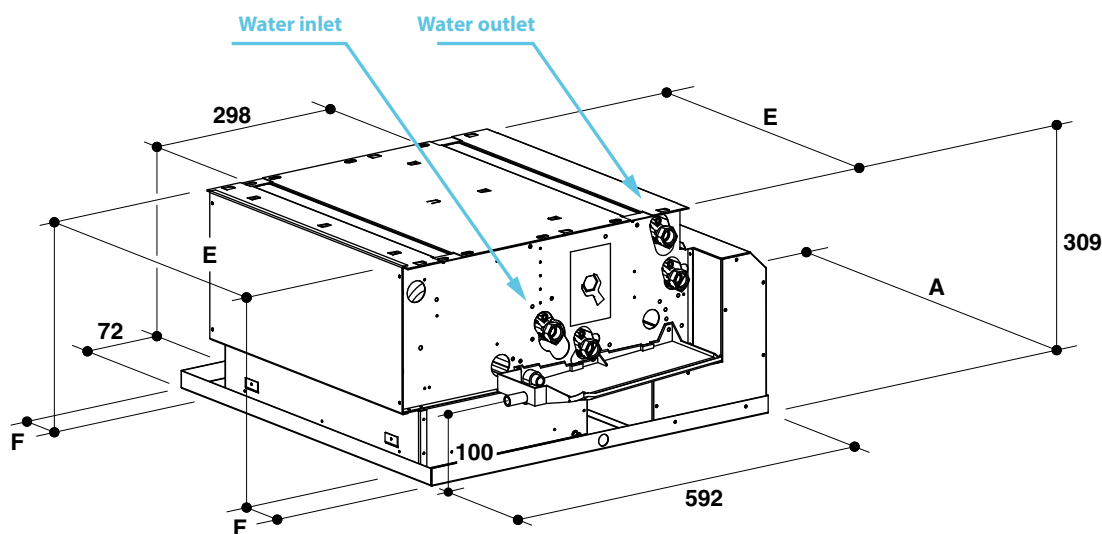
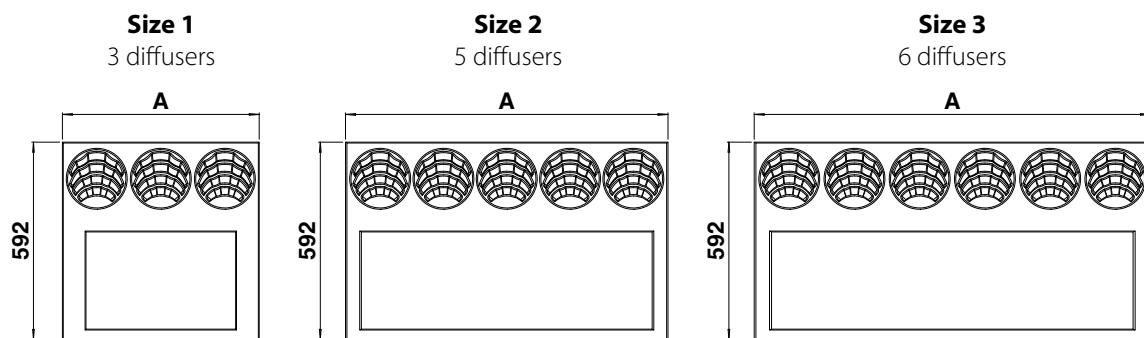
The inverter board that controls the motor operation is powered by 230 Volt, single-phase and, with a **switching system**, it generates a three-phase frequency modulated, wave form power supply.

The electric power supply required for the machine is therefore single-phase with voltage of **230 - 240 V** and frequency of **50 - 60 Hz**.



The "coanda" effect creates excellent circulation of the air inside the room.

# Carisma Coanda ECM | DIMENSIONS, WEIGHT, WATER CONTENT



## Dimension (mm)

Model	1	2	3
<b>A</b>	592	970	1192
<b>E</b>	454	884	1099
<b>F</b>	78,0	43,0	46,5
<b>W</b>	750	1130	1350

## Weight (kg)

Model	Weight with packaging			Weight without packaging		
	1	2	3	1	2	3
<b>3</b>	18	34	44	16	33	42
<b>3+1</b>	20	40	51	19	38	48
<b>3+2</b>	23	46	58	22	43	54
<b>4</b>	20	37	48	18	35	45
<b>4+1</b>	23	42	54	21	40	51

## Water content (litres)

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

## Units with 3 and 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	CCN-ECM 13					CCN-ECM 23					CCN-ECM 33					
	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)																
<b>Speed</b>	<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>130</b>	165	<b>205</b>	250	<b>295</b>	<b>215</b>	295	<b>370</b>	450	<b>540</b>	<b>275</b>	345	<b>430</b>	525	<b>620</b>
Cooling total emission (E)	kW	<b>0,81</b>	0,99	<b>1,17</b>	1,35	<b>1,53</b>	<b>1,45</b>	1,90	<b>2,29</b>	2,71	<b>3,12</b>	<b>1,86</b>	2,30	<b>2,76</b>	3,25	<b>3,71</b>
Cooling sensible emission (E)	kW	<b>0,61</b>	0,75	<b>0,90</b>	1,05	<b>1,21</b>	<b>1,06</b>	1,41	<b>1,71</b>	2,05	<b>2,37</b>	<b>1,36</b>	1,69	<b>2,04</b>	2,42	<b>2,79</b>
Heating (E)	kW	<b>0,85</b>	1,05	<b>1,26</b>	1,47	<b>1,70</b>	<b>1,43</b>	1,90	<b>2,32</b>	2,78	<b>3,21</b>	<b>1,82</b>	2,26	<b>2,74</b>	3,27	<b>3,77</b>
Heating - Water 70-60 °C	kW	<b>1,72</b>	2,12	<b>2,54</b>	2,98	<b>3,44</b>	<b>2,88</b>	3,82	<b>4,67</b>	5,60	<b>6,49</b>	<b>3,65</b>	4,54	<b>5,53</b>	6,59	<b>7,61</b>
Dp Cooling (E)	kPa	<b>2,1</b>	3,0	<b>4,0</b>	5,2	<b>6,5</b>	<b>3,2</b>	5,2	<b>7,3</b>	9,8	<b>12,6</b>	<b>5,8</b>	8,4	<b>11,7</b>	15,7	<b>19,8</b>
Dp Heating (E)	kPa	<b>1,9</b>	2,7	<b>3,7</b>	4,9	<b>6,4</b>	<b>2,6</b>	4,3	<b>6,1</b>	8,4	<b>10,9</b>	<b>4,6</b>	6,8	<b>9,6</b>	13,0	<b>16,8</b>
Fan (E)	W	<b>8</b>	11	<b>14</b>	21	<b>29</b>	<b>8</b>	11	<b>16</b>	24	<b>37</b>	<b>10</b>	13	<b>19</b>	29	<b>42</b>
Sound power (E)	dB(A)	<b>35</b>	41	<b>46</b>	51	<b>55</b>	<b>34</b>	40	<b>46</b>	52	<b>56</b>	<b>36</b>	42	<b>48</b>	54	<b>58</b>
Sound pressure (*)	dB(A)	<b>26</b>	32	<b>37</b>	42	<b>46</b>	<b>25</b>	31	<b>37</b>	43	<b>47</b>	<b>27</b>	33	<b>39</b>	45	<b>49</b>

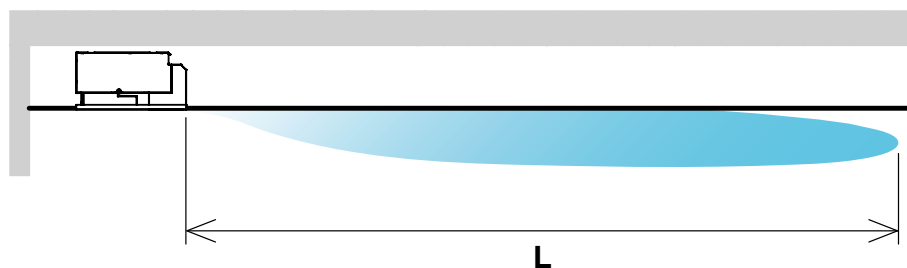
Model	CCN-ECM 14					CCN-ECM 24					CCN-ECM 34					
	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	1 (E)	3	5 (E)	7,5	10 (E)	
Inverter Power (V)																
<b>Speed</b>	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	<b>MIN</b>		<b>MED</b>		<b>MAX</b>	
Air flow	m <sup>3</sup> /h	<b>130</b>	165	<b>205</b>	250	<b>295</b>	<b>215</b>	295	<b>370</b>	450	<b>540</b>	<b>275</b>	345	<b>430</b>	525	<b>620</b>
Cooling total emission (E)	kW	<b>0,90</b>	1,11	<b>1,33</b>	1,55	<b>1,78</b>	<b>1,54</b>	2,04	<b>2,49</b>	2,98	<b>3,46</b>	<b>1,94</b>	2,41	<b>2,92</b>	3,46	<b>3,98</b>
Cooling sensible emission (E)	kW	<b>0,66</b>	0,81	<b>0,98</b>	1,16	<b>1,35</b>	<b>1,11</b>	1,48	<b>1,82</b>	2,19	<b>2,56</b>	<b>1,40</b>	1,75	<b>2,13</b>	2,54	<b>2,94</b>
Heating (E)	kW	<b>0,89</b>	1,10	<b>1,34</b>	1,58	<b>1,85</b>	<b>1,52</b>	2,05	<b>2,53</b>	3,07	<b>3,62</b>	<b>1,87</b>	2,34	<b>2,85</b>	3,42	<b>3,97</b>
Heating - Water 70-60 °C	kW	<b>1,78</b>	2,22	<b>2,68</b>	3,19	<b>3,69</b>	<b>3,04</b>	4,11	<b>5,08</b>	6,17	<b>7,27</b>	<b>3,75</b>	4,70	<b>5,74</b>	6,89	<b>8,00</b>
Dp Cooling (E)	kPa	<b>4,1</b>	5,9	<b>8,1</b>	10,9	<b>13,9</b>	<b>5,0</b>	8,2	<b>11,6</b>	15,9	<b>20,8</b>	<b>4,3</b>	6,4	<b>8,9</b>	12,1	<b>15,5</b>
Dp Heating (E)	kPa	<b>3,3</b>	4,8	<b>6,7</b>	9,2	<b>11,8</b>	<b>4,0</b>	6,8	<b>9,9</b>	13,9	<b>18,5</b>	<b>3,4</b>	5,0	<b>7,1</b>	9,8	<b>12,7</b>
Fan (E)	W	<b>8</b>	11	<b>14</b>	21	<b>29</b>	<b>8</b>	11	<b>16</b>	24	<b>37</b>	<b>10</b>	13	<b>19</b>	29	<b>42</b>
Sound power (E)	dB(A)	<b>35</b>	41	<b>46</b>	51	<b>55</b>	<b>34</b>	40	<b>46</b>	52	<b>56</b>	<b>36</b>	42	<b>48</b>	54	<b>58</b>
Sound pressure (*)	dB(A)	<b>26</b>	32	<b>37</b>	42	<b>46</b>	<b>25</b>	31	<b>37</b>	43	<b>47</b>	<b>27</b>	33	<b>39</b>	45	<b>49</b>

(E) = EUROVENT certified performance.

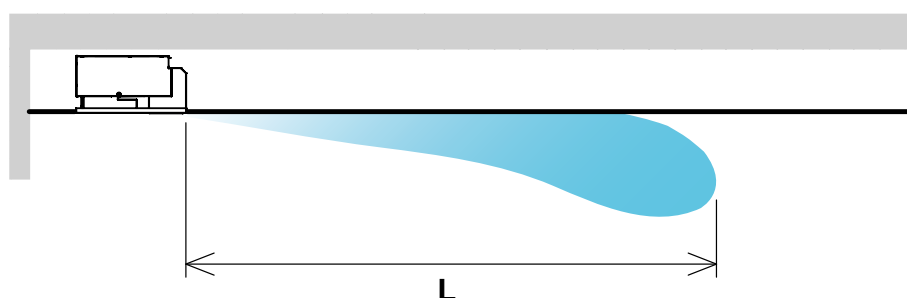
(\*) = The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m<sup>3</sup> room and a reverberation time of 0.5 sec.

# Carisma Coanda ECM | INSTALLATION HEIGHTS AND AIR THROW OTHER AVAILABLE VERSIONS

## C1 heating



## C2 cooling



Model		CCN-ECM 1	CCN-ECM 2	CCN-ECM 3
Installation height (m)	<b>Min.</b>	2,6	2,6	2,6
	<b>Max.</b>	3,2	3,2	3,5

Model	CCN-ECM 1						CCN-ECM 2						CCN-ECM 3						
Speed	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	
Air throw <b>L</b> (m)	<b>C1</b>	3,6	4,5	5,8	6,3	6,8	7,2	4	5	6,1	7	8	9	4,5	5,2	6,3	7,5	8,8	9,5
	<b>C2</b>	3	3,6	4,6	5	5,4	5,7	3,2	4	4,8	5,6	6,4	7,2	3,6	4,1	5	6	7	7,6

## Electronic wall controls

<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 liquid crystal 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

<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>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 system

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.

# Carisma Coanda / Coanda ECM | CCN-H AND CCN-ECM-H VARIANTS

## Main components

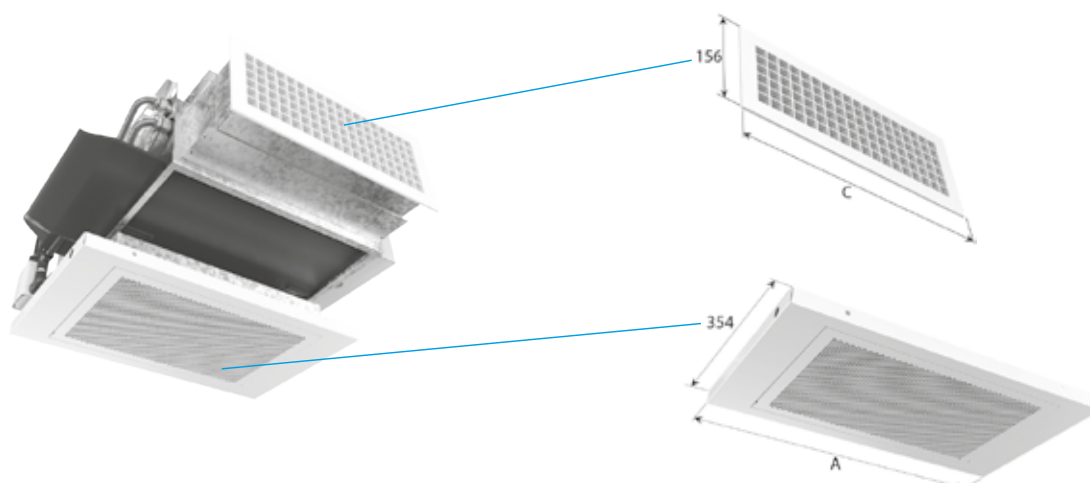
The variants CCN-H / CCN-ECM-H are available with low air intake grid and frontal air outlet grid fitted on a plenum. The emissions of these versions are the same as the corresponding Coanda standard versions. It is possible to extract the air from an indoor ambient and enter it into another ambient.



The CCN-H and CCN-ECM-H versions reproduce the entire range of the CCN / CCN-ECM versions (3 sizes with 3, 4,+1 and + 2 row coils) and they can be used with all the accessories offered in the standard versions.

The -H version includes:

- Basic unit of the standard version
- In pre-painted metal sheet in RAL 9003 colour with intake grille
- Frontal telescopic plenum made of galvanized steel 1,0 mm thick extensible from 90 to 150 mm
- Double louvre frontal air outlet grid made of anodized aluminium, to be fitted directly on the telescopic plenum.

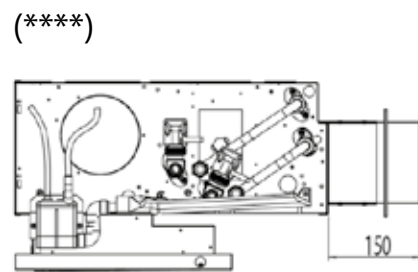
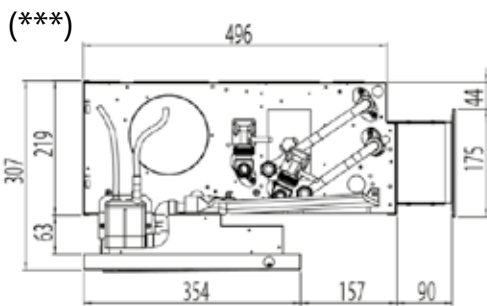
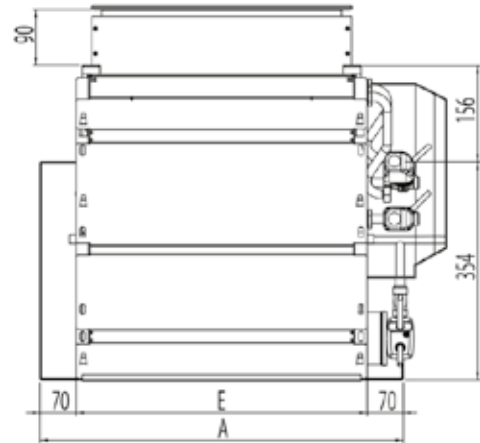
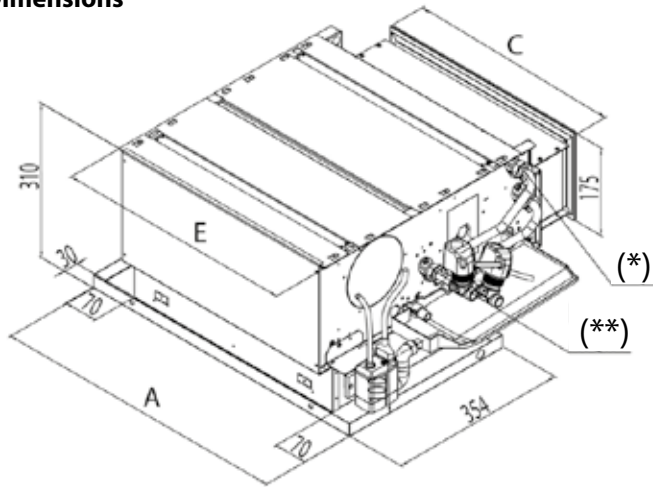


Model		1	2	3
A	mm	592	970	1192
E	mm	454	884	1099
C	mm	425	825	1025



## H Variant Dimension and Weight

### Dimensions



- (\*) = Water outlet
- (\*\*) = Water inlet
- (\*\*\*) = Min. plenum extension
- (\*\*\*\*) = Max. plenum extension

## Weight

### Weights with packaging

Model		1	2	3
3 rows	kg	13	29	39
3+1 rows	kg	15	35	46
3+2 rows	kg	18	41	53
4 rows	kg	15	32	43
4+1 rows	kg	18	37	49

### Weights without packaging

Model		1	2	3
3 rows	kg	11	28	37
3+1 rows	kg	14	33	43
3+2 rows	kg	17	38	49
4 rows	kg	13	30	40
4+1 rows	kg	16	35	46

The packaging dimensions and the water content are the same as those of the standard version.



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Výrobce si vyhrazuje právo měnit parametry svých výrobků bez předchozího upozornění.  
Aktualizované vydání naleznete na internetové adrese [www.hydronix.cz](http://www.hydronix.cz)



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