

The Ultra Quiet Fan Coil



Fan Coil Units
Carisma
CRC
CRC-ECM

TECHNICAL MANUAL



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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 °C E.W.T.	+12 °C L.W.T.
• air temperature	+27 °C d.b.	+19 °C w.b.

Heating emission (2 pipe units) at the following conditions:

• water temperature	+45 °C E.W.T.	+40 °C L.W.T.
• air temperature	+20 °C	
Static pressure	Fan absorption	

Sensible cooling emission at the following conditions:

• water temperature	+7 °C E.W.T.	+12 °C L.W.T.
• air temperature	+27 °C d.b.	+19 °C w.b.

Heating emission (4 pipe units) at the following conditions:

• water temperature	+65 °C E.W.T.	+55 °C L.W.T.
• air temperature	+20 °C	
Water side pressure drop	Sound power	

INTRODUCTION

In line with innovative trends and modern industrial design, the Carisma CRC / CRC-ECM fan coil range meets today's demanding requirements of performance, size, acoustics, low energy, ease of installation and maintenance.

The models with centrifugal fan are available in five different versions, for wall and ceiling installation, with casing and concealed. All fan coils of the range take part to the Eurovent program of fan coil performance certification.

All fan coils with centrifugal fans are equipped with electric motors which reduce electrical consumption comparative to previous models.

New market trends have also led to an extension of the four pipe model which now has a two row LTHW coil giving improved outputs at lower flow and return temperatures.

The Carisma fan coil unit can be equipped with Crystall active electrostatic filtration (Sabiana's patent) that has the aim of obtaining a higher filtering level ($ePM1 \leq 95\%$ - $MPPS^* \geq 95\%$) of the recirculation/secondary air (according to the definition provided by Standard EN 16798.3).

In this way the fan coil unit becomes an air purifier that allows a consistent reduction of the fine particles existing in the environment, assuring total health for the occupants.

The Filtering Efficiency's performance is certified in compliance with Standard EN ISO 16890:2016.

A full range of control options is available offering greater flexibility in the installation of units, with the highest precision in monitoring and maintaining the desired comfort conditions.

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.



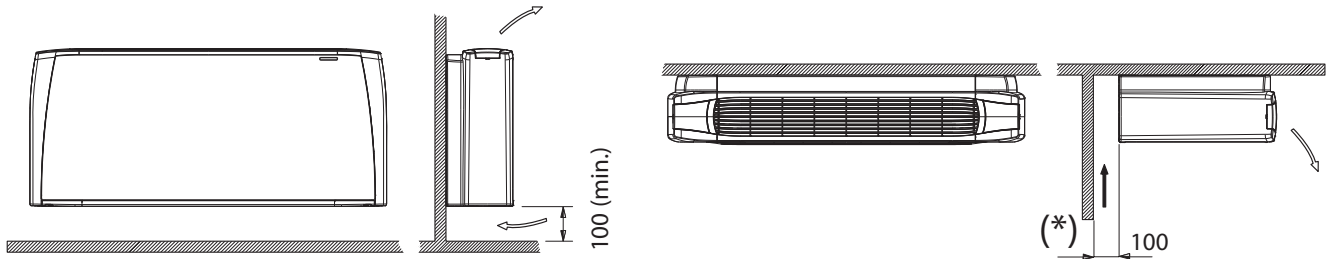
Plastic outlet grid in one single piece of ABS

Extraordinary design and strength



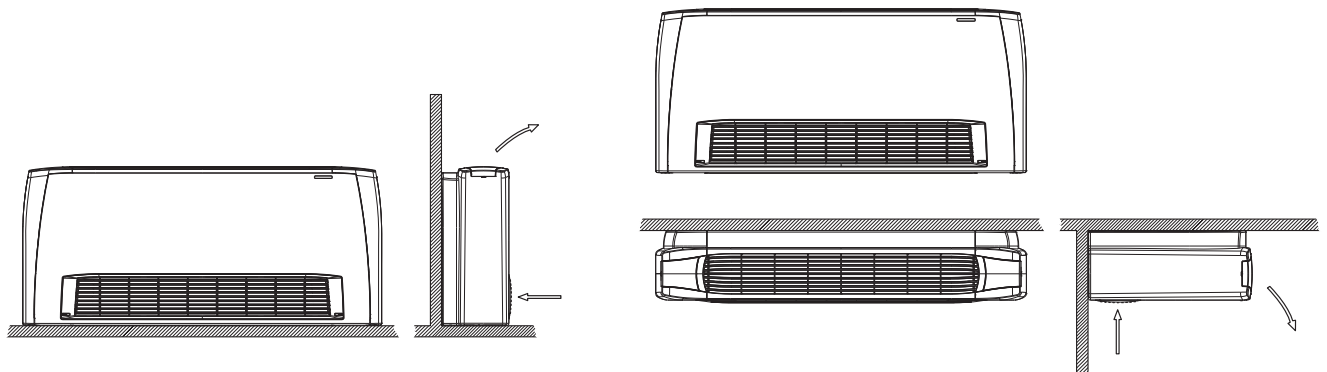
Versions

MV Vertical Casing - Wall and Ceiling Installation

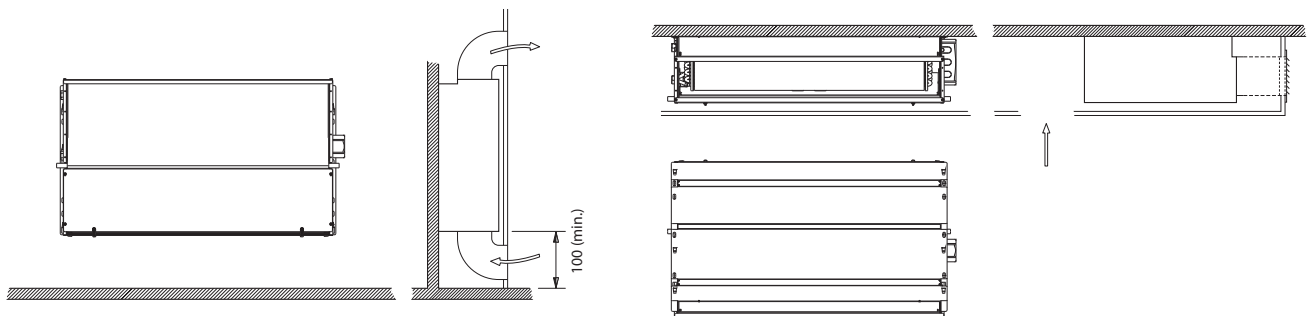


(*) the MV version can also be installed horizontally leaving behind a 100 mm gap for air intake.

MO-MVB Vertical Casing - Floor and Horizontal Installation



IV-IO - Vertical and Horizontal Concealed Installation

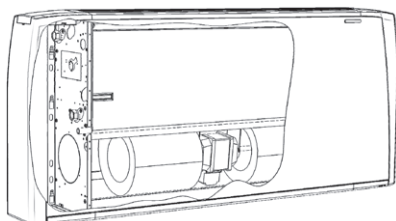


MAIN COMPONENTS

CRC range with centrifugal fan

Range includes 9 air flow rates (from 105 to 1500 m³/h) and 5 versions (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, perfect 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 (ABS) and with a galvanized, pre-painted 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)**
- Frontal panel : **RAL 9003 (white)**
- Other colours on request

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.

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 supply 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.

The speeds connected in the factory are indicated by "MIN, MED and MAX" in the following tables.

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 hydraulic connections are on the left side facing 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 the construction site during installation.

Condensate collection tray

Made of plastic (ABS UL94 HB) with a "L"-shaped plastic fitted on the inner casing.

In the MO-MVB and IV-IO versions the tray is insulated with 3 mm polyolefin (PO) foam B-s2-d0 EN 13501-1.

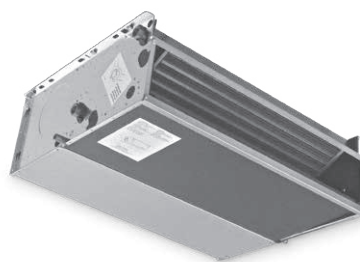
The outside diameter of the condensate discharge pipe is Ø 15 mm.

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 filter removal.

Filter presence is highlighted by a plastic front cover featuring the same colour as the top grid.



EUROVENT CERTIFICATION

3 row coil - 2 pipe units



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

MODEL		CRC 43						CRC 53						CRC 63					
Speed		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
			MIN	MED		MAX			MIN		MED		MAX	MIN		MED		MAX	
Eurovent certified performances.		-	(E)	(E)	-	(E)	-	-	(E)	-	(E)	(E)	-	(E)	-	(E)	-	(E)	-
Air flow	m ³ /h	185	265	335	400	485	570	250	315	420	495	545	650	415	505	590	680	760	830
Cooling total emission (E)	kW	1,25	1,71	2,11	2,43	2,83	3,19	1,66	2,01	2,55	2,90	3,13	3,58	2,50	2,94	3,32	3,70	4,01	4,26
Cooling sensible emission (E)	kW	0,91	1,26	1,57	1,82	2,15	2,45	1,22	1,49	1,91	2,19	2,38	2,76	1,87	2,23	2,54	2,86	3,12	3,35
Heating emission (E)	kW	1,25	1,74	2,18	2,52	2,97	3,41	1,65	2,02	2,61	3,00	3,24	3,75	2,56	3,05	3,45	3,90	4,26	4,56
Dp Cooling (E)	kPa	6,5	11,2	16,2	20,8	27,2	33,8	4,1	5,8	8,8	11,1	12,7	16,2	8,6	11,4	14,1	17,2	19,8	22,1
Dp Heating (E)	kPa	5,3	9,5	14,0	18,2	24,3	30,8	3,4	4,8	7,5	9,6	11,0	14,2	7,3	9,9	12,3	15,2	17,8	20,1
Fan (E)	W	14,0	21,0	28,0	34,0	44,0	57,0	18,0	22,0	32,0	39,0	46,0	61,0	37,0	46,0	55,0	67,0	78,0	88,0
Sound power (Lw) (E)	dB(A)	27	33	39	43	47	52	26	31	37	41	43	48	37	42	46	49	52	54
Sound pressure (Lp) ⁽¹⁾	dB(A)	18	24	30	34	38	43	17	22	28	32	34	39	28	33	37	40	43	45

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

(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.

MIN-MED-MAX = Speeds connected in the factory

4 row coil - 2 pipe units

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

MODEL		CRC 44						CRC 54						CRC 64					
Speed		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
			MIN	MED		MAX			MIN		MED		MAX	MIN		MED		MAX	
Eurovent certified performances.		-	(E)	(E)	-	(E)	-	-	(E)	-	(E)	(E)	-	(E)	-	(E)	-	(E)	-
Air flow	m ³ /h	185	265	335	400	485	570	250	315	420	495	545	650	415	505	590	680	760	830
Cooling total emission (E)	kW	1,31	1,81	2,25	2,62	3,08	3,50	1,77	2,17	2,79	3,21	3,49	4,03	2,79	3,34	3,81	4,31	4,71	5,04
Cooling sensible emission (E)	kW	0,86	1,21	1,51	1,78	2,10	2,39	1,28	1,58	2,04	2,36	2,58	3,01	2,03	2,45	2,81	3,20	3,52	3,79
Heating emission (E)	kW	1,28	1,80	2,27	2,64	3,14	3,62	1,71	2,10	2,74	3,16	3,46	4,01	2,82	3,39	3,90	4,46	4,92	5,31
Dp Cooling (E)	kPa	3,4	6,1	9,0	11,7	15,5	19,6	7,3	10,4	16,3	20,8	24,2	31,3	14,4	19,7	24,8	30,9	36,2	40,9
Dp Heating (E)	kPa	2,6	5,0	7,2	9,4	12,8	16,4	5,6	8,1	12,9	16,6	19,5	25,2	11,9	16,5	21,1	26,8	31,8	36,3
Fan (E)	W	14,0	21,0	28,0	34,0	44,0	57,0	18,0	22,0	32,0	39,0	46,0	61,0	37,0	46,0	55,0	67,0	78,0	88,0
Sound power (Lw) (E)	dB(A)	27	33	39	43	47	52	26	31	37	41	43	48	37	42	46	49	52	54
Sound pressure (Lp) ⁽¹⁾	dB(A)	18	24	30	34	38	43	17	22	28	32	34	39	28	33	37	40	43	45

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

(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.

MIN-MED-MAX = Speeds connected in the factory

3+1 row coil - 4 pipe units

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: +65 °C E.W.T. +55 °C L.W.T.



MODEL		CRC 13+1						CRC 23+1						CRC 33+1					
Speed		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
		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	105	125	150	175	195	220	145	170	220	250	295	340	185	235	270	325	385	440
Cooling total emission (E)	kW	0,57	0,66	0,75	0,84	0,91	1,00	0,90	0,99	1,23	1,35	1,53	1,70	1,27	1,55	1,76	2,04	2,35	2,61
Cooling sensible emission (E)	kW	0,45	0,53	0,60	0,69	0,75	0,83	0,68	0,76	0,95	1,06	1,21	1,36	0,92	1,13	1,30	1,51	1,76	1,97
Heating emission (E)	kW	0,55	0,62	0,69	0,77	0,83	0,91	0,83	0,91	1,09	1,19	1,33	1,47	1,19	1,40	1,56	1,76	1,99	2,18
Dp Cooling (E)	kPa	0,9	1,1	1,4	1,7	2,0	2,3	2,5	3,0	4,4	5,3	6,5	7,9	6,6	9,4	11,8	15,3	19,7	23,8
Dp Heating (E)	kPa	0,5	0,7	0,8	1,0	1,1	1,3	1,3	1,6	2,2	2,5	3,1	3,7	3,2	4,2	5,1	6,3	7,8	9,2
Fan (E)	W	16,0	19,0	21,0	25,0	29,0	33,0	14,0	16,0	22,0	26,0	32,0	40,0	15,0	20,0	25,0	32,0	41,0	49,0
Sound power (Lw) (E)	dB(A)	32	34	36	39	42	45	30	33	40	43	47	51	31	36	40	45	49	52
Sound pressure (Lp) ⁽¹⁾	dB(A)	23	25	27	30	33	36	21	24	31	34	38	42	22	27	31	36	40	43

MODEL		CRC 43+1						CRC 53+1						CRC 63+1					
Speed		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
			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	185	265	335	400	485	570	250	315	420	495	545	650	415	505	590	680	760	830
Cooling total emission (E)	kW	1,25	1,71	2,11	2,43	2,83	3,19	1,66	2,01	2,55	2,90	3,13	3,58	2,50	2,94	3,32	3,70	4,01	4,26
Cooling sensible emission (E)	kW	0,91	1,26	1,57	1,82	2,15	2,45	1,22	1,49	1,91	2,19	2,39	2,76	1,87	2,23	2,54	2,86	3,12	3,35
Heating emission (E)	kW	1,18	1,52	1,81	2,04	2,33	2,60	1,55	1,84	2,22	2,50	2,66	3,00	2,19	2,51	2,79	3,09	3,33	3,53
Dp Cooling (E)	kPa	6,5	11,2	16,2	20,8	27,2	33,8	5,4	7,6	11,5	14,6	16,7	21,1	8,6	11,4	14,1	17,2	19,8	22,1
Dp Heating (E)	kPa	3,8	6,0	8,0	10,0	12,5	15,3	1,0	1,3	1,9	2,3	2,6	3,2	1,8	2,3	2,8	3,3	3,8	4,2
Fan (E)	W	14,0	21,0	28,0	34,0	44,0	57,0	18,0	22,0	32,0	39,0	46,0	61,0	37,0	46,0	55,0	67,0	78,0	88,0
Sound power (Lw) (E)	dB(A)	27	33	39	43	47	52	26	31	37	41	43	48	37	42	46	49	52	54
Sound pressure (Lp) ⁽¹⁾	dB(A)	18	24	30	34	38	43	17	22	28	32	34	39	28	33	37	40	43	45

MODEL		CRC 73+1						CRC 83+1						CRC 93+1					
Speed		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
			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	445	535	630	735	840	925	510	655	815	1020	1100	1200	735	830	980	1210	1365	1500
Cooling total emission (E)	kW	2,82	3,29	3,74	4,21	4,66	5,01	3,01	3,68	4,32	5,09	5,36	5,69	4,00	4,38	4,95	5,74	6,21	6,56
Cooling sensible emission (E)	kW	2,08	2,45	2,80	3,19	3,56	3,85	2,27	2,82	3,35	4,02	4,26	4,55	3,08	3,40	3,89	4,60	5,03	5,37
Heating emission (E)	kW	2,54	2,89	3,23	3,59	3,94	4,20	2,66	3,16	3,66	4,26	4,48	4,75	3,41	3,71	4,15	4,79	5,17	5,46
Dp Cooling (E)	kPa	12,3	16,2	20,3	25,1	30,1	34,2	7,2	10,3	13,8	18,4	20,2	22,5	12,5	14,6	18,2	23,6	27,3	30,1
Dp Heating (E)	kPa	2,8	3,5	4,2	5,1	6,0	6,7	3,0	4,1	5,3	6,9	7,5	8,3	4,7	5,4	6,6	8,5	9,7	10,7
Fan (E)	W	44,0	54,0	66,0	79,0	92,0	103,0	47,0	62,0	81,0	105,0	116,0	130,0	78,0	92,0	108,0	134,0	152,0	176,0
Sound power (Lw) (E)	dB(A)	38	42	47	51	54	56	39	45	50	56	58	60	47	50	54	58	62	64
Sound pressure (Lp) ⁽¹⁾	dB(A)	29	33	38	42	45	47	30	36	41	47	49	51	38	41	45	49	53	55

(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.

MIN-MED-MAX = Speeds connected in the factory

COOLING EMISSION

3 row coil units

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

Model		Vn	Qv m³/h	Pc kW	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		
					Ps kW	Qw l/h	Dp(c) kPa					Qw l/h	Dp(c) kPa	Qw l/h					Dp(c) kPa	Qw l/h	Dp(c) kPa													
CRC 13	6	MAX	220	1,08	0,83	191	2,7	0,95	0,78	169	2,1	0,69	0,69	124	1,2	0,58	0,58	105	0,9															
	5		195	0,99	0,75	175	2,3	0,87	0,70	155	1,8	0,61	0,60	110	1,0	0,52	0,52	95	0,8															
	4	MED	175	0,92	0,69	162	2,0	0,81	0,64	143	1,6	0,58	0,56	103	0,9	0,48	0,48	86	0,6															
	3		150	0,81	0,60	143	1,6	0,72	0,56	127	1,3	0,51	0,48	91	0,7	0,42	0,42	76	0,5															
	2		125	0,72	0,52	127	1,3	0,64	0,49	114	1,1	0,46	0,42	83	0,6	0,37	0,37	67	0,4															
CRC 23	1	MIN	105	0,62	0,45	110	1,0	0,55	0,42	98	0,8	0,40	0,36	72	0,5	0,31	0,31	57	0,3															
	6		340	1,84	1,35	323	9,0	1,63	1,27	287	7,3	1,19	1,10	212	4,2	0,96	0,96	172	2,9															
	5	MAX	295	1,66	1,20	291	7,5	1,47	1,13	258	6,1	1,08	0,98	191	3,5	0,86	0,86	153	2,3															
	4		250	1,46	1,05	256	6,0	1,30	0,98	229	4,9	0,96	0,85	170	2,9	0,75	0,75	134	1,8															
	3	MED	220	1,33	0,95	232	5,1	1,19	0,89	208	4,1	0,88	0,77	155	2,4	0,68	0,68	120	1,5															
CRC 33	2		170	1,07	0,75	187	3,5	0,96	0,70	169	2,8	0,71	0,61	126	1,7	0,54	0,54	96	1,0															
	1	MIN	145	0,97	0,68	169	2,9	0,86	0,63	150	2,3	0,65	0,55	114	1,4	0,49	0,49	86	0,8															
	6		440	2,81	1,96	492	27,1	2,52	1,84	442	22,3	1,90	1,60	335	13,5	1,41	1,41	251	8,0															
	5	MAX	385	2,53	1,75	442	22,4	2,27	1,65	397	18,4	1,72	1,43	303	11,2	1,26	1,26	224	6,5															
	4		325	2,20	1,51	384	17,4	1,97	1,42	344	14,4	1,50	1,23	263	8,8	1,08	1,08	191	5,0															
CRC 43	3	MED	270	1,90	1,30	330	13,4	1,70	1,22	296	11,1	1,30	1,06	227	6,8	0,94	0,94	165	3,8															
	2	MIN	235	1,66	1,13	289	10,6	1,50	1,06	261	8,8	1,14	0,92	200	5,4	0,81	0,81	143	3,0															
	1		185	1,37	0,93	237	7,5	1,23	0,87	213	6,2	0,95	0,75	165	3,9	0,66	0,66	115	2,1															
	6		570	3,43	2,44	600	38,5	3,07	2,29	538	31,5	2,30	1,99	406	19,0	1,75	1,75	311	11,7															
	5	MAX	485	3,04	2,14	530	31,0	2,73	2,01	476	25,4	2,06	1,75	361	15,4	1,54	1,54	272	9,2															
CRC 53	4		400	2,62	1,82	456	23,7	2,35	1,71	409	19,5	1,78	1,49	311	11,8	1,31	1,31	230	6,9															
	3	MED	335	2,27	1,57	396	18,5	2,04	1,47	356	15,2	1,55	1,28	272	9,3	1,12	1,12	198	5,3															
	2	MIN	265	1,84	1,26	320	12,8	1,66	1,18	289	10,5	1,27	1,03	222	6,5	0,91	0,91	160	3,6															
	1		185	1,35	0,92	234	7,3	1,22	0,86	212	6,1	0,94	0,75	163	3,8	0,66	0,66	115	2,0															
	6	MAX	650	3,86	2,75	674	23,0	3,45	2,58	604	18,9	2,59	2,25	456	11,4	1,97	1,97	349	7,0															
CRC 63	5		545	3,37	2,37	588	18,1	3,02	2,23	528	14,9	2,27	1,94	399	9,0	1,70	1,70	301	5,4															
	4	MED	495	3,12	2,19	544	15,8	2,80	2,05	488	12,9	2,11	1,78	370	7,9	1,57	1,57	277	4,6															
	3		420	2,75	1,91	478	12,5	2,46	1,79	428	10,3	1,87	1,56	327	6,3	1,37	1,37	241	3,6															
	2	MIN	315	2,16	1,49	375	8,3	1,95	1,40	339	6,8	1,48	1,21	258	4,1	1,07	1,07	187	2,4															
	1		250	1,78	1,22	310	5,9	1,60	1,14	279	4,9	1,22	0,99	213	3,0	0,87	0,87	153	1,6															
CRC 73	6		830	4,60	3,33	807	25,2	4,10	3,13	721	20,6	3,06	2,72	542	12,3	2,39	2,39	427	7,9															
	5	MAX	760	4,32	3,11	757	22,6	3,86	2,92	678	18,5	2,89	2,55	511	11,0	2,23	2,23	397	7,0															
	4		680	3,99	2,85	698	19,6	3,57	2,68	626	16,0	2,67	2,33	471	9,6	2,04	2,04	363	6,0															
	3	MED	590	3,58	2,53	624	16,0	3,20	2,38	559	13,1	2,41	2,07	423	7,9	1,82	1,82	322	4,8															
	2		505	3,16	2,22	552	13,0	2,83	2,08	495	10,6	2,14	1,81	377	6,4	1,59	1,59	282	3,8															
CRC 83	1	MIN	415	2,69	1,87	470	9,7	2,41	1,75	421	8,0	1,82	1,52	320	4,9	1,34	1,34	237	2,8															
	6	MAX	925	5,40	3,84	946	38,8	4,93	3,78	848	31,9	3,64	3,14	643	19,3	2,76	2,76	492	11,9															
	5		840	5,03	3,55	881	34,2	4,59	3,42	790	28,1	3,40	2,91	600	17,1	2,55	2,55	454	10,3															
	4	MED	735	4,54	3,18	795	28,6	4,15	3,07	713	23,5	3,08	2,60	544	14,3	2,28	2,28	406	8,5															
	3		630	4,02	2,79	703	23,1	3,68	2,69	632	19,0	2,73	2,28	482	11,6	2,00	2,00	356	6,7															
CRC 93	2	MIN	535	3,54	2,45	617	18,3	3,23	2,35	556	15,1	2,42	1,99	425	9,3	1,75	1,75	310	5,3															
	1		445	3,04	2,08	530	14,0	2,77	2,00	477	11,6	2,09	1,70	366	7,2	1,50	1,50	265	4,0															
	6	MAX	1200	6,14	4,52	1078	21,7	5,46	4,25	961	17,6	4,03	3,71	716	10,3	3,23	3,23	578	7,0															
	5		1100	5,78	4,23	1015	19,5	5,15	3,97	906	15,8	3,81	3,46	676	9,3	3,02	3,02	540	6,2															
	4	MED	1020	5,50	4,00	963	17,7	4,90	3,76	860	14,4	3,63	3,27	642	8,5	2,86	2,86	509	5,6															
CRC 103	3		815	4,67	3,34	817	13,3	4,17	3,14	731	10,8	3,11	2,73	549	6,5	2,39	2,39	425	4,1															
	2	MIN	655	3,97	2,81	693	9,9	3,55	2,63	621	8,1	2,66	2,29	468	4,9	2,02	2,02	358	3,0															
	1		510	3,24	2,26	566	7,0	2,91	2,12	509	5,7	2,19	1,84	385	3,5	1,62	1,62	287	2,0															
	6	MAX	1500	7,09	5,32	1250	28,1	6,30	5,01	1115	22,8	4,62	4,38	826	13,2	3,80	3,80	685	9,4															
	5		1365	6,71	5,00	1180	25,4	5,96	4,70	1051	20,6	4,39	4,10	781	12,0	3,57	3,57	640	8,4															
CRC 113	4	MED	1210	6,20	4,57	1089	22,0	5,51	4,29	970	17,9	4,07	3,75	722	10,5	3,27	3,27	585	7,1															
	3		980	5,34	3,87	937	16,9	4,76	3,64	838	13,8	3,53	3,16	626	8,2	2,77	2,77	495	5,3															
	2	MIN	830	4,73	3,39	829	13,6	4,22	3,18	741	11,1	3,14	2,76	556	6,6	2,42	2,42	432	4,2															
	1		735	4,32	3,07	757	11,6	3,85	2,88	676	9,5	2,88	2,50																					

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c): Dp Cooling

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

			WT: 7 / 12 °C					WT: 8 / 13 °C					WT: 10 / 15 °C					WT: 12 / 17 °C				
			Qv	Pc	Ps	Qw	Dp(c)	Pc	Ps	Qw	Dp(c)	Pc	Ps	Qw	Dp(c)	Pc	Ps	Qw	Dp(c)			
Model		Vn	m³/h	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa			
CRC 13	6	MAX	220	0,95	0,78	169	2,2	0,82	0,73	146	1,7	0,64	0,64	115	1,1	0,52	0,52	95	0,8			
	5		195	0,87	0,70	155	1,8	0,75	0,65	134	1,4	0,57	0,57	103	0,9	0,47	0,47	86	0,6			
	4	MED	175	0,81	0,64	143	1,6	0,70	0,60	124	1,2	0,53	0,53	95	0,8	0,44	0,44	79	0,5			
	3		150	0,71	0,56	126	1,3	0,62	0,52	110	1,0	0,46	0,46	83	0,6	0,38	0,38	69	0,4			
	2		125	0,63	0,49	112	1,1	0,55	0,46	98	0,8	0,40	0,40	72	0,5	0,33	0,33	60	0,3			
	1	MIN	105	0,55	0,42	98	0,8	0,47	0,39	84	0,6	0,35	0,35	64	0,4	0,28	0,28	52	0,3			
CRC 23	6		340	1,62	1,27	286	7,3	1,42	1,19	251	5,7	1,05	1,05	187	3,4	0,87	0,87	157	2,5			
	5	MAX	295	1,46	1,13	256	6,0	1,28	1,06	225	4,8	0,94	0,94	167	2,8	0,78	0,78	139	2,0			
	4		250	1,29	0,98	227	4,9	1,13	0,92	200	3,9	0,82	0,82	146	2,2	0,68	0,68	122	1,6			
	3	MED	220	1,18	0,89	206	4,1	1,04	0,83	182	3,3	0,72	0,71	127	1,7	0,62	0,62	110	1,3			
	2		170	0,95	0,70	167	2,8	0,83	0,66	146	2,2	0,59	0,56	105	1,2	0,49	0,49	88	0,9			
	1	MIN	145	0,86	0,63	150	2,3	0,76	0,59	132	1,9	0,54	0,51	95	1,0	0,44	0,44	77	0,7			
CRC 33	6		440	2,50	1,85	439	22,2	2,21	1,72	389	17,8	1,58	1,48	280	9,9	1,28	1,28	229	6,8			
	5	MAX	385	2,25	1,65	394	18,4	1,99	1,54	349	14,7	1,43	1,32	253	8,3	1,15	1,15	205	5,6			
	4		325	1,96	1,42	342	14,3	1,73	1,33	303	11,5	1,25	1,14	220	6,5	0,99	0,99	175	4,3			
	3	MED	270	1,69	1,22	294	11,0	1,50	1,14	261	8,9	1,09	0,98	191	5,0	0,86	0,86	151	3,3			
	2	MIN	235	1,48	1,06	258	8,8	1,32	0,99	230	7,1	0,96	0,85	169	4,0	0,74	0,74	131	2,6			
	1		185	1,22	0,87	212	6,2	1,09	0,81	189	5,0	0,80	0,70	139	2,9	0,61	0,61	107	1,8			
CRC 43	6		570	3,05	2,29	535	31,5	2,69	2,14	473	25,1	1,91	1,84	339	13,8	1,60	1,60	286	10,0			
	5	MAX	485	2,71	2,02	473	25,3	2,39	1,89	418	20,3	1,71	1,62	301	11,2	1,41	1,41	249	7,9			
	4		400	2,33	1,72	406	19,4	2,06	1,60	359	15,5	1,49	1,38	261	8,7	1,20	1,20	212	5,9			
	3	MED	335	2,02	1,47	353	15,1	1,79	1,38	313	12,2	1,29	1,18	227	6,9	1,03	1,03	182	4,5			
	2	MIN	265	1,65	1,19	287	10,5	1,46	1,11	255	8,5	1,06	0,95	186	4,8	0,83	0,83	146	3,1			
	1		185	1,21	0,86	210	6,1	1,08	0,81	187	4,9	0,79	0,69	138	2,8	0,60	0,60	105	1,7			
CRC 53	6	MAX	650	3,43	2,59	600	18,8	3,02	2,42	530	15,0	2,14	2,08	378	8,1	1,80	1,80	320	6,0			
	5		545	3,00	2,23	525	14,9	2,65	2,09	464	11,9	1,89	1,79	334	6,5	1,55	1,55	275	4,6			
	4	MED	495	2,78	2,06	485	12,9	2,45	1,92	428	10,3	1,76	1,65	310	5,8	1,43	1,43	253	4,0			
	3		420	2,45	1,80	427	10,3	2,16	1,68	377	8,3	1,56	1,44	273	4,6	1,25	1,25	220	3,1			
	2	MIN	315	1,93	1,40	335	6,8	1,71	1,31	298	5,4	1,24	1,12	217	3,1	0,98	0,98	172	2,0			
	1		250	1,59	1,14	277	4,9	1,41	1,07	246	3,9	1,03	0,91	181	2,3	0,80	0,80	141	1,4			
CRC 63	6		830	4,09	3,13	719	20,6	3,59	2,93	633	16,3	2,60	2,60	463	9,3	2,17	2,17	389	6,8			
	5	MAX	760	3,84	2,93	674	18,4	3,38	2,74	595	14,7	2,38	2,35	423	7,9	2,03	2,02	363	6,0			
	4		680	3,55	2,68	623	16,0	3,12	2,51	549	12,7	2,21	2,15	392	6,9	1,86	1,86	332	5,1			
	3	MED	590	3,18	2,38	556	13,1	2,81	2,23	492	10,5	2,00	1,91	353	5,7	1,66	1,66	294	4,1			
	2		505	2,82	2,09	494	10,6	2,49	1,95	437	8,5	1,77	1,67	313	4,7	1,45	1,45	258	3,3			
	1	MIN	415	2,40	1,76	420	8,0	2,12	1,64	372	6,4	1,52	1,41	268	3,6	1,22	1,22	217	2,4			
CRC 73	6	MAX	925	4,81	3,61	845	31,8	4,24	3,38	746	25,4	3,02	2,91	537	14,0	2,16	2,16	389	6,8			
	5		840	4,48	3,34	786	28,0	3,95	3,13	695	22,5	2,82	2,69	501	12,5	2,02	2,02	363	6,0			
	4	MED	735	4,04	2,99	709	23,4	3,57	2,80	628	18,8	2,56	2,40	454	10,5	1,85	1,85	332	5,1			
	3		630	3,58	2,63	628	18,9	3,17	2,46	557	15,2	2,28	2,11	404	8,6	1,64	1,64	294	4,1			
	2	MIN	535	3,16	2,30	552	15,1	2,80	2,15	490	12,1	2,03	1,85	358	6,9	1,45	1,45	258	3,3			
	1		445	2,72	1,96	475	11,5	2,41	1,83	421	9,3	1,75	1,57	308	5,3	1,22	1,22	217	2,4			
CRC 83	6	MAX	1200	5,44	4,26	958	17,6	4,77	3,99	843	13,9	3,53	3,53	630	8,2	2,94	2,94	528	6,0			
	5		1100	5,13	3,98	903	15,8	4,49	3,72	793	12,5	3,30	3,30	588	7,3	2,75	2,75	494	5,3			
	4	MED	1020	4,88	3,76	857	14,4	4,28	3,52	753	11,4	3,12	3,12	554	6,6	2,60	2,60	464	4,8			
	3		815	4,14	3,15	726	10,8	3,64	2,94	640	8,6	2,56	2,52	454	4,6	2,18	2,18	389	3,5			
	2	MIN	655	3,53	2,64	617	8,1	3,11	2,47	545	6,5	2,20	2,11	389	3,5	1,84	1,84	327	2,6			
	1		510	2,89	2,13	506	5,7	2,55	1,99	447	4,6	1,82	1,70	322	2,5	1,48	1,48	263	1,7			
CRC 93	6	MAX	1500	5,39	4,21	958	17,6	5,48	4,70	974	18,0	4,16	4,16	746	11,1	3,45	3,45	624	8,0			
	5		1365	5,10	3,95	903	15,8	5,20	4,41	920	16,3	3,91	3,91	698	9,9	3,25	3,25	585	7,1			
	4	MED	1210	4,85	3,73	857	14,4	4,81	4,03	850	14,1	3,57	3,57	636	8,4	2,97	2,97	533	6,1			
	3		980	4,11	3,12	726	10,8	4,15	3,41	733	10,9	3,02	3,02	538	6,2	2,51	2,51	451	4,5			
	2	MIN	830	3,50	2,61	617	8,1	3,69	2,98	650	8,8	2,59	2,55	461	4,7	2,20	2,20	394	3,6			
	1		735	2,86	2,10	506	5,7	3,37	2,70	593	7,5	2,37	2,31	421	4,1	1,99	1,99	356	3,0			

WT: Water temperature
Vn: Nominal speeds
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		Vn	Qv m³/h	WT: 7 / 12 °C				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
				Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC 13	6	MAX	220	0,82	0,73	146	1,7	0,68	0,67	122	1,2	0,58	0,58	105	0,9	0,47	0,47	86	0,6
	5		195	0,75	0,65	134	1,4	0,62	0,60	112	1,1	0,52	0,52	95	0,8	0,42	0,42	77	0,5
	4	MED	175	0,70	0,60	124	1,2	0,59	0,56	105	0,9	0,48	0,48	86	0,7	0,39	0,39	71	0,5
	3		150	0,62	0,52	110	1,0	0,52	0,48	93	0,7	0,42	0,42	76	0,5	0,34	0,34	62	0,4
	2		125	0,55	0,46	98	0,8	0,46	0,42	83	0,6	0,37	0,37	67	0,4	0,30	0,30	55	0,3
CRC 23	1	MIN	105	0,47	0,39	84	0,6	0,40	0,36	72	0,5	0,31	0,31	57	0,3	0,25	0,25	46	0,2
	6		340	1,42	1,19	251	5,8	1,21	1,11	215	4,4	0,96	0,96	172	2,9	0,78	0,78	141	2,0
	5	MAX	295	1,28	1,06	225	4,8	1,09	0,98	193	3,6	0,86	0,86	153	2,4	0,70	0,70	126	1,7
	4		250	1,13	0,92	200	3,9	0,97	0,86	172	2,9	0,75	0,75	134	1,9	0,61	0,61	110	1,3
	3	MED	220	1,03	0,84	181	3,3	0,89	0,78	157	2,5	0,68	0,68	120	1,6	0,56	0,56	100	1,1
CRC 33	2		170	0,83	0,66	146	2,2	0,72	0,61	127	1,7	0,54	0,54	96	1,0	0,44	0,44	79	0,7
	1	MIN	145	0,75	0,59	131	1,9	0,65	0,55	114	1,4	0,49	0,49	86	0,9	0,40	0,40	71	0,6
	6		440	2,20	1,73	387	17,8	1,91	1,61	337	13,8	1,41	1,41	251	8,1	1,16	1,16	208	5,8
	5	MAX	385	1,98	1,55	347	14,8	1,72	1,44	303	11,5	1,26	1,26	224	6,6	1,04	1,04	186	4,7
	4		325	1,73	1,33	303	11,5	1,50	1,24	263	9,0	1,09	1,09	193	5,1	0,90	0,90	160	3,6
CRC 43	3	MED	270	1,49	1,14	260	8,9	1,30	1,06	227	6,9	0,94	0,94	165	3,9	0,78	0,78	138	2,8
	2	MIN	235	1,31	1,00	229	7,1	1,14	0,93	200	5,5	0,82	0,82	144	3,1	0,67	0,67	119	2,2
	1		185	1,08	0,82	187	5,0	0,95	0,76	165	3,9	0,64	0,64	112	2,0	0,55	0,55	96	1,5
	6		570	2,68	2,15	471	25,2	2,32	2,00	409	19,5	1,76	1,76	313	11,9	1,44	1,44	258	8,4
	5	MAX	485	2,39	1,89	418	20,3	2,07	1,76	363	15,7	1,55	1,55	273	9,4	1,27	1,27	225	6,6
CRC 53	4		400	2,06	1,61	359	15,6	1,78	1,50	311	12,1	1,32	1,32	232	7,0	1,08	1,08	191	5,0
	3	MED	335	1,78	1,38	311	12,2	1,55	1,28	272	9,5	1,13	1,13	200	5,4	0,93	0,93	165	3,8
	2	MIN	265	1,45	1,11	253	8,5	1,27	1,03	222	6,6	0,91	0,91	160	3,7	0,75	0,75	132	2,6
	1		185	1,07	0,81	186	4,9	0,94	0,75	163	3,8	0,64	0,63	112	1,9	0,55	0,55	96	1,5
	6	MAX	650	3,02	2,42	530	15,0	2,61	2,26	459	11,6	1,98	1,98	351	7,1	1,62	1,62	289	5,0
CRC 63	5		545	2,64	2,09	463	11,9	2,28	1,95	401	9,1	1,71	1,71	303	5,5	1,40	1,40	249	3,9
	4	MED	495	2,45	1,93	428	10,4	2,12	1,79	372	8,0	1,57	1,57	277	4,8	1,29	1,29	229	3,4
	3		420	2,16	1,68	377	8,3	1,87	1,57	327	6,4	1,37	1,37	241	3,8	1,13	1,13	200	2,6
	2	MIN	315	1,71	1,31	298	5,4	1,48	1,22	258	4,3	1,08	1,08	189	2,4	0,89	0,89	157	1,8
	1		250	1,41	1,07	246	3,9	1,23	0,99	215	3,0	0,87	0,87	153	1,6	0,72	0,72	127	1,1
CRC 73	6		830	3,58	2,94	631	16,4	3,09	2,73	547	12,6	2,39	2,39	427	8,1	1,96	1,96	353	5,7
	5	MAX	760	3,37	2,74	593	14,7	2,91	2,56	514	11,3	2,23	2,23	397	7,1	1,83	1,83	329	5,0
	4		680	3,12	2,51	549	12,8	2,69	2,34	475	9,9	2,05	2,05	365	6,1	1,68	1,68	301	4,3
	3	MED	590	2,80	2,23	490	10,5	2,42	2,08	425	8,1	1,82	1,82	322	4,9	1,50	1,50	267	3,5
	2		505	2,48	1,95	435	8,5	2,14	1,82	377	6,6	1,59	1,59	282	3,9	1,31	1,31	234	2,8
CRC 83	1	MIN	415	2,11	1,64	370	6,4	1,83	1,53	322	5,0	1,34	1,34	237	2,9	1,10	1,10	196	2,0
	6	MAX	925	4,23	3,39	745	25,5	3,66	3,16	647	19,8	2,76	2,76	492	12,1	2,27	2,27	408	8,5
	5		840	3,94	3,14	693	22,5	3,41	2,92	602	17,5	2,56	2,56	456	10,5	2,10	2,10	377	7,4
	4	MED	735	3,56	2,81	626	18,8	3,09	2,61	545	14,6	2,29	2,29	408	8,6	1,88	1,88	337	6,1
	3		630	3,16	2,46	556	15,2	2,74	2,29	483	11,9	2,01	2,01	358	6,9	1,65	1,65	296	4,9
CRC 93	2	MIN	535	2,79	2,16	488	12,1	2,42	2,00	425	9,5	1,76	1,76	311	5,4	1,45	1,45	258	3,8
	1		445	2,40	1,84	420	9,3	2,09	1,71	366	7,3	1,51	1,51	267	4,1	1,24	1,24	220	2,9
	6	MAX	1200	4,76	3,99	841	14,0	4,08	3,72	724	10,7	3,24	3,24	580	7,1	2,64	2,64	476	5,0
	5		1100	4,49	3,73	793	12,6	3,85	3,47	683	9,6	3,03	3,03	542	6,3	2,47	2,47	445	4,4
	4	MED	1020	4,27	3,53	752	11,5	3,67	3,28	648	8,8	2,87	2,87	511	5,7	2,34	2,34	420	4,0
CRC 93	3		815	3,63	2,95	638	8,6	3,13	2,74	552	6,6	2,39	2,39	425	4,1	1,96	1,96	351	2,9
	2	MIN	655	3,10	2,47	544	6,5	2,67	2,30	470	5,0	2,03	2,03	359	3,1	1,66	1,66	296	2,2
	1		510	2,54	1,99	445	4,6	2,20	1,85	387	3,5	1,63	1,63	289	2,1	1,34	1,34	239	1,5
	6	MAX	1500	5,49	4,71	975	18,1	4,68	4,39	836	13,7	3,81	3,81	686	9,6	3,10	3,10	564	6,7
	5		1365	5,20	4,42	920	16,4	4,44	4,11	789	12,4	3,58	3,58	642	8,5	2,92	2,92	528	5,9
CRC 93	4	MED	1210	4,81	4,04	850	14,2	4,12	3,76	731	10,8	3,27	3,27	585	7,2	2,67	2,67	482	5,1
	3		980	4,15	3,41	733	11,0	3,56	3,17	631	8,4	2,77	2,77	495	5,4	2,26	2,26	408	3,8
	2	MIN	830	3,68	2,98	648	8,8	3,17	2,78	561	6,8	2,42	2,42	432	4,2	1,98	1,98	356	3,0
	1		735	3,36	2,70	592	7,5	2,90	2,51	513	5,8	2,20	2,20	392	3,6	1,80	1,80	323	2,5

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c): Dp Cooling

4 row coil units

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

Model	Vn	Qv m³/h	WT: 7 / 12 °C					WT: 8 / 13 °C					WT: 10 / 15 °C					WT: 12 / 17 °C				
			Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC 14	6	MAX	220	1,30	0,93	229	6,4	1,15	0,88	203	5,2	0,84	0,76	150	3,0	0,67	0,67	120	2,0			
	5		195	1,17	0,84	206	5,4	1,04	0,78	184	4,3	0,76	0,68	136	2,5	0,59	0,59	107	1,6			
	4	MED	175	1,08	0,77	189	4,6	0,96	0,72	169	3,7	0,71	0,62	126	2,2	0,55	0,55	98	1,4			
	3		150	0,94	0,66	165	3,6	0,84	0,62	148	2,9	0,62	0,53	110	1,7	0,47	0,47	84	1,1			
	2		125	0,83	0,58	146	2,9	0,74	0,54	131	2,4	0,55	0,46	98	1,4	0,41	0,41	74	0,9			
	1	MIN	105	0,71	0,49	126	2,2	0,63	0,45	112	1,8	0,47	0,39	84	1,1	0,35	0,35	64	0,6			
CRC 24	6		340	2,16	1,52	378	19,6	1,93	1,43	339	16,0	1,45	1,24	256	9,6	1,09	1,09	194	5,9			
	5	MAX	295	1,92	1,34	335	15,9	1,72	1,26	301	13,0	1,30	1,09	229	7,8	0,96	0,96	170	4,7			
	4		250	1,68	1,16	294	12,5	1,50	1,09	263	10,3	1,13	0,94	200	6,2	0,83	0,83	148	3,6			
	3	MED	220	1,52	1,05	265	10,4	1,36	0,98	237	8,6	1,03	0,85	181	5,2	0,75	0,75	132	3,0			
	2		170	1,20	0,81	210	6,9	1,07	0,76	187	5,7	0,82	0,66	144	3,5	0,58	0,58	103	1,9			
	1	MIN	145	1,07	0,73	186	5,6	0,96	0,68	167	4,6	0,74	0,59	129	2,9	0,52	0,52	91	1,6			
CRC 34	6		440	3,04	2,09	531	16,0	2,73	1,96	478	13,2	2,07	1,70	365	8,1	1,50	1,50	267	4,6			
	5	MAX	385	2,72	1,86	475	13,1	2,44	1,74	427	10,8	1,85	1,51	325	6,6	1,33	1,33	236	3,7			
	4		325	2,34	1,59	408	10,1	2,11	1,49	368	8,3	1,61	1,29	282	5,1	1,14	1,14	201	2,8			
	3	MED	270	2,01	1,36	349	7,6	1,81	1,27	315	6,3	1,38	1,10	241	3,9	0,98	0,98	172	2,1			
	2		235	1,75	1,18	304	6,0	1,57	1,10	273	5,0	1,21	0,95	212	3,1	0,84	0,84	148	1,6			
	1	MIN	185	1,42	0,96	246	4,1	1,29	0,90	224	3,4	0,99	0,78	172	2,2	0,69	0,69	120	1,1			
CRC 44	6		570	3,65	2,54	638	21,2	3,27	2,38	573	17,4	2,47	2,06	435	10,5	1,82	1,82	323	6,2			
	5	MAX	485	3,31	2,29	576	17,7	2,97	2,15	518	14,5	2,25	1,86	394	8,8	1,65	1,65	291	5,1			
	4		400	2,82	1,93	490	13,3	2,53	1,81	440	10,9	1,93	1,57	337	6,7	1,39	1,39	244	3,8			
	3	MED	335	2,42	1,65	421	10,2	2,18	1,55	380	8,4	1,66	1,34	291	5,2	1,18	1,18	208	2,9			
	2		265	1,95	1,32	339	6,9	1,76	1,24	306	5,7	1,34	1,07	234	3,6	0,95	0,95	167	1,9			
	1	MIN	185	1,41	0,95	244	3,9	1,27	0,89	220	3,2	0,98	0,77	170	2,0	0,68	0,68	119	1,1			
CRC 54	6	MAX	650	4,34	3,00	757	35,5	3,90	2,82	681	29,3	2,96	2,45	519	18,0	2,16	2,16	382	10,3			
	5		545	3,75	2,57	654	27,4	3,37	2,41	588	22,7	2,57	2,10	451	14,0	1,85	1,85	327	7,8			
	4	MED	495	3,45	2,36	600	23,6	3,10	2,21	540	19,5	2,37	1,92	415	12,1	1,69	1,69	298	6,7			
	3		420	3,00	2,04	521	18,5	2,71	1,92	471	15,3	2,08	1,67	363	9,5	1,47	1,47	258	5,2			
	2		315	2,33	1,57	404	11,8	2,10	1,48	365	9,8	1,62	1,28	282	6,1	1,13	1,13	198	3,2			
	1	MIN	250	1,90	1,28	330	8,3	1,72	1,20	299	6,9	1,33	1,04	232	4,3	0,87	0,87	153	2,1			
CRC 64	6		830	5,43	3,77	949	46,5	4,87	3,54	853	38,3	3,69	3,08	650	23,4	2,71	2,71	482	13,6			
	5	MAX	760	5,06	3,51	884	41,1	4,55	3,29	796	33,9	3,45	2,86	607	20,8	2,52	2,52	447	12,0			
	4		680	4,63	3,19	808	35,1	4,16	2,99	728	28,9	3,17	2,60	557	17,8	2,29	2,29	406	10,1			
	3	MED	590	4,10	2,81	714	28,1	3,69	2,64	643	23,3	2,81	2,29	492	14,4	2,02	2,02	356	8,0			
	2		505	3,58	2,44	624	22,3	3,23	2,29	564	18,4	2,47	1,98	433	11,4	1,75	1,75	310	6,2			
	1	MIN	415	3,00	2,03	523	16,3	2,70	1,90	471	13,5	2,08	1,65	365	8,4	1,46	1,46	258	4,5			
CRC 74	6	MAX	925	5,90	4,11	1032	31,4	5,29	3,86	927	25,9	4,01	3,36	707	15,8	2,95	2,95	525	9,3			
	5		840	5,47	3,79	956	27,5	4,91	3,56	860	22,6	3,72	3,10	655	13,9	2,72	2,72	483	8,0			
	4	MED	735	4,90	3,38	857	22,7	4,40	3,17	771	18,7	3,35	2,76	590	11,5	2,42	2,42	430	6,5			
	3		630	4,31	2,95	753	18,1	3,88	2,77	679	14,9	2,95	2,40	519	9,2	2,11	2,11	375	5,1			
	2	MIN	535	3,77	2,57	657	14,2	3,39	2,41	592	11,8	2,60	2,09	456	7,3	1,85	1,85	327	4,0			
	1		445	3,21	2,18	559	10,7	2,90	2,04	506	8,9	2,22	1,77	389	5,5	1,56	1,56	275	3,0			
CRC 84	6	MAX	1200	6,85	4,91	1201	36,0	6,11	4,60	1073	29,3	4,55	4,00	805	17,5	3,50	3,50	624	11,0			
	5		1100	6,41	4,57	1123	32,0	5,72	4,29	1004	26,1	4,27	3,72	755	15,5	3,26	3,26	581	9,7			
	4	MED	1020	6,07	4,31	1061	29,0	5,42	4,04	949	23,6	4,05	3,51	714	14,0	3,08	3,08	547	8,6			
	3		815	5,09	3,57	889	21,2	4,56	3,35	798	17,3	3,42	2,91	602	10,4	2,57	2,57	456	6,3			
	2	MIN	655	4,28	2,98	746	15,7	3,84	2,79	671	12,8	2,89	2,42	507	7,7	2,13	2,13	377	4,5			
	1		510	3,46	2,38	604	10,8	3,11	2,23	544	8,8	2,35	1,93	413	5,4	1,70	1,70	301	3,1			
CRC 94	6	MAX	1500	8,02	5,83	1410	26,5	7,14	5,47	1259	21,6	5,28	4,76	939	12,7	4,16	4,16	746	8,4			
	5		1365	7,54	5,45	1323	23,7	6,72	5,12	1182	19,3	4,98	4,46	882	11,4	3,89	3,89	695	7,4			
	4	MED	1210	6,92	4,96	1213	20,3	6,17	4,66	1084	16,5	4,59	4,05	812	9,8	3,54	3,54	631	6,2			
	3		980	5,89	4,17	1032	15,3	5,26	3,91	924	12,5	3,93	3,39	695	7,5	2,97	2,97	530	4,6			
	2	MIN	830	5,16	3,62	903	12,1	4,62	3,40	810	9,9	3,46	2,94	611	6,0	2,60	2,60	463	3,6			
	1		735	4,69	3,27	820	10,2	4,19	3,06	734	8,4	3,15	2,66	556	5,0	2,34	2,34	416	3,0			

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c): Dp Cooling

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

Model		Vn	Qv m³/h	WT: 7 / 12 °C				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
				Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC 14	6	MAX	220	1,14	0,88	201	5,1	1,00	0,82	177	4,0	0,73	0,73	131	2,3	0,60	0,60	108	1,7
	5		195	1,03	0,78	182	4,3	0,90	0,73	160	3,4	0,65	0,65	117	1,9	0,54	0,54	98	1,4
	4	MED	175	0,95	0,72	167	3,7	0,83	0,67	146	2,9	0,58	0,57	103	1,5	0,50	0,50	89	1,2
	3		150	0,83	0,62	146	2,9	0,73	0,58	129	2,3	0,51	0,49	91	1,2	0,43	0,43	77	0,9
	2		125	0,73	0,54	129	2,4	0,64	0,50	114	1,9	0,45	0,43	81	1,0	0,37	0,37	67	0,7
CRC 24	1	MIN	105	0,63	0,46	112	1,8	0,55	0,42	98	1,4	0,39	0,36	71	0,8	0,31	0,31	57	0,5
	6		340	1,92	1,43	337	16,0	1,69	1,34	298	12,7	1,20	1,14	213	7,0	0,99	0,99	177	5,0
	5	MAX	295	1,71	1,26	299	13,0	1,51	1,18	265	10,3	1,08	1,01	191	5,7	0,88	0,88	157	4,0
	4		250	1,49	1,09	261	10,3	1,32	1,02	232	8,2	0,95	0,87	169	4,6	0,76	0,76	136	3,1
	3	MED	220	1,35	0,98	236	8,5	1,20	0,92	210	6,8	0,86	0,79	151	3,8	0,69	0,69	122	2,5
CRC 34	2		170	1,07	0,77	187	5,7	0,95	0,71	167	4,6	0,68	0,61	120	2,6	0,53	0,53	95	1,7
	1	MIN	145	0,96	0,68	167	4,6	0,85	0,64	148	3,7	0,62	0,55	108	2,1	0,48	0,48	84	1,3
	6		440	2,71	1,97	475	13,1	2,40	1,83	421	10,6	1,73	1,57	306	5,9	1,37	1,37	244	3,9
	5	MAX	385	2,43	1,75	425	10,8	2,15	1,63	377	8,7	1,55	1,39	273	4,9	1,22	1,22	217	3,2
	4		325	2,09	1,50	365	8,3	1,86	1,40	325	6,7	1,35	1,19	237	3,8	1,04	1,04	184	2,4
CRC 44	3	MED	270	1,79	1,28	311	6,3	1,59	1,19	277	5,1	1,16	1,02	203	2,9	0,89	0,89	157	1,8
	2	MIN	235	1,56	1,11	272	4,9	1,39	1,03	243	4,0	1,02	0,88	179	2,3	0,77	0,77	136	1,4
	1		185	1,28	0,90	222	3,4	1,14	0,84	198	2,8	0,84	0,72	146	1,6	0,63	0,63	110	1,0
	6		570	3,25	2,39	569	17,3	2,87	2,23	504	13,8	2,06	1,91	365	7,7	1,66	1,66	296	5,3
	5	MAX	485	2,96	2,16	516	14,5	2,61	2,01	456	11,6	1,88	1,72	330	6,5	1,51	1,51	267	4,4
CRC 54	4		400	2,52	1,82	439	10,9	2,23	1,70	389	8,8	1,61	1,45	282	4,9	1,27	1,27	224	3,2
	3	MED	335	2,16	1,55	377	8,4	1,92	1,45	335	6,7	1,39	1,24	244	3,8	1,08	1,08	191	2,4
	2	MIN	265	1,74	1,24	303	5,7	1,55	1,16	270	4,6	1,13	0,99	198	2,6	0,87	0,87	153	1,6
	1		185	1,26	0,89	218	3,2	1,12	0,83	194	2,6	0,83	0,71	144	1,5	0,62	0,62	108	0,9
	6	MAX	650	3,87	2,83	676	29,1	3,43	2,64	600	23,5	2,49	2,27	439	13,3	1,97	1,97	349	8,8
CRC 64	5		545	3,35	2,42	585	22,6	2,97	2,26	519	18,2	2,16	1,94	380	10,4	1,69	1,69	299	6,7
	4	MED	495	3,08	2,22	537	19,4	2,74	2,07	478	15,7	2,00	1,78	351	9,0	1,55	1,55	273	5,7
	3		420	2,69	1,93	468	15,2	2,39	1,80	416	12,3	1,75	1,54	306	7,1	1,35	1,35	237	4,5
	2	MIN	315	2,09	1,48	363	9,7	1,86	1,38	323	7,9	1,37	1,19	239	4,6	1,04	1,04	182	2,8
	1		250	1,70	1,20	296	6,8	1,52	1,12	265	5,6	1,12	0,96	196	3,2	0,84	0,84	148	1,9
CRC 74	6		830	4,84	3,55	848	38,1	4,28	3,32	752	30,6	3,09	2,85	547	17,2	2,48	2,48	442	11,7
	5	MAX	760	4,52	3,30	791	33,8	4,00	3,09	702	27,1	2,89	2,65	511	15,4	2,30	2,30	409	10,2
	4		680	4,14	3,00	724	28,8	3,66	2,81	642	23,2	2,66	2,41	470	13,2	2,09	2,09	372	8,7
	3	MED	590	3,66	2,64	638	23,1	3,25	2,47	568	18,7	2,37	2,12	416	10,7	1,84	1,84	325	6,8
	2		505	3,20	2,29	559	18,3	2,84	2,14	497	14,8	2,08	1,84	366	8,5	1,60	1,60	284	5,4
CRC 84	1	MIN	415	2,68	1,91	468	13,4	2,39	1,78	418	10,9	1,75	1,53	308	6,3	1,33	1,33	236	3,9
	6	MAX	925	5,26	3,87	922	25,8	4,65	3,62	817	20,7	3,35	3,11	593	11,6	2,70	2,70	482	7,9
	5		840	4,88	3,57	855	22,6	4,32	3,34	759	18,1	3,12	2,86	552	10,2	2,49	2,49	444	6,9
	4	MED	735	4,38	3,18	767	18,6	3,88	2,97	681	15,0	2,81	2,55	497	8,5	2,21	2,21	394	5,6
	3		630	3,85	2,78	674	14,9	3,41	2,59	599	12,0	2,48	2,22	439	6,8	1,93	1,93	344	4,4
CRC 94	2	MIN	535	3,37	2,42	588	11,7	2,99	2,26	523	9,4	2,18	1,94	384	5,4	1,69	1,69	299	3,4
	1		445	2,87	2,05	501	8,8	2,56	1,91	447	7,1	1,87	1,64	329	4,1	1,43	1,43	253	2,6
	6	MAX	1200	6,08	4,61	1068	29,2	5,33	4,31	939	23,2	3,73	3,70	664	12,4	3,19	3,19	571	9,4
	5		1100	5,69	4,30	999	26,1	5,00	4,01	881	20,7	3,51	3,44	624	11,2	2,97	2,97	531	8,3
	4	MED	1020	5,39	4,05	944	23,6	4,74	3,79	832	18,7	3,34	3,24	592	10,1	2,80	2,80	499	7,4
CRC 94	3		815	4,53	3,36	793	17,3	3,99	3,14	700	13,9	2,83	2,68	501	7,6	2,34	2,34	416	5,4
	2	MIN	655	3,81	2,80	666	12,8	3,36	2,61	588	10,3	2,40	2,23	423	5,6	1,95	1,95	346	3,8
	1		510	3,09	2,24	540	8,8	2,73	2,09	478	7,0	1,96	1,78	346	4,0	1,55	1,55	275	2,5
	6	MAX	1500	7,11	5,48	1254	21,5	6,22	5,13	1101	17,0	4,54	4,54	812	9,8	3,78	3,78	681	7,1
	5		1365	6,69	5,13	1176	19,3	5,86	4,80	1034	15,2	4,25	4,25	757	8,7	3,54	3,54	635	6,3
CRC 94	4	MED	1210	6,14	4,67	1078	16,5	5,39	4,36	949	13,1	3,77	3,74	671	7,0	3,22	3,22	576	5,3
	3		980	5,23	3,92	918	12,5	4,60	3,66	810	9,9	3,24	3,13	576	5,4	2,70	2,70	483	3,9
	2	MIN	830	4,59	3,41	805	9,9	4,04	3,18	710	7,9	2,86	2,72	507	4,3	2,37	2,37	423	3,1
	1		735	4,17	3,07	731	8,3	3,67	2,87	645	6,6	2,61	2,45	463	3,7	2,14	2,14	382	2,6

WT: Water temperature
Vn: Nominal speeds
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		Vn	Qv m³/h	Pc kW	WT: 7 / 12 °C				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
					Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	
CRC 14	6	MAX	220	1,00	0,82	177	4,1	0,85	0,76	151	3,1	0,67	0,67	120	2,0	0,54	0,54	98	1,4	
	5		195	0,90	0,73	160	3,4	0,77	0,68	138	2,6	0,60	0,60	108	1,7	0,48	0,48	88	1,2	
	4	MED	175	0,83	0,67	146	2,9	0,71	0,62	126	2,2	0,55	0,55	98	1,4	0,45	0,45	81	1,0	
	3		150	0,73	0,58	129	2,3	0,62	0,54	110	1,8	0,47	0,47	84	1,1	0,38	0,38	69	0,8	
	2		125	0,64	0,50	114	1,9	0,55	0,47	98	1,4	0,41	0,41	74	0,9	0,34	0,34	62	0,6	
	1	MIN	105	0,55	0,42	98	1,4	0,47	0,39	84	1,1	0,35	0,35	64	0,7	0,28	0,28	52	0,5	
CRC 24	6		340	1,69	1,34	298	12,8	1,46	1,24	258	9,8	1,09	1,09	194	6,0	0,90	0,90	162	4,2	
	5	MAX	295	1,51	1,18	265	10,4	1,30	1,10	229	8,0	0,97	0,97	172	4,7	0,79	0,79	141	3,4	
	4		250	1,32	1,02	232	8,2	1,14	0,95	201	6,4	0,83	0,83	148	3,7	0,68	0,68	122	2,6	
	3	MED	220	1,19	0,92	208	6,8	1,03	0,85	181	5,3	0,75	0,75	132	3,0	0,62	0,62	110	2,1	
	2		170	0,94	0,72	165	4,6	0,82	0,66	144	3,5	0,59	0,59	105	2,0	0,48	0,48	86	1,4	
	1	MIN	145	0,85	0,64	148	3,7	0,74	0,59	129	2,9	0,53	0,53	93	1,6	0,43	0,43	76	1,1	
CRC 34	6		440	2,39	1,84	420	10,6	2,07	1,71	365	8,2	1,50	1,50	267	4,7	1,24	1,24	222	3,3	
	5	MAX	385	2,14	1,64	375	8,7	1,86	1,52	327	6,7	1,34	1,34	237	3,8	1,10	1,10	196	2,7	
	4		325	1,85	1,40	323	6,7	1,61	1,30	282	5,2	1,15	1,15	203	2,9	0,95	0,95	169	2,0	
	3	MED	270	1,59	1,20	277	5,1	1,38	1,11	241	4,0	0,93	0,93	163	2,0	0,81	0,81	143	1,5	
	2	MIN	235	1,38	1,04	241	4,0	1,21	0,96	212	3,1	0,82	0,80	144	1,6	0,70	0,70	124	1,2	
	1		185	1,13	0,84	196	2,8	0,99	0,78	172	2,2	0,68	0,66	119	1,1	0,57	0,57	100	0,8	
CRC 44	6		570	2,95	2,31	518	14,6	2,56	2,15	451	11,3	1,89	1,89	335	6,7	1,50	1,50	268	4,5	
	5	MAX	485	2,60	2,02	454	11,6	2,26	1,87	396	9,0	1,65	1,65	291	5,2	1,36	1,36	241	3,7	
	4		400	2,22	1,70	387	8,8	1,93	1,58	337	6,8	1,40	1,40	246	3,8	1,15	1,15	203	2,7	
	3	MED	335	1,91	1,45	334	6,7	1,66	1,35	291	5,3	1,19	1,19	210	2,9	0,98	0,98	174	2,1	
	2	MIN	265	1,54	1,16	268	4,6	1,34	1,08	234	3,6	0,91	0,90	160	1,8	0,79	0,79	139	1,4	
	1		185	1,12	0,83	194	2,6	0,98	0,77	170	2,0	0,67	0,65	117	1,0	0,56	0,56	98	0,8	
CRC 54	6	MAX	650	3,42	2,65	599	23,5	2,97	2,46	521	18,3	2,16	2,16	382	10,5	1,78	1,78	316	7,4	
	5		545	2,96	2,27	518	18,2	2,58	2,11	452	14,2	1,85	1,85	327	8,0	1,53	1,53	272	5,7	
	4	MED	495	2,72	2,08	475	15,7	2,38	1,93	416	12,3	1,70	1,70	299	6,8	1,40	1,40	248	4,8	
	3		420	2,38	1,80	415	12,3	2,08	1,68	363	9,7	1,48	1,48	260	5,3	1,22	1,22	215	3,8	
	2	MIN	315	1,85	1,39	322	7,9	1,62	1,29	282	6,2	1,11	1,09	194	3,2	0,94	0,94	165	2,4	
	1		250	1,51	1,13	263	5,5	1,32	1,05	230	4,4	0,91	0,88	160	2,3	0,76	0,76	134	1,6	
CRC 64	6		830	4,27	3,33	750	30,7	3,70	3,09	652	23,9	2,72	2,72	483	13,9	2,24	2,24	401	9,9	
	5	MAX	760	3,99	3,09	700	27,2	3,46	2,87	609	21,2	2,53	2,53	449	12,2	2,08	2,08	372	8,6	
	4		680	3,65	2,81	640	23,2	3,17	2,62	557	18,1	2,30	2,30	408	10,3	1,89	1,89	337	7,3	
	3	MED	590	3,24	2,48	566	18,7	2,82	2,30	494	14,6	2,02	2,02	356	8,1	1,67	1,67	296	5,8	
	2		505	2,83	2,15	495	14,8	2,47	2,00	433	11,6	1,75	1,75	310	6,4	1,45	1,45	258	4,5	
	1	MIN	415	2,38	1,79	416	10,9	2,08	1,66	365	8,5	1,41	1,39	249	4,3	1,21	1,21	215	3,3	
CRC 74	6	MAX	925	4,64	3,63	815	20,7	4,02	3,37	709	16,1	2,96	2,96	526	9,4	2,44	2,44	437	6,7	
	5		840	4,30	3,35	755	18,2	3,74	3,11	659	14,1	2,73	2,73	485	8,2	2,25	2,25	402	5,8	
	4	MED	735	3,86	2,98	678	15,0	3,36	2,77	592	11,7	2,43	2,43	432	6,7	2,00	2,00	358	4,7	
	3		630	3,40	2,60	597	12,0	2,96	2,42	521	9,4	2,12	2,12	377	5,2	1,75	1,75	313	3,7	
	2	MIN	535	2,98	2,27	521	9,4	2,60	2,11	456	7,4	1,86	1,86	329	4,1	1,53	1,53	272	2,9	
	1		445	2,54	1,92	444	7,1	2,22	1,78	389	5,6	1,51	1,50	267	2,8	1,30	1,30	230	2,2	
CRC 84	6	MAX	1200	5,32	4,32	937	23,2	4,58	4,02	810	17,8	3,51	3,51	626	11,2	2,87	2,87	516	7,9	
	5		1100	4,99	4,02	879	20,7	4,29	3,74	759	15,8	3,27	3,27	583	9,9	2,67	2,67	480	6,8	
	4	MED	1020	4,73	3,79	831	18,7	4,07	3,53	717	14,4	3,08	3,08	547	8,8	2,53	2,53	452	6,3	
	3		815	3,98	3,14	698	13,9	3,43	2,92	604	10,6	2,57	2,57	456	6,5	2,11	2,11	377	4,5	
	2	MIN	655	3,35	2,62	587	10,3	2,90	2,43	509	7,9	2,14	2,14	378	4,7	1,76	1,76	313	3,2	
	1		510	2,72	2,09	476	7,0	2,36	1,94	415	5,4	1,70	1,70	301	3,1	1,40	1,40	249	2,2	
CRC 94	6	MAX	1500	6,22	5,14	1101	17,1	5,33	4,78	948	13,1	4,16	4,16	746	8,5	3,39	3,39	614	5,9	
	5		1365	5,85	4,80	1032	15,3	5,02	4,47	889	11,7	3,90	3,90	697	7,5	3,18	3,18	573	5,3	
	4	MED	1210	5,38	4,37	948	13,1	4,62	4,06	817	10,1	3,55	3,55	633	6,3	2,90	2,90	521	4,4	
	3		980	4,58	3,67	807	9,9	3,95	3,41	698	7,6	2,98	2,98	531	4,7	2,44	2,44	439	3,3	
	2	MIN	830	4,03	3,18	709	7,9	3,48	2,96	614	6,1	2,61	2,61	464	3,7	2,14	2,14	384	2,6	
	1		735	3,66	2,87	643	6,7	3,16	2,67	557	5,1	2,35	2,35	418	3,1	1,93	1,93	346	2,2	

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Pc: Cooling total emission
Ps: Cooling sensible emission
Qw: Water flow rate
Dp(c): Dp Cooling

HEATING EMISSION

3 row coil units

Entering air temperature : 20 °C

			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)
Model		Vn	m³/h	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa
CRC 13	6	MAX	220	2,42	208	2,4	1,83	157	1,5	1,25	108	0,8	1,48	255	3,7	1,19	205	2,5
	5		195	2,18	187	2,0	1,66	143	1,3	1,13	97	0,7	1,33	229	3,1	1,07	184	2,1
	4	MED	175	1,99	171	1,7	1,51	130	1,1	1,03	89	0,6	1,21	208	2,6	0,98	169	1,8
	3		150	1,75	151	1,4	1,33	114	0,9	0,91	78	0,5	1,07	184	2,1	0,86	148	1,4
	2		125	1,53	132	1,1	1,17	101	0,7	0,80	69	0,4	0,94	162	1,6	0,76	131	1,1
CRC 23	1	MIN	105	1,31	113	0,8	1,00	86	0,5	0,68	58	0,3	0,80	138	1,2	0,64	110	0,9
	6		340	3,89	335	7,5	2,97	255	4,8	2,05	176	2,6	2,38	409	11,2	1,92	330	7,9
	5	MAX	295	3,44	296	6,0	2,63	226	3,9	1,82	157	2,1	2,10	361	9,1	1,70	292	6,4
	4		250	3,00	258	4,7	2,30	198	3,0	1,59	137	1,6	1,84	316	7,1	1,49	256	5,0
	3	MED	220	2,70	232	3,9	2,07	178	2,5	1,43	123	1,4	1,65	284	5,9	1,34	230	4,2
CRC 33	2		170	2,14	184	2,6	1,64	141	1,7	1,14	98	0,9	1,31	225	3,9	1,06	182	2,8
	1	MIN	145	1,90	163	2,1	1,46	126	1,4	1,01	87	0,7	1,16	200	3,2	0,94	162	2,2
	6		440	5,52	475	19,8	4,24	365	12,8	2,96	255	7,0	3,37	580	29,8	2,74	471	21,0
	5	MAX	385	4,92	423	16,1	3,78	325	10,5	2,64	227	5,8	3,00	516	24,3	2,44	420	17,1
	4		325	4,24	365	12,4	3,26	280	8,1	2,28	196	4,5	2,59	445	18,7	2,10	361	13,2
CRC 43	3	MED	270	3,61	310	9,4	2,78	239	6,1	1,95	168	3,4	2,21	380	14,1	1,79	308	10,0
	2	MIN	235	3,14	270	7,3	2,42	208	4,8	1,70	146	2,6	1,92	330	11,0	1,56	268	7,8
	1		185	2,54	218	5,1	1,96	169	3,3	1,38	119	1,8	1,55	267	7,6	1,26	217	5,4
	6		570	6,87	591	29,1	5,27	453	18,8	3,67	316	10,3	4,20	722	43,8	3,41	587	30,8
	5	MAX	485	6,00	516	22,9	4,60	396	14,8	3,21	276	8,1	3,66	630	34,4	2,97	511	24,3
CRC 53	4		400	5,08	437	17,1	3,90	335	11,1	2,73	235	6,1	3,10	533	25,7	2,52	433	18,2
	3	MED	335	4,36	375	13,1	3,36	289	8,5	2,36	203	4,7	2,68	461	19,9	2,18	375	14,0
	2	MIN	265	3,51	302	8,9	2,70	232	5,8	1,89	163	3,2	2,14	368	13,4	1,74	299	9,5
	1		185	2,51	216	5,0	1,94	167	3,2	1,36	117	1,8	1,54	265	7,5	1,25	215	5,3
	6	MAX	650	7,57	651	13,5	5,81	500	8,7	4,04	347	4,7	4,62	795	20,2	3,75	645	14,2
CRC 63	5		545	6,54	562	10,4	5,02	432	6,7	3,49	300	3,7	3,99	686	15,6	3,24	557	11,0
	4	MED	495	6,04	519	9,0	4,64	399	5,9	3,23	278	3,2	3,69	635	13,6	3,00	516	9,6
	3		420	5,26	452	7,1	4,04	347	4,6	2,82	243	2,5	3,21	552	10,6	2,61	449	7,5
	2	MIN	315	4,07	350	4,5	3,13	269	2,9	2,19	188	1,6	2,49	428	6,8	2,02	347	4,8
	1		250	3,32	286	3,2	2,56	220	2,1	1,79	154	1,1	2,03	349	4,8	1,65	284	3,4
CRC 73	6		830	9,22	793	19,0	7,06	607	12,3	4,91	422	6,7	5,63	968	28,6	4,56	784	20,1
	5	MAX	760	8,61	740	16,9	6,59	567	10,9	4,58	394	5,9	5,26	905	25,3	4,26	733	17,8
	4		680	7,87	677	14,4	6,03	519	9,3	4,20	361	5,1	4,81	827	21,7	3,90	671	15,2
	3	MED	590	6,96	599	11,6	5,34	459	7,5	3,71	319	4,1	4,25	731	17,4	3,45	593	12,3
	2		505	6,15	529	9,3	4,72	406	6,0	3,29	283	3,3	3,76	647	14,0	3,05	525	9,9
CRC 83	1	MIN	415	5,17	445	6,9	3,97	341	4,4	2,77	238	2,4	3,15	542	10,3	2,56	440	7,3
	6	MAX	925	10,55	907	28,1	8,10	697	18,2	5,64	485	10,0	6,44	1108	42,2	5,23	900	29,7
	5		840	9,76	839	24,5	7,49	644	15,8	5,22	449	8,7	5,96	1025	36,8	4,83	831	25,9
	4	MED	735	8,73	751	20,1	6,71	577	13,0	4,68	402	7,2	5,33	917	30,3	4,33	745	21,3
	3		630	7,67	660	16,0	5,93	510	10,5	4,15	357	5,8	4,71	810	24,4	3,83	659	17,2
CRC 93	2	MIN	535	6,72	578	12,7	5,17	445	8,3	3,62	311	4,5	4,11	707	19,1	3,34	574	13,5
	1		445	5,71	491	9,5	4,39	378	6,2	3,08	265	3,4	3,49	600	14,3	2,83	487	10,1
	6	MAX	1200	13,25	1140	18,5	10,13	871	11,9	7,01	603	6,5	8,09	1391	27,9	6,55	1127	19,6
	5		1100	12,36	1063	16,4	9,45	813	10,6	6,55	563	5,7	7,55	1299	24,7	6,11	1051	17,3
	4	MED	1020	11,63	1000	14,7	8,90	765	9,5	6,17	531	5,2	7,10	1221	22,2	5,75	989	15,6
CRC 103	3		815	9,67	832	10,6	7,40	636	6,9	5,14	442	3,7	5,90	1015	16,0	4,78	822	11,3
	2	MIN	655	8,11	697	7,8	6,22	535	5,1	4,33	372	2,8	4,96	853	11,8	4,02	691	8,3
	1		510	6,49	558	5,3	4,98	428	3,4	3,47	298	1,9	3,97	683	7,9	3,22	554	5,6
	6	MAX	1500	15,74	1354	25,1	12,03	1035	16,1	8,31	715	8,7	9,61	1653	37,8	7,78	1338	37,0
	5		1365	14,70	1264	22,3	11,23	966	14,3	7,77	668	7,7	8,98	1545	33,5	7,26	1249	33,0
CRC 113	4	MED	1210	13,39	1152	18,9	10,24	881	12,1	7,09	610	6,6	8,18	1407	28,4	6,62	1139	27,8
	3		980	11,29	971	14,0	8,64	743	9,0	5,99	515	4,9	6,89	1185	21,0	5,58	960	21,1
	2	MIN	830	9,82	845	11,0	7,52	647	7,1	5,22	449	3,8	6,00	1032	16,5	4,86	836	16,2
	1		735	8,87	763	9,2	6,85	589	6,0	4,76	409	3,3	5,46	939	13,9	4,42	760	12,9
	6	MAX	1500	15,74	1354	25,1	12,03	1035	16,1	8,31	715	8,7	9,61	1653	37,8	7,78	1338	37,0

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h): Dp Heating

4 row coil units

Entering air temperature : 20 °C

			WT: 70 / 60 °C				WT: 60 / 50 °C			WT: 50 / 40 °C			WT: 50 / 45 °C			WT: 45 / 40 °C		
			Qv	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)	Ph	Qw	Dp(h)
Model		Vn	m³/h	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa
CRC 14	6	MAX	220	2,63	226	4,9	2,00	172	3,1	1,38	119	1,7	1,60	275	7,3	1,30	224	5,1
	5		195	2,36	203	4,0	1,80	155	2,6	1,24	107	1,4	1,44	248	6,1	1,17	201	4,3
	4	MED	175	2,15	185	3,4	1,64	141	2,2	1,14	98	1,2	1,32	227	5,2	1,06	182	3,6
	3		150	1,86	160	2,7	1,43	123	1,7	0,99	85	0,9	1,14	196	4,0	0,92	158	2,8
	2		125	1,62	139	2,1	1,24	107	1,3	0,86	74	0,7	0,99	170	3,1	0,80	138	2,2
	1	MIN	105	1,38	119	1,6	1,06	91	1,0	0,73	63	0,5	0,84	144	2,4	0,68	117	1,7
CRC 24	6		340	4,19	360	14,0	3,22	277	9,0	2,24	193	4,9	2,56	440	21,0	2,08	358	14,8
	5	MAX	295	3,69	317	11,1	2,83	243	7,2	1,97	169	3,9	2,25	387	16,7	1,83	315	11,8
	4		250	3,22	277	8,7	2,47	212	5,7	1,72	148	3,1	1,97	339	13,2	1,60	275	9,3
	3	MED	220	2,88	248	7,2	2,21	190	4,7	1,54	132	2,6	1,76	303	10,8	1,43	246	7,6
	2		170	2,24	193	4,6	1,73	149	3,0	1,21	104	1,7	1,37	236	7,0	1,11	191	4,9
	1	MIN	145	1,98	170	3,7	1,53	132	2,4	1,07	92	1,3	1,21	208	5,6	0,99	170	4,0
CRC 34	6		440	5,80	499	10,8	4,46	384	7,0	3,12	268	3,9	3,55	611	16,3	2,88	495	11,5
	5	MAX	385	5,14	442	8,7	3,96	341	5,7	2,77	238	3,1	3,14	540	13,2	2,56	440	9,3
	4		325	4,40	378	6,6	3,39	292	4,3	2,38	205	2,4	2,69	463	10,0	2,19	377	7,1
	3	MED	270	3,73	321	5,0	2,87	247	3,2	2,02	174	1,8	2,28	392	7,5	1,85	318	5,3
	2	MIN	235	3,23	278	3,9	2,49	214	2,5	1,75	151	1,4	1,98	341	5,8	1,61	277	4,1
	1		185	2,60	224	2,6	2,01	173	1,7	1,41	121	1,0	1,59	273	4,0	1,30	224	2,8
CRC 44	6		570	7,30	628	15,4	5,60	482	10,0	3,90	335	5,5	4,46	767	23,2	3,62	623	16,4
	5	MAX	485	6,33	544	12,0	4,86	418	7,8	3,39	292	4,3	3,87	666	18,1	3,14	540	12,8
	4		400	5,32	458	8,9	4,09	352	5,8	2,86	246	3,2	3,25	559	13,3	2,64	454	9,4
	3	MED	335	4,56	392	6,8	3,51	302	4,4	2,46	212	2,4	2,79	480	10,2	2,27	390	7,2
	2	MIN	265	3,62	311	4,5	2,79	240	2,9	1,96	169	1,6	2,21	380	6,8	1,80	310	4,8
	1		185	2,57	221	2,5	1,99	171	1,6	1,40	120	0,9	1,57	270	3,7	1,28	220	2,6
CRC 54	6	MAX	650	8,07	694	23,7	6,21	534	15,4	4,34	373	8,5	4,93	848	35,7	4,01	690	25,2
	5		545	6,97	599	18,3	5,36	461	11,9	3,76	323	6,6	4,26	733	27,6	3,46	595	19,5
	4	MED	495	6,37	548	15,6	4,90	421	10,2	3,44	296	5,6	3,89	669	23,5	3,16	544	16,6
	3		420	5,51	474	12,1	4,24	365	7,9	2,97	255	4,4	3,36	578	18,2	2,74	471	12,9
	2	MIN	315	4,23	364	7,6	3,26	280	5,0	2,29	197	2,8	2,58	444	11,4	2,10	361	8,1
	1		250	3,44	296	5,3	2,65	228	3,4	1,87	161	1,9	2,10	361	7,9	1,71	294	5,6
CRC 64	6		830	10,68	918	34,1	8,22	707	22,2	5,75	495	12,2	6,53	1123	51,4	5,31	913	36,3
	5	MAX	760	9,90	851	29,9	7,62	655	19,4	5,34	459	10,7	6,05	1041	44,9	4,92	846	31,8
	4		680	8,98	772	25,2	6,92	595	16,4	4,85	417	9,1	5,49	944	37,9	4,46	767	26,8
	3	MED	590	7,85	675	19,8	6,05	520	12,9	4,24	365	7,2	4,80	826	29,9	3,90	671	21,1
	2		505	6,81	586	15,5	5,25	452	10,1	3,69	317	5,6	4,17	717	23,3	3,39	583	16,5
	1	MIN	415	5,66	487	11,2	4,37	376	7,3	3,07	264	4,1	3,46	595	16,8	2,82	485	11,9
CRC 74	6	MAX	925	11,26	968	21,9	8,65	744	14,2	6,05	520	7,8	6,88	1183	32,8	5,59	961	23,2
	5		840	10,38	893	18,9	7,98	686	12,3	5,58	480	6,8	6,34	1090	28,5	5,15	886	20,1
	4	MED	735	9,30	800	15,6	7,16	616	10,2	5,01	431	5,6	5,68	977	23,5	4,62	795	16,6
	3		630	8,12	698	12,3	6,25	538	8,0	4,38	377	4,4	4,96	853	18,5	4,03	693	13,1
	2	MIN	535	7,02	604	9,5	5,41	465	6,2	3,79	326	3,4	4,29	738	14,3	3,49	600	10,1
	1		445	5,93	510	7,1	4,57	393	4,6	3,21	276	2,6	3,63	624	10,6	2,95	507	7,5
CRC 84	6	MAX	1200	14,36	1235	29,3	11,00	946	18,9	7,63	656	10,3	8,77	1508	44,1	7,11	1223	31,0
	5		1100	13,34	1147	25,7	10,22	879	16,6	7,10	611	9,0	8,15	1402	38,9	6,60	1135	27,4
	4	MED	1020	12,52	1077	23,0	9,60	826	14,9	6,67	574	8,1	7,65	1316	34,7	6,20	1066	24,5
	3		815	10,37	892	16,6	7,96	685	10,8	5,54	476	5,9	6,34	1090	24,8	5,14	884	17,6
	2	MIN	655	8,55	735	11,9	6,57	565	7,6	4,58	394	4,1	5,23	900	17,8	4,24	729	12,6
	1		510	6,78	583	7,9	5,22	449	5,0	3,65	314	2,9	4,15	714	11,9	3,37	580	8,3
CRC 94	6	MAX	1500	17,23	1482	22,5	13,18	1133	14,5	9,13	785	7,8	10,53	1811	33,8	8,52	1465	23,7
	5		1365	16,02	1378	19,8	12,26	1054	12,7	8,50	731	6,9	9,79	1684	29,7	7,93	1364	20,9
	4	MED	1210	14,52	1249	16,6	11,12	956	10,7	7,71	663	5,8	8,87	1526	25,0	7,18	1235	17,6
	3		980	12,13	1043	12,1	9,30	800	7,8	6,46	556	4,3	7,41	1275	18,2	6,01	1034	12,8
	2	MIN	830	10,55	907	9,5	8,09	696	6,1	5,63	484	3,4	6,44	1108	14,3	5,23	900	10,0
	1		735	9,47	814	7,8	7,27	625	5,1	5,07	436	2,8	5,79	996	11,8	4,70	808	8,3

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h): Dp Heating

1 row additional coil units

For 3 or 4 row versions (3+1 or 4+1 rows)

Entering air temperature : 20 °C

Model	Vn	Qv m³/h	WT: 80 / 70 °C				WT: 75 / 65 °C				WT: 70 / 60 °C				WT: 65 / 55 °C				WT: 60 / 50 °C				WT: 55 / 45 °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	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa
CRC 1	6	MAX	220	1,32	114	2,4	1,18	101	2,0	1,04	89	1,6	0,91	78	1,3	0,77	66	1,0	0,63	54	0,7					
	5		195	1,21	104	2,1	1,08	93	1,7	0,96	83	1,4	0,83	71	1,1	0,71	61	0,9	0,58	50	0,6					
	4	MED	175	1,12	96	1,8	1,00	86	1,5	0,89	77	1,2	0,77	66	1,0	0,65	56	0,7	0,54	46	0,5					
	3		150	1,00	86	1,5	0,90	77	1,2	0,79	68	1,0	0,69	59	0,8	0,59	51	0,6	0,48	41	0,4					
	2		125	0,90	77	1,2	0,81	70	1,0	0,71	61	0,8	0,62	53	0,7	0,53	46	0,5	0,44	38	0,4					
	1	MIN	105	0,79	68	1,0	0,71	61	0,8	0,63	54	0,7	0,55	47	0,5	0,47	40	0,4	0,39	34	0,3					
CRC 2	6		340	2,11	181	6,6	1,90	163	5,6	1,68	144	4,6	1,47	126	3,7	1,26	108	2,8	1,05	90	2,1					
	5	MAX	295	1,90	163	5,5	1,71	147	4,7	1,52	131	3,8	1,33	114	3,1	1,14	98	2,4	0,95	82	1,8					
	4		250	1,70	146	4,5	1,53	132	3,8	1,36	117	3,2	1,19	102	2,5	1,02	88	2,0	0,85	73	1,4					
	3	MED	220	1,56	134	3,9	1,41	121	3,3	1,25	108	2,7	1,09	94	2,2	0,94	81	1,7	0,78	67	1,2					
	2		170	1,30	112	2,8	1,17	101	2,4	1,04	89	2,0	0,91	78	1,6	0,78	67	1,2	0,65	56	0,9					
	1	MIN	145	1,18	101	2,4	1,06	91	2,0	0,94	81	1,7	0,83	71	1,3	0,71	61	1,0	0,59	51	0,8					
CRC 3	6		440	3,08	265	16,2	2,78	239	13,7	2,48	213	11,4	2,18	187	9,2	1,88	162	7,2	1,57	135	5,4					
	5	MAX	385	2,81	242	13,8	2,54	218	11,7	2,26	194	9,7	1,99	171	7,8	1,71	147	6,1	1,44	124	4,6					
	4		325	2,49	214	11,1	2,25	194	9,4	2,00	172	7,8	1,76	151	6,3	1,52	131	4,9	1,28	110	3,7					
	3	MED	270	2,20	189	9,0	1,98	170	7,6	1,77	152	6,3	1,56	134	5,1	1,34	115	4,0	1,13	97	3,0					
	2		235	1,98	170	7,4	1,78	153	6,3	1,59	137	5,2	1,40	120	4,2	1,21	104	3,3	1,02	88	2,5					
	1	MIN	185	1,68	144	5,6	1,52	131	4,7	1,35	116	3,9	1,19	102	3,2	1,03	89	2,5	0,86	74	1,9					
CRC 4	6		570	3,68	316	22,1	3,32	286	18,7	2,96	255	15,5	2,60	224	15,3	2,24	193	9,8	1,88	162	7,3					
	5	MAX	485	3,30	284	18,2	2,97	255	15,4	2,65	228	12,8	2,33	200	12,5	2,00	172	8,1	1,68	144	6,0					
	4		400	2,89	249	14,4	2,60	224	12,2	2,32	200	10,1	2,04	175	10,0	1,76	151	6,4	1,47	126	4,8					
	3	MED	335	2,56	220	11,7	2,31	199	9,9	2,06	177	8,2	1,81	156	8,0	1,56	134	5,2	1,31	113	3,9					
	2		265	2,15	185	8,6	1,94	167	7,3	1,73	149	6,0	1,52	131	6,0	1,31	113	3,8	1,10	95	2,9					
	1	MIN	185	1,67	144	5,5	1,50	129	4,7	1,34	115	3,9	1,18	101	3,8	1,02	88	2,5	0,86	74	1,8					
CRC 5	6	MAX	650	4,28	368	5,6	3,85	331	4,8	3,42	294	3,9	3,00	258	3,2	2,57	221	2,4	2,14	184	1,8					
	5		545	3,79	326	4,6	3,41	293	3,8	3,03	261	3,2	2,66	229	2,6	2,28	196	2,0	1,90	163	1,5					
	4	MED	495	3,54	304	4,0	3,18	273	3,4	2,83	243	2,8	2,48	213	2,3	2,13	183	1,8	1,78	153	1,3					
	3		420	3,16	272	3,3	2,85	245	2,8	2,53	218	2,3	2,22	191	1,9	1,90	163	1,4	1,59	137	1,1					
	2	MIN	315	2,59	223	2,3	2,33	200	2,0	2,07	178	1,6	1,82	157	1,3	1,56	134	1,0	1,30	112	0,8					
	1		250	2,20	189	1,8	1,99	171	1,5	1,77	152	1,2	1,55	133	1,0	1,33	114	0,8	1,12	96	0,6					
CRC 6	6		830	5,05	434	7,5	4,54	390	6,4	4,04	347	5,3	3,53	304	4,2	3,03	261	3,3	2,53	218	2,4					
	5	MAX	760	4,77	410	6,8	4,29	369	5,8	3,81	328	4,8	3,33	286	3,8	2,86	246	2,9	2,38	205	2,2					
	4		680	4,42	380	6,0	3,98	342	5,0	3,54	304	4,1	3,09	266	3,3	2,65	228	2,6	2,21	190	1,9					
	3	MED	590	3,99	343	5,0	3,59	309	4,2	3,19	274	3,5	2,79	240	2,8	2,40	206	2,1	2,00	172	1,6					
	2		505	3,59	309	4,1	3,23	278	3,5	2,87	247	2,9	2,51	216	2,3	2,16	186	1,8	1,80	155	1,3					
	1	MIN	415	3,12	268	3,2	2,81	242	2,7	2,50	215	2,3	2,19	188	1,8	1,88	162	1,4	1,57	135	1,1					
CRC 7	6	MAX	925	5,97	513	11,9	5,38	463	10,1	4,79	412	8,3	3,53	304	5,9	3,61	310	5,2	3,03	261	3,9					
	5		840	5,59	481	10,6	5,04	433	9,0	4,49	386	7,4	3,33	286	5,3	3,39	292	4,7	2,84	244	3,5					
	4	MED	735	5,10	439	9,0	4,59	395	7,6	4,09	352	6,3	3,09	266	4,7	3,09	266	4,0	2,59	223	3,0					
	3		630	4,58	394	7,5	4,13	355	6,3	3,68	316	5,2	2,79	240	3,9	2,78	239	3,3	2,33	200	2,5					
	2	MIN	535	4,10	353	6,1	3,69	317	5,2	3,29	283	4,3	2,51	216	3,3	2,49	214	2,7	2,09	180	2,0					
	1		445	3,60	310	4,9	3,25	280	4,1	2,89	249	3,4	2,19	188	2,5	2,19	188	2,2	1,84	158	1,6					
CRC 8	6	MAX	1200	6,75	581	14,8	6,08	523	12,5	5,41	465	10,3	4,75	409	8,3	4,08	351	6,5	3,42	294	4,8					
	5		1100	6,37	548	13,3	5,74	494	11,3	5,11	439	9,3	4,48	385	7,5	3,85	331	5,9	3,23	278	4,4					
	4	MED	1020	6,05	520	12,2	5,45	469	10,3	4,86	418	8,5	4,26	366	6,9	3,66	315	5,4	3,07	264	4,0					
	3		815	5,19	446	9,3	4,68	402	7,9	4,17	359	6,5	3,66	315	5,3	3,15	271	4,1	2,64	227	3,1					
	2	MIN	655	4,48	385	7,2	4,04	347	6,1	3,60	310	5,0	3,16	272	4,1	2,72	234	3,2	2,28	196	2,4					
	1		510	3,76	323	5,3	3,39	292	4,5	3,03	261	3,7	2,66	229	3,0	2,29	197	2,3	1,92	165	1,7					
CRC 9	6	MAX	1500	7,77	668	18,9	7,00	1204	16,0	6,23	1072	13,2	5,46	939	10,7	4,69	807	8,3	3,93	676	6,2					
	5		1365	7,36	633	17,2	6,63	1140	14,5	5,90	1015	12,0	5,17	889	9,7	4,45	765	7,5	3,72	640	5,6					
	4	MED	1210	6,81	586	15,0	6,13	527	12,7	5,46	939	10,5	4,79	824	8,5	4,12	709	6,6	3,45	593	4,9					
	3		980	5,90	507	11,7	5,32	458	9,9	4,74	815	8,2	4,15	714	6,6	3,57	614	5,1	2,99	514	3,8					
	2	MIN	830	5,26	452	9,5	4,74	408	8,1	4,22	726	6,7	3,71	638	5,4	3,19	549	4,2	2,67	459	3,1					
	1		735	4,84	416	8,2	4,37	376	7,0	3,89	669	5,8	3,41	587	4,7	2,94	506	3,6	2,46	423	2,7					

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h): Dp Heating

2 row additional coil units

For 3 row versions only (3+2 rows)

Entering air temperature : 20 °C

Model	Vn	Qv m³/h	WT: 65 / 55 °C				WT: 60 / 50 °C				WT: 55 / 45 °C				WT: 50 / 40 °C				WT: 45 / 40 °C				WT: 45 / 35 °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	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa
CRC 1	6	MAX	220	1,67	144	7,1	1,44	124	5,5	1,20	103	4,1	0,97	83	2,9	0,93	160	9,1	0,74	64	1,8					
	5		195	1,52	131	6,0	1,31	113	4,7	1,10	95	3,5	0,89	77	2,5	0,85	146	7,8	0,68	58	1,6					
	4	MED	175	1,40	120	5,2	1,21	104	4,1	1,01	87	3,0	0,82	71	2,1	0,78	134	6,7	0,63	54	1,3					
	3		150	1,24	107	4,2	1,07	92	3,3	0,90	77	2,5	0,73	63	1,7	0,69	119	5,4	0,56	48	1,1					
	2		125	1,10	95	3,4	0,95	82	2,7	0,80	69	2,0	0,65	56	1,4	0,62	107	4,4	0,50	43	0,9					
CRC 2	1	MIN	105	0,97	83	2,7	0,83	71	2,1	0,70	60	1,6	0,57	49	1,1	0,54	93	3,5	0,44	38	0,7					
	6		340	2,58	222	17,9	2,23	192	14,0	1,88	162	10,6	1,53	132	7,5	1,44	248	23,1	1,18	101	4,8					
	5	MAX	295	2,32	200	14,8	2,00	172	11,6	1,69	145	8,8	1,37	118	6,2	1,30	224	19,2	1,06	91	4,0					
	4		250	2,06	177	12,0	1,78	153	9,4	1,50	129	7,1	1,22	105	5,0	1,15	198	15,5	0,94	81	3,3					
	3	MED	220	1,87	161	10,2	1,62	139	8,0	1,37	118	6,0	1,11	95	4,3	1,05	181	13,2	0,86	74	2,8					
CRC 3	2		170	1,52	131	7,1	1,32	114	5,6	1,11	95	4,2	0,91	78	3,0	0,85	146	9,1	0,70	60	1,9					
	1	MIN	145	1,39	120	6,0	1,20	103	4,7	1,01	87	3,6	0,83	71	2,5	0,78	134	7,7	0,64	55	1,6					
	6		440	3,52	303	6,3	3,04	261	5,0	2,56	220	3,7	2,00	172	2,6	1,97	339	8,2	1,59	137	1,7					
	5	MAX	385	3,19	274	5,3	2,76	237	4,2	2,32	200	3,1	1,88	162	2,2	1,79	308	6,9	1,45	125	1,4					
	4		325	2,80	241	4,2	2,42	208	3,3	2,04	175	2,5	1,66	143	1,8	1,57	270	5,5	1,27	109	1,1					
CRC 4	3	MED	270	2,45	211	3,3	2,11	181	2,6	1,78	153	2,0	1,46	126	1,4	1,38	237	4,4	1,13	97	0,9					
	2		235	2,20	189	2,8	1,90	163	2,2	1,60	138	1,6	1,30	112	1,2	1,23	212	3,6	1,00	86	0,7					
	1	MIN	185	1,82	157	2,0	1,58	136	1,6	1,33	114	1,2	1,08	93	0,8	1,02	175	2,6	0,84	72	0,5					
	6		570	4,13	355	8,4	3,56	306	6,5	2,99	257	4,9	2,42	208	3,4	2,31	397	10,8	1,86	160	2,2					
	5	MAX	485	3,78	325	7,2	3,26	280	5,6	2,74	236	4,2	2,22	191	3,0	2,11	363	9,2	1,70	146	1,9					
CRC 5	4		400	3,28	282	5,6	2,83	243	4,4	2,38	205	3,3	1,94	167	2,3	1,84	316	7,2	1,49	128	1,5					
	3	MED	335	2,89	249	4,5	2,49	214	3,5	2,10	181	2,6	1,70	146	1,9	1,61	277	5,8	1,31	113	1,2					
	2		265	2,41	207	3,2	2,08	179	2,6	1,76	151	1,9	1,43	123	1,4	1,35	232	4,2	1,10	95	0,9					
	1	MIN	185	1,81	156	2,0	1,56	134	1,5	1,32	114	1,2	1,07	92	0,8	1,01	174	2,5	0,83	71	0,5					
	6	MAX	650	5,23	450	15,6	4,52	389	12,3	3,82	329	9,3	3,11	267	6,6	2,93	504	20,2	2,41	207	4,3					
CRC 6	5		545	4,59	395	12,4	3,97	341	9,8	3,36	289	7,4	2,74	236	5,3	2,57	442	16,1	2,12	182	3,4					
	4	MED	495	4,26	366	10,9	3,68	316	8,6	3,11	267	6,5	2,54	218	4,6	2,38	409	14,1	1,97	169	3,0					
	3		420	3,76	323	8,7	3,26	280	6,9	2,75	237	5,2	2,25	194	3,7	2,11	363	11,3	1,74	150	2,4					
	2	MIN	315	3,03	261	6,0	2,62	225	4,7	2,22	191	3,6	1,82	157	2,6	1,70	292	7,7	1,41	121	1,7					
	1		250	2,52	217	4,3	2,18	187	3,4	1,85	159	2,6	1,51	130	1,8	1,41	243	5,6	1,18	101	1,2					
CRC 7	6		830	6,22	535	21,2	5,38	463	16,6	4,54	390	12,5	3,70	318	8,9	3,48	599	27,4	2,86	246	5,8					
	5	MAX	760	5,86	504	19,0	5,06	435	15,0	4,27	367	11,3	3,48	299	8,0	3,28	564	24,6	2,69	231	5,2					
	4		680	5,41	465	16,6	4,68	402	13,0	3,95	340	9,8	3,22	277	7,0	3,03	521	21,4	2,49	214	4,5					
	3	MED	590	4,85	417	13,7	4,20	361	10,7	3,54	304	8,1	2,89	249	5,7	2,72	468	17,7	2,24	193	3,8					
	2		505	4,32	372	11,2	3,74	322	8,8	3,16	272	6,6	2,58	222	4,8	2,42	416	14,4	2,00	172	3,1					
CRC 8	1	MIN	415	3,70	318	8,5	3,21	276	6,7	2,71	233	5,1	2,21	190	3,6	2,07	356	11,0	1,72	148	2,4					
	6	MAX	925	7,30	628	33,3	6,32	544	26,3	5,35	460	19,9	4,37	376	14,2	4,08	702	43,1	3,40	292	9,3					
	5		840	6,81	586	29,5	5,90	507	23,3	4,99	429	17,6	4,08	351	12,6	3,81	655	38,2	3,17	273	8,2					
	4	MED	735	6,17	531	24,8	5,34	459	19,6	4,52	389	14,8	3,70	318	10,6	3,45	593	32,1	2,88	248	6,9					
	3		630	5,49	472	20,2	4,76	409	16,0	4,03	347	12,1	3,30	284	8,7	3,07	528	26,2	2,57	221	5,7					
CRC 9	2	MIN	535	4,85	417	16,3	4,21	362	12,9	3,57	307	9,8	2,92	251	7,0	2,72	468	21,1	2,27	195	4,6					
	1		445	4,24	365	12,8	3,68	316	10,2	3,12	268	7,7	2,56	220	5,5	2,38	409	16,6	1,99	171	3,6					
	6	MAX	1200	8,76	753	46,0	7,58	652	36,2	6,41	551	27,4	5,24	451	19,6	4,90	843	59,5	4,07	350	12,8					
	5		1100	8,25	710	41,4	7,14	614	32,6	6,04	519	24,7	4,94	425	17,6	4,62	795	53,5	3,83	329	11,5					
	4	MED	1020	7,82	673	37,7	6,78	583	29,7	5,73	493	22,5	4,69	403	16,1	4,38	753	48,8	3,64	313	10,5					
CRC 10	3		815	6,65	572	28,3	5,76	495	22,3	4,87	419	16,9	3,99	343	12,1	3,72	640	36,6	3,10	267	7,9					
	2	MIN	655	5,66	487	21,3	4,91	422	16,9	4,16	358	12,8	3,40	292	9,1	3,17	545	27,6	2,65	228	6,0					
	1		510	4,66	401	15,1	4,04	347	12,0	3,42	294	9,1	2,81	242	6,5	2,61	449	19,6	2,19	188	4,3					
	6	MAX	1500	10,18	875	59,9	8,81	758	47,2	7,45	641	35,7	6,08	523	25,4	-	-	-	4,72	406	16,6					
	5		1365	9,59	825	53,9	8,30	714	42,5	7,02	604	32,1	5,73	493	22,9	-	-	-	4,45	383	14,9					
CRC 11	4	MED	1210	8,84	760	46,8	7,65	658	36,8	6,47	556	27,8	5,29	455	19,9	-	-	-	4,10	353	13,0					
	3		980	7,62	655	36,0	6,60	568	28,4	5,58	480	21,5	4,57	393	15,3	-	-	-	3,55	305	10,0					
	2	MIN	830	6,74	580	29,0	5,84	502	22,9	4,94	425	17,3	4,04	347	12,4	-	-	-	3,14	270	8,1					
	1		735	6,17	531	24,8	5,34	459	19,6	4,52	389	14,8	3,70	318	10,6	-	-	-	2,88	248	6,9					

WT: Water temperature
Vn: Nominal speeds
Qv: Air flow
Ph: Heating emission
Qw: Water flow rate
Dp(h): Dp Heating

AIR FLOW AND CORRECTION FACTORS

Air flow and correction factors for emission with different available pressures

Model	Speed		Qv (m³/h)						K1						K2					
			Ap (Pa)						Ap (Pa)						Ap (Pa)					
			0	10	20	30	40	50	0	10	20	30	40	50	0	10	20	30	40	50
1	6	MAX	220	199	179	154	128	100	1,00	0,92	0,84	0,75	0,66	0,53	1,00	0,91	0,83	0,73	0,64	0,51
	5		195	174	152	130	102	72	1,00	0,91	0,82	0,72	0,60	-	1,00	0,90	0,80	0,71	0,58	-
	4	MED	175	151	129	100	74	-	1,00	0,88	0,78	0,65	0,50	-	1,00	0,87	0,77	0,63	0,48	-
	3		150	123	94	69	-	-	1,00	0,85	0,69	0,54	-	-	1,00	0,84	0,67	0,52	-	-
	2		125	96	63	-	-	-	1,00	0,81	0,58	-	-	-	1,00	0,79	0,56	-	-	-
	1	MIN	105	70	43	-	-	-	1,00	0,73	0,49	-	-	-	1,00	0,71	0,47	-	-	-
2	6		340	312	287	254	218	180	1,00	0,93	0,87	0,79	0,71	0,61	1,00	0,92	0,85	0,77	0,69	0,59
	5	MAX	295	260	233	195	163	117	1,00	0,90	0,83	0,72	0,63	0,48	1,00	0,89	0,81	0,70	0,61	0,45
	4		250	218	180	145	108	-	1,00	0,89	0,77	0,65	0,51	-	1,00	0,88	0,75	0,63	0,49	-
	3	MED	220	177	135	98	-	-	1,00	0,84	0,68	0,52	-	-	1,00	0,82	0,66	0,50	-	-
	2		170	119	92	-	-	-	1,00	0,75	0,62	-	-	-	1,00	0,73	0,60	-	-	-
	1	MIN	145	83	45	-	-	-	1,00	0,64	0,37	-	-	-	1,00	0,62	0,35	-	-	-
3	6		440	413	380	348	314	270	1,00	0,95	0,88	0,83	0,76	0,68	1,00	0,94	0,87	0,81	0,75	0,66
	5	MAX	385	351	320	287	249	208	1,00	0,93	0,86	0,79	0,71	0,62	1,00	0,92	0,84	0,77	0,69	0,60
	4		325	284	244	209	179	-	1,00	0,89	0,79	0,71	0,63	-	1,00	0,88	0,78	0,69	0,61	-
	3	MED	270	212	178	141	-	-	1,00	1,17	0,72	0,60	-	-	1,00	1,20	0,70	0,58	-	-
	2	MIN	235	177	138	-	-	-	1,00	0,79	0,66	-	-	-	1,00	0,78	0,64	-	-	-
	1		185	125	75	-	-	-	1,00	0,73	0,48	-	-	-	1,00	0,72	0,46	-	-	-
4	6		570	527	472	432	381	314	1,00	0,94	0,86	0,80	0,73	0,63	1,00	0,93	0,84	0,78	0,71	0,61
	5	MAX	485	437	387	340	282	230	1,00	0,92	0,83	0,75	0,65	0,55	1,00	0,91	0,82	0,74	0,63	0,53
	4		400	343	293	238	187	-	1,00	0,88	0,78	0,67	0,55	-	1,00	0,87	0,76	0,65	0,53	-
	3	MED	335	275	215	159	-	-	1,00	0,85	0,71	0,56	-	-	1,00	0,83	0,69	0,54	-	-
	2	MIN	265	176	124	-	-	-	1,00	0,72	0,55	-	-	-	1,00	0,70	0,53	-	-	-
	1		185	78	-	-	-	-	1,00	0,50	-	-	-	-	1,00	0,48	-	-	-	-
5	6	MAX	650	590	532	472	405	341	1,00	0,92	0,85	0,77	0,69	0,60	1,00	0,91	0,83	0,76	0,67	0,58
	5		545	480	413	341	283	230	1,00	0,90	0,80	0,69	0,60	-	1,00	0,89	0,78	0,67	0,58	-
	4	MED	495	420	343	275	226	-	1,00	0,87	0,75	0,63	0,54	-	1,00	0,86	0,73	0,61	0,52	-
	3		420	333	247	192	-	-	1,00	0,83	0,66	0,54	-	-	1,00	0,81	0,64	0,52	-	-
	2	MIN	315	205	135	-	-	-	1,00	0,71	0,51	-	-	-	1,00	0,69	0,49	-	-	-
	1		250	150	-	-	-	-	1,00	0,67	-	-	-	-	1,00	0,65	-	-	-	-
6	6		830	771	719	648	585	521	1,00	0,94	0,89	0,82	0,76	0,69	1,00	0,93	0,87	0,80	0,74	0,67
	5	MAX	760	705	639	581	514	446	1,00	0,94	0,87	0,81	0,73	0,66	1,00	0,93	0,85	0,79	0,72	0,64
	4		680	592	555	503	436	360	1,00	0,89	0,85	0,79	0,70	0,61	1,00	0,88	0,83	0,77	0,69	0,59
	3	MED	590	524	466	411	347	282	1,00	0,91	0,83	0,75	0,66	0,56	1,00	0,89	0,81	0,73	0,64	0,54
	2		505	430	362	298	244	-	1,00	0,88	0,77	0,66	0,56	-	1,00	0,86	0,75	0,64	0,54	-
	1	MIN	415	332	271	-	-	-	1,00	0,83	0,71	-	-	-	1,00	0,82	0,69	-	-	-
7	6	MAX	925	873	814	748	673	593	1,00	0,95	0,90	0,84	0,78	0,70	1,00	0,95	0,89	0,83	0,76	0,69
	5		840	794	775	676	609	542	1,00	0,95	0,93	0,84	0,77	0,71	1,00	0,95	0,93	0,82	0,76	0,69
	4	MED	735	686	633	573	512	443	1,00	0,94	0,88	0,82	0,75	0,67	1,00	0,94	0,87	0,80	0,73	0,65
	3		630	580	522	470	405	352	1,00	0,93	0,86	0,79	0,71	0,63	1,00	0,92	0,84	0,77	0,69	0,61
	2	MIN	535	471	415	359	302	-	1,00	0,90	0,81	0,73	0,64	-	1,00	0,89	0,80	0,71	0,62	-
	1		445	373	318	254	-	-	1,00	0,87	0,77	0,65	-	-	1,00	0,85	0,75	0,63	-	-
8	6	MAX	1200	1138	1076	1020	952	869	1,00	0,96	0,91	0,87	0,83	0,77	1,00	0,95	0,90	0,86	0,81	0,75
	5		1100	1043	975	907	834	751	1,00	0,95	0,90	0,85	0,80	0,74	1,00	0,95	0,89	0,84	0,78	0,72
	4	MED	1020	946	885	815	736	668	1,00	0,94	0,89	0,83	0,77	0,72	1,00	0,93	0,88	0,82	0,75	0,70
	3		815	736	668	589	526	452	1,00	0,92	0,85	0,77	0,71	0,63	1,00	0,91	0,83	0,75	0,69	0,61
	2	MIN	655	556	487	385	312	-	1,00	0,87	0,79	0,66	0,56	-	1,00	0,86	0,77	0,64	0,54	-
	1		510	406	291	208	-	-	1,00	0,83	0,65	0,49	-	-	1,00	0,81	0,63	0,47	-	-
9	6	MAX	1500	1438	1387	1315	1233	1063	1,00	0,96	0,94	0,90	0,85	0,76	1,00	0,96	0,93	0,88	0,84	0,74
	5		1365	1312	1259	1190	1127	931	1,00	0,97	0,93	0,89	0,85	0,74	1,00	0,96	0,93	0,88	0,84	0,72
	4	MED	1210	1167	1114	1055	964	803	1,00	0,97	0,93	0,89	0,83	0,72	1,00	0,97	0,92	0,88	0,82	0,70
	3		980	927	873	799	724	597	1,00	0,95	0,91	0,85	0,79	0,68	1,00	0,95	0,90	0,83	0,77	0,66
	2	MIN	830	761	702	633	575	447	1,00	0,93	0,87	0,80	0,75	0,62	1,00	0,92	0,86	0,79	0,73	0,60
	1		735	662	599	525	457	-	1,00	0,91	0,85	0,77	0,69	-	1,00	0,91	0,83	0,75	0,67	-

Qv = air flow

K1 = Total cooling emission correction factors

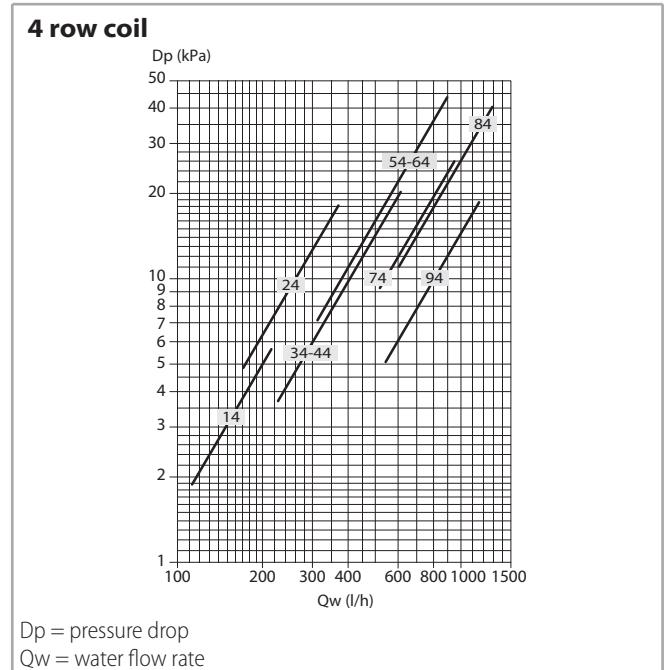
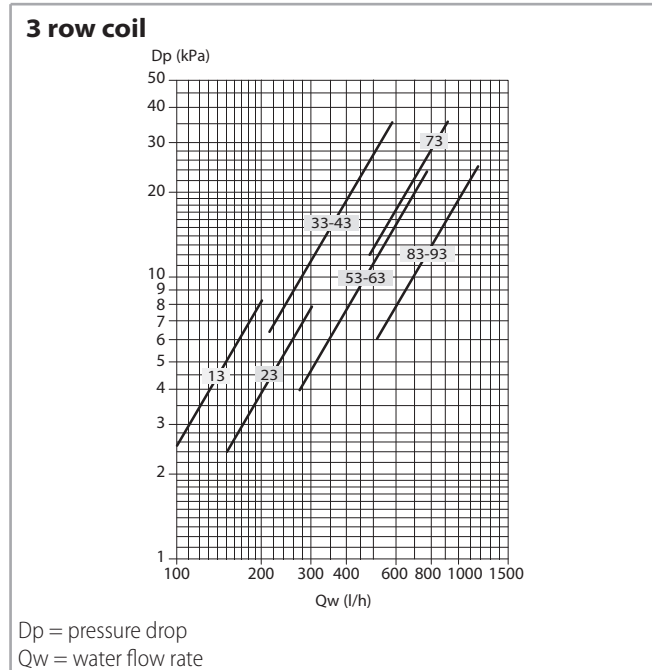
K1 = Sensible cooling emission and heating emission correction factors

Ap = Available static pressure

MAX = High speed; MED = Medium speed; MIN = Low speed

WATER SIDE PRESSURE DROP

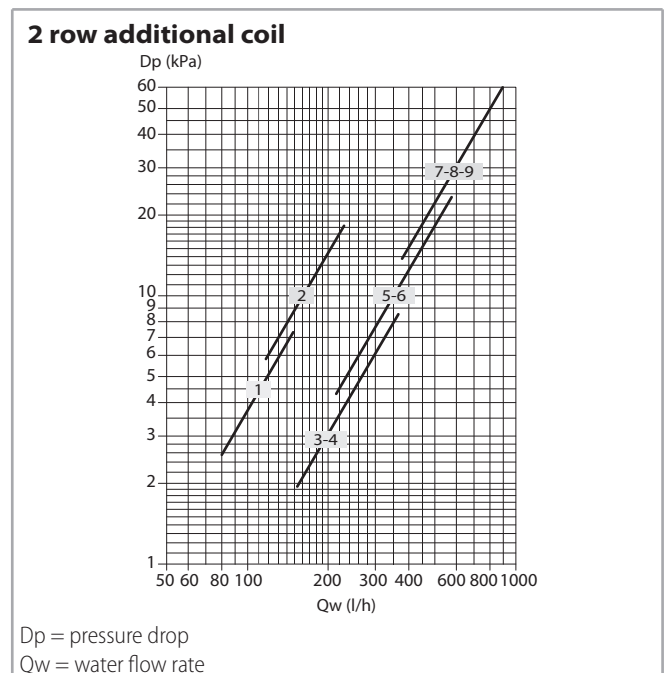
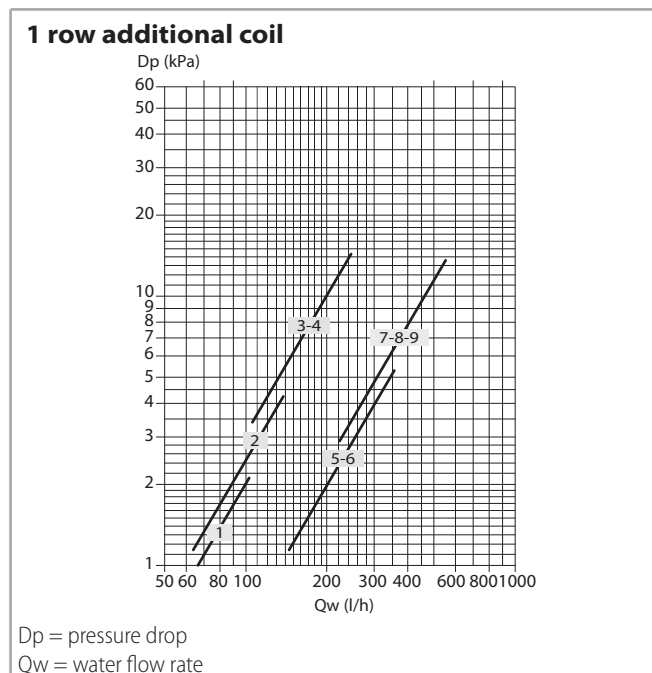
Main coil



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.

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

Additional coil



The water pressure drop figures refer to a mean water temperature of 60 °C; for different temperatures, multiply the pressure drop figures by the correction factors K.

K correction factor	Mean water temperature (°C)			
	40	50	70	80
	1,12	1,06	0,94	0,88

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

(*) for entering water temperatures below + 6 °C, contact the technical department

Attention: For the M0 units the maximum installation height is 2,8 m.

Note: on heating it must be paid attention to rooms where the floor temperature is particularly low (for example less than 6 °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.

Coils water flow limits

3 row coil

Model		CRC 13	CRC 23	CRC 33	CRC 43	CRC 53	CRC 63	CRC 73	CRC 83	CRC 93
Water flow rate Min.	l/h	100				150			200	
Water flow rate Max.	l/h	400	500	750		1000		1500	2000	

4 row coil

Model		CRC 14	CRC 24	CRC 34	CRC 44	CRC 54	CRC 64	CRC 74	CRC 84	CRC 94
Water flow rate Min.	l/h	100		150				200	300	
Water flow rate Max.	l/h	650	750	1000			1500	2000		2250

1 row additional coil

Model		CRC 13+1	CRC 23+1	CRC 33+1	CRC 43+1	CRC 53+1	CRC 63+1	CRC 73+1	CRC 83+1	CRC 93+1
Water flow rate Min.	l/h	50				100				
Water flow rate Max.	l/h	200	250	350		450	500	650	700	750

Model		CRC 14+1	CRC 24+1	CRC 34+1	CRC 44+1	CRC 54+1	CRC 64+1	CRC 74+1	CRC 84+1	CRC 94+1
Water flow rate Min.	l/h	50				100				
Water flow rate Max.	l/h	200	250	350		450	500	650	700	750

2 row additional coil

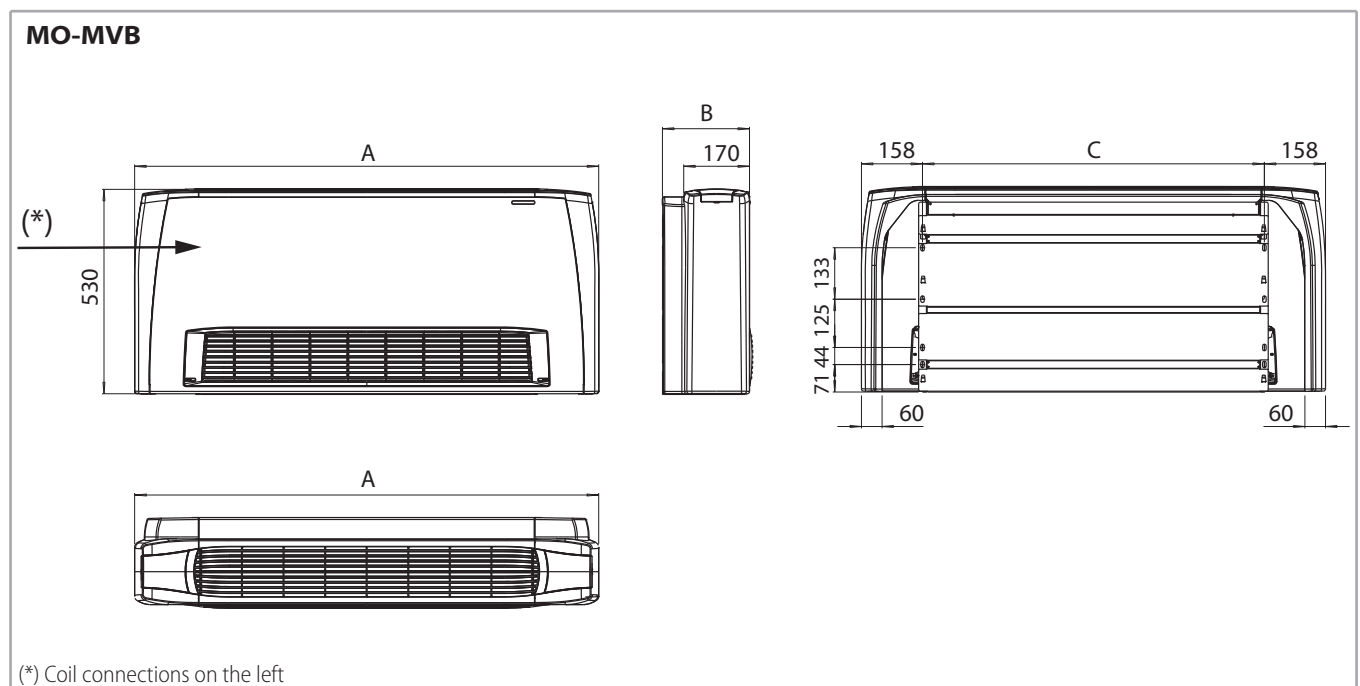
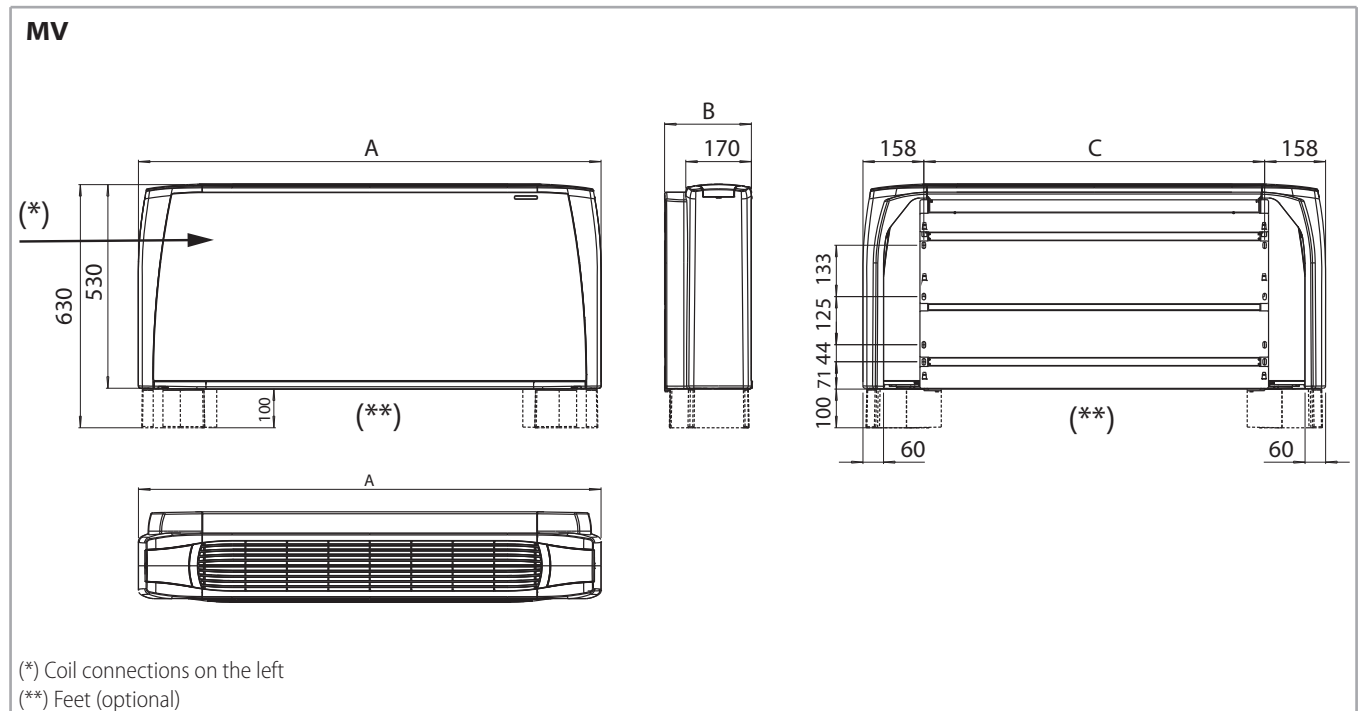
Model		CRC 13+2	CRC 23+2	CRC 33+2	CRC 43+2	CRC 53+2	CRC 63+2	CRC 73+2	CRC 83+2	CRC 93+2
Water flow rate Min.	l/h	50		100						
Water flow rate Max.	l/h	200	250	350		450	500	650	700	750

Motor electrical data - max. absorption

Model		CRC 1	CRC 2	CRC 3	CRC 4	CRC 5	CRC 6	CRC 7	CRC 8	CRC 9
Motor absorption	W	33	40	49	57	61	88	103	130	176
Current absorbed	A	0,16	0,18	0,23	0,26	0,27	0,39	0,47	0,58	0,78

DIMENSION, WEIGHT, WATER CONTENT - MV/MO-MVB VERSION

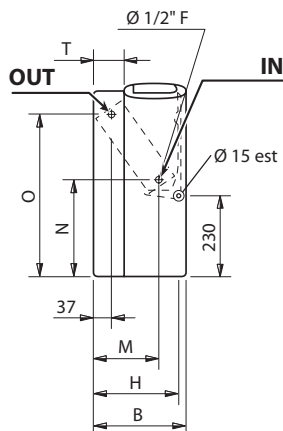
Dimensions



Model		CRC 1	CRC 2	CRC 3	CRC 4	CRC 5	CRC 6	CRC 7	CRC 8	CRC 9
A	mm	670	770	985	1200	1415				
B	mm			225					255	
C	mm	354	454	669	884	1099				

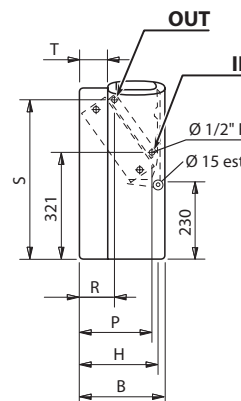
Coil connections

3 or 4 row coils



IN = Water inlet
OUT = Water outlet

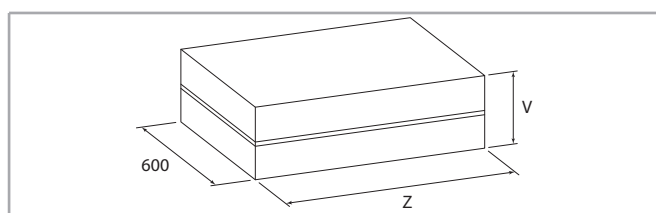
Heating additional coil (1 or 2 row coil)



IN = Water inlet
OUT = Water outlet

Model		CRC 1	CRC 2	CRC 3	CRC 4	CRC 5	CRC 6	CRC 7	CRC 8	CRC 9
B	mm				225				255	
H	mm				205				235	
M	mm				145				170	
N	mm				260				270	
O	mm				460				450	
P	mm				185				210	
R	mm				105				110	
S	mm				475				465	
T	mm				55				85	

Packed unit



Model		1	2	3	4	5	6	7	8	9
V	mm				260				290	
Z	mm	720	820	1035	1250			1465		

Weight (kg)

Weight with packaging

Model	1	2	3	4	5	6	7	8	9
3 rows	15,5	17,2	21,4	22,5	26,9	27,7	32,1	35,7	35,9
3+1 rows	16,2	18,0	22,6	23,7	28,4	29,2	33,9	37,5	37,7
3+2 rows	16,7	18,6	23,3	24,4	29,3	30,1	35,0	38,6	38,8
4 rows	16,0	18,0	22,4	23,5	28,1	29,0	33,6	37,2	37,4
4+1 rows	16,7	18,8	23,6	24,7	29,6	30,5	35,4	39,0	39,2

Weight without packaging

Model	1	2	3	4	5	6	7	8	9
3 rows	13,9	15,4	19,1	20,2	24,1	24,9	28,8	32,0	32,2
3+1 rows	14,6	16,2	20,3	21,4	25,6	26,4	30,6	33,8	34,0
3+2 rows	15,1	16,8	21,0	22,1	26,5	27,3	31,7	34,9	35,1
4 rows	14,4	16,2	20,1	21,2	25,3	26,2	30,3	33,5	33,7
4+1 rows	15,1	17,0	21,3	22,4	26,8	27,7	32,1	35,3	35,5

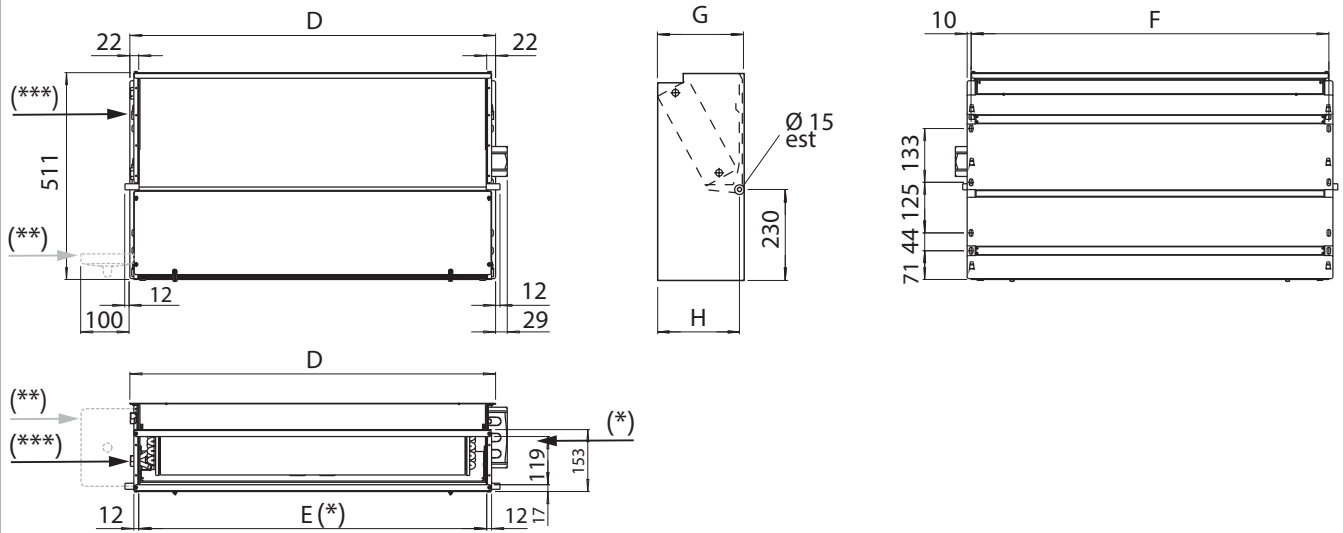
Water content (l)

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

DIMENSION, WEIGHT AND WATER CONTENT IV-IO VERSION

Dimensions

IV-IO Vertical Installation

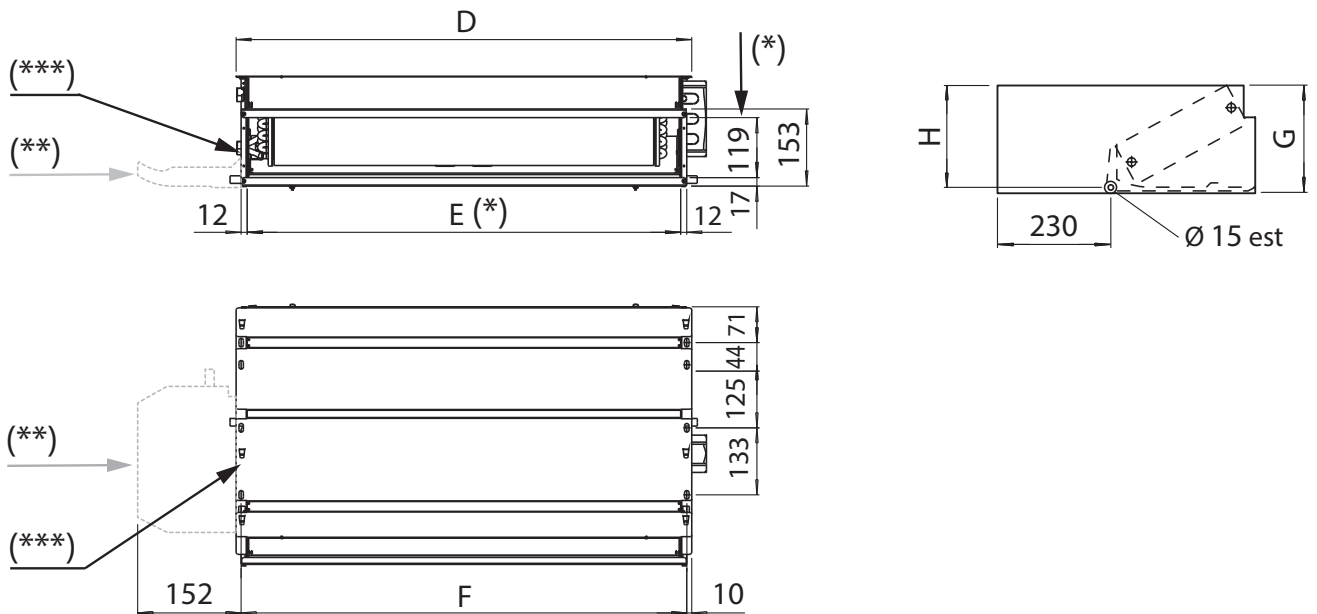


(*) = Supply frame dimension E x 119 mm

(**) = Auxiliary condensate tray (optional)

(***) = Coil connections on the left

IV-IO Horizontal Installation



(*) = Supply frame dimension E x 119 mm

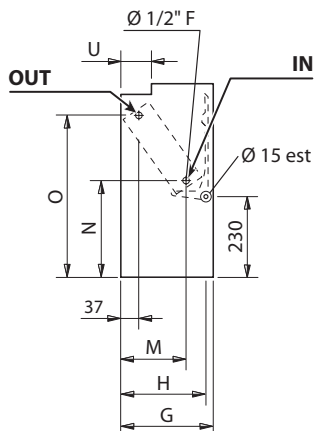
(**) = Auxiliary condensate tray (optional)

(***) = Coil connections on the left

Model		CRC 1	CRC 2	CRC 3	CRC 4	CRC 5	CRC 6	CRC 7	CRC 8	CRC 9
D	mm	374	474	689		904			1119	
E	mm	330	430	645		860			1075	
F	mm	354	454	669		884			1099	

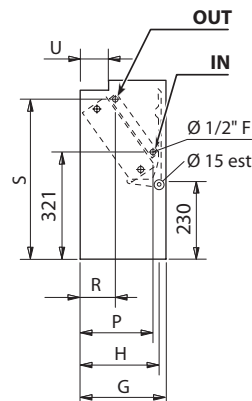
Coil connections

3 or 4 row coils



IN = Water inlet
OUT = Water outlet

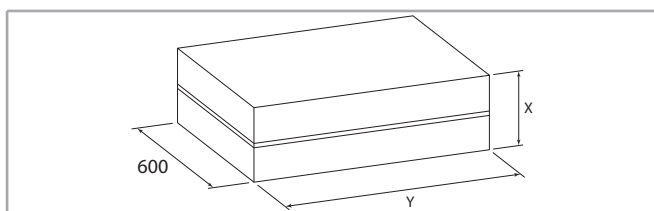
Heating additional coil (1 or 2 row coil)



IN = Water inlet
OUT = Water outlet

Model		CRC 1	CRC 2	CRC 3	CRC 4	CRC 5	CRC 6	CRC 7	CRC 8	CRC 9
G	mm				218				248	
H	mm				205				235	
M	mm				145				170	
N	mm				260				270	
O	mm				460				450	
P	mm				185				210	
R	mm				105				110	
S	mm				475				465	
U	mm				65				95	

Packed unit



Model		1	2	3	4	5	6	7	8	9
X	mm				260				290	
Y	mm	720		820		1035		1250		

Weight (kg)

Weight with packaging

Model	1	2	3	4	5	6	7	8	9
3 rows	12,2	13,6	17,1	18,1	21,9	22,8	27,0	30,2	30,4
3+1 rows	12,9	14,4	18,3	19,3	23,4	24,3	28,8	32,0	32,2
3+2 rows	13,4	15,0	19,0	20,0	24,3	25,2	29,9	33,1	33,3
4 rows	12,7	14,4	18,1	19,1	23,1	24,1	28,5	31,7	31,9
4+1 rows	13,4	15,2	19,3	20,3	24,6	25,6	30,3	33,5	33,7

Weight without packaging

Model	1	2	3	4	5	6	7	8	9
3 rows	10,6	11,8	15,3	16,3	19,6	20,5	24,2	27,1	27,3
3+1 rows	11,3	12,6	16,5	17,5	21,1	22,0	26,0	28,9	29,1
3+2 rows	11,8	13,2	17,2	18,2	22,0	22,9	27,1	30,0	30,2
4 rows	11,1	12,6	16,3	17,3	20,8	21,8	25,7	28,6	28,8
4+1 rows	11,8	13,4	17,5	18,5	22,3	23,3	27,5	30,4	30,6

Water content (l)

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

CONTROLS FITTED ON THE UNIT

All the **Carisma CRC** units can be supplied with a wide range of electronic controls to be fitted that allows managing one single unit.

The room temperature can be controlled through electronic room thermostats fitted on the unit, with different solutions according to every ambient conditions.

The options range from the basic **CB** only for 3-speed control to the **CB-T** and the **CB-C** electronic room

thermostats, that regulate the room temperature and are suitable when the user wants to set the fan speed.

The most evolved **CB-AUT** version allows both the manual and the automatic fan speed switch.

For the **Carisma CRC** units equipped with Crystall filter or electric heater, the **CB-IAQ**, **CB-R-IAQ** and the **CB-AUT-IAQ** controls are available.

Note: all the controls are described in detail in the "Fan Coil Control Range literature".

Controls

CB control



CB-IAQ control



CB-T control



CB-R-IAQ control



CB-C control



CB-AUT-IAQ control



CB-AUT control



ELECTRONIC WALL CONTROLS

All the **Carisma CRC** units can be supplied with a wide range of electronic wall controls that allows managing one single unit or several units (by using Dip-Switches or the power units).

The room temperature can be controlled through wall electronic room thermostats, with different solutions according to every ambient conditions.

The options range from the basic **WM-3V**, only for 3-speed control, to the highly sophisticated **WM-T**, **WM-TQR** and **T2T** electronic room thermostats, that regulate the room temperature and are suitable when the user wants to set the fan speed.

The most evolved **WM-AU**, **T-MB2** and **WM-503-AC-EC** versions allow both the manual and the automatic speed switch.

Note: all the controls are described in detail in the "Fan Coil Control Range literature".

WM-3V control



230 V 50 Hz

WM-T control



230 V 50-60 Hz

WM-TQR control



230 V 50-60 Hz

WM-AU control (*)



230 V 50-60 Hz

T-MB2 control (*)



230 V 50-60 Hz

WM-503-AC-EC control (**)



230 V 50 Hz

T2T control



230 V 50-60 Hz

(*) To be used with UPM-AU or UP-AU only

(**) To be used with UP-503-AC-EC only

Control systems

See from p. 57 for:

- MB controls and units
- the KNX Bus System

CARISMA CRC-ECM

The **Carisma CRC-ECM** fan coils combine a beautiful design with very interesting performances in terms of sound level and energy consumption.

The **ECM** range makes use of the excellent experience gained with the Cassette fan coil units 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 continuous** 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.

The extreme efficiency, also at a low speed, makes possible a great reduction in electric consumption (more than 50% less in comparison to the though efficient motor of the **Carisma CRC** range), with absorption values, under normal operating conditions, **that do not exceed 16 Watt for the CRC-ECM** models.

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.

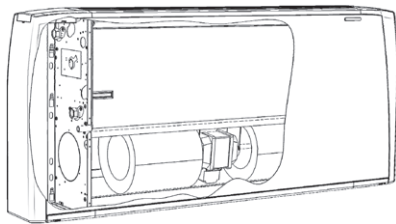
The full compliance with the Electromagnetic Compatibility Directive and with the other severe Standards in force is certified by an independent institute.



MAIN COMPONENTS

CRC-ECM range with centrifugal fan

The range includes 5 sizes (from 115 to 1395 m³/h) and 5 versions (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.



Outer casing

Made with strong synthetic lateral corners (ABS) and with a galvanized, pre-painted 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)**
- Frontal panel : **RAL 9003 (white)**
- Other colours on request.

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.

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.

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 - 240 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 hydraulic connections are on the left side facing 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 the construction site during installation.

Condensate collection tray

Made of plastic (ABS UL94 HB) with a "L"-shaped plastic fitted on the inner casing.

In the MO-MVB and IV-IO versions the tray is insulated with 3 mm polyolefin (PO) foam B-s2-d0 EN 13501-1.

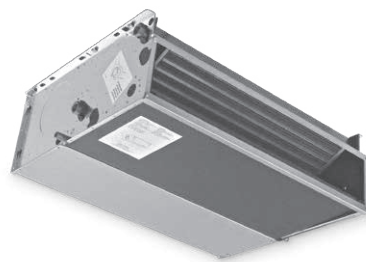
The outside diameter of the condensate discharge pipe is Ø 15 mm.

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 filter removal.

Filter presence is highlighted by a plastic front cover featuring the same colour as the top grid.



EUROVENT CERTIFICATION

3 row coil - 2 pipe units



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		CRC-ECM 23					CRC-ECM 43					CRC-ECM 63				
Inverter power		1	3	5	7,5	10	1	3	5	7,5	10	1	3	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	120	170	220	270	330	210	280	350	430	515	305	395	495	610	735
Cooling total emission (E)	kW	0,73	0,97	1,18	1,37	1,59	1,41	1,80	2,18	2,57	2,95	1,96	2,44	2,93	3,44	3,96
Cooling sensible emission (E)	kW	0,55	0,74	0,92	1,09	1,28	1,03	1,33	1,64	1,95	2,26	1,46	1,83	2,22	2,64	3,08
Heating emission (E)	kW	0,77	1,04	1,29	1,52	1,80	1,42	1,84	2,26	2,69	3,14	1,96	2,46	3,00	3,55	4,14
Dp Cooling (E)	kPa	2,2	3,6	5,1	6,7	8,6	7,9	12,0	17,0	22,6	28,9	5,5	8,0	11,1	14,8	19,0
Dp Heating (E)	kPa	1,6	2,7	3,9	5,2	7,0	6,6	10,4	14,9	20,4	26,7	4,5	6,8	9,6	12,9	17,0
Fan (E)	W	7,0	9,0	11,0	15,0	21,0	6,0	9,0	12,0	17,0	25,0	7,0	10,0	15,0	22,0	32,0
Sound power (Lw) (E)	dB(A)	30	36	41	47	51	30	36	42	47	51	33	38	44	49	54
Sound pressure (Lp) ⁽¹⁾	dB(A)	21	27	32	38	42	21	27	33	38	42	24	29	35	40	45

MODEL		CRC-ECM 73					CRC-ECM 93				
Inverter power		1	3	5	7,5	10	1	3	5	7,5	10
		MIN		MED		MAX	MIN		MED		MAX
	Eurovent certified performances.	(E)	-	(E)	-	(E)	(E)	-	(E)	-	(E)
Air flow	m³/h	400	500	610	755	890	605	785	945	1175	1395
Cooling total emission (E)	kW	2,60	3,13	3,68	4,36	4,94	3,45	4,22	4,82	5,60	6,26
Cooling sensible emission (E)	kW	1,92	2,33	2,77	3,32	3,80	2,63	3,28	3,79	4,49	5,10
Heating emission (E)	kW	2,56	3,13	3,72	4,43	5,08	3,74	4,65	5,41	6,46	7,38
Dp Cooling (E)	kPa	10,5	14,5	19,4	26,1	32,6	8,9	12,7	16,1	21,1	25,9
Dp Heating (E)	kPa	8,5	12,1	16,4	22,2	28,3	7,3	10,7	14,0	19,1	24,2
Fan (E)	W	9,0	13,0	18,5	28,5	41,0	16,0	25,0	41,0	65,0	99,0
Sound power (Lw) (E)	dB(A)	37	43	48	53	57	44	50	55	60	64
Sound pressure (Lp) ⁽¹⁾	dB(A)	28	34	39	44	48	35	41	46	51	55

(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.

4 row coil - 2 pipe units

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		CRC-ECM 24					CRC-ECM 44					CRC-ECM 64				
		1	3	5	7,5	10	1	3	5	7,5	10	1	3	5	7,5	10
Inverter power		MIN		MED		MAX	MIN		MED		MAX	MIN		MED		MAX
Eurovent certified performances.		(E)	-	(E)	-	(E)	(E)	-	(E)	-	(E)	(E)	-	(E)	-	(E)
Air flow	m ³ /h	115	160	210	260	325	200	265	340	415	505	290	375	475	590	720
Cooling total emission (E)	kW	0,77	1,06	1,32	1,57	1,86	1,43	1,83	2,27	2,71	3,17	2,05	2,59	3,19	3,84	4,51
Cooling sensible emission (E)	kW	0,56	0,78	0,98	1,19	1,42	1,03	1,34	1,67	2,02	2,39	1,48	1,89	2,34	2,84	3,38
Heating emission (E)	kW	0,78	1,08	1,37	1,65	1,98	1,42	1,83	2,30	2,77	3,32	2,02	2,59	3,23	3,93	4,68
Dp Cooling (E)	kPa	3,2	5,5	8,0	11,0	14,8	4,0	6,1	8,9	12,3	16,1	8,2	12,4	17,8	24,8	33,0
Dp Heating (E)	kPa	2,6	4,7	7,1	9,9	13,6	3,1	4,9	7,3	10,2	13,7	6,6	10,3	15,1	21,4	29,1
Fan (E)	W	7,0	8,8	11,0	14,6	21,0	6,0	9,0	12,0	17,0	25,0	7,0	10,0	15,0	22,0	32,0
Sound power (Lw) (E)	dB(A)	30	36	41	47	51	30	36	42	47	51	33	38	44	49	54
Sound pressure (Lp) ⁽¹⁾	dB(A)	21	27	32	38	42	21	27	33	38	42	24	29	35	40	45

MODEL		CRC-ECM 74					CRC-ECM 94				
		1	3	5	7,5	10	1	3	5	7,5	10
Inverter power		MIN		MED		MAX	MIN		MED		MAX
Eurovent certified performances.		(E)	-	(E)	-	(E)	(E)	-	(E)	-	(E)
Air flow	m ³ /h	380	475	585	735	875	575	755	910	1145	1365
Cooling total emission (E)	kW	2,61	3,20	3,82	4,61	5,30	3,59	4,49	5,21	6,18	7,04
Cooling sensible emission (E)	kW	1,90	2,34	2,82	3,44	3,99	2,69	3,40	3,99	4,81	5,53
Heating emission (E)	kW	2,57	3,17	3,84	4,66	5,43	3,76	4,81	5,63	6,84	7,93
Dp Cooling (E)	kPa	7,3	10,5	14,3	20,0	25,6	6,3	9,3	12,1	16,4	20,8
Dp Heating (E)	kPa	5,9	8,6	12,0	16,9	22,0	5,6	8,7	11,4	16,1	20,9
Fan (E)	W	9,0	13,0	18,5	28,5	41,0	16,0	25,0	41,0	65,0	99,0
Sound power (Lw) (E)	dB(A)	37	43	48	53	57	44	50	55	60	64
Sound pressure (Lp) ⁽¹⁾	dB(A)	28	34	39	44	48	35	41	46	51	55

(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.

3+1 row coil - 4 pipe units

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: +65 °C E.W.T. +55 °C L.W.T.



MODEL		CRC-ECM 23+1					CRC-ECM 43+1					CRC-ECM 63+1				
Inverter power		1	3	5	7,5	10	1	3	5	7,5	10	1	3	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	120	170	220	270	330	210	280	350	430	515	305	395	495	610	735
Cooling total emission (E)	kW	0,73	0,97	1,18	1,37	1,59	1,41	1,80	2,18	2,57	2,95	1,96	2,44	2,93	3,44	3,96
Cooling sensible emission (E)	kW	0,55	0,74	0,92	1,09	1,28	1,03	1,33	1,64	1,95	2,26	1,46	1,83	2,22	2,64	3,08
Heating emission (E)	kW	0,71	0,91	1,08	1,24	1,43	1,29	1,57	1,85	2,13	2,41	1,76	2,10	2,45	2,83	3,22
Dp Cooling (E)	kPa	2,3	3,8	5,4	7,2	9,4	7,3	11,5	16,0	21,6	28,1	6,4	9,6	13,2	17,7	23,3
Dp Heating (E)	kPa	1,0	1,6	2,1	2,7	3,5	3,6	5,2	6,9	8,8	11,0	1,2	1,7	2,2	2,9	3,6
Fan (E)	W	7,0	9,0	11,0	14,5	21,0	6,0	9,0	12,0	17,0	25,0	7,0	10,0	15,0	22,0	32,0
Sound power (Lw) (E)	dB(A)	30	36	41	47	51	30	36	42	47	51	33	38	44	49	54
Sound pressure (Lp) ⁽¹⁾	dB(A)	21	27	32	38	42	21	27	33	38	42	24	29	35	40	45

MODEL		CRC-ECM 73+1					CRC-ECM 93+1				
Inverter power		1	3	5	7,5	10	1	3	5	7,5	10
		MIN		MED		MAX	MIN		MED		MAX
Eurovent certified performances.		(E)	-	(E)	-	(E)	(E)	-	(E)	-	(E)
Air flow	m³/h	400	500	610	755	890	605	785	945	1175	1395
Cooling total emission (E)	kW	2,60	3,13	3,68	4,36	4,94	3,45	4,22	4,82	5,60	6,26
Cooling sensible emission (E)	kW	1,92	2,33	2,77	3,32	3,80	2,63	3,28	3,79	4,49	5,10
Heating emission (E)	kW	2,33	2,72	3,12	3,63	4,06	2,99	3,58	4,05	4,69	5,24
Dp Cooling (E)	kPa	9,7	13,8	18,4	24,8	31,8	8,9	12,7	16,1	21,1	25,9
Dp Heating (E)	kPa	2,4	3,1	4,0	5,2	6,3	3,7	5,1	6,3	8,2	9,9
Fan (E)	W	9,0	13,0	18,5	28,5	41,0	16,0	25,0	41,0	65,0	99,0
Sound power (Lw) (E)	dB(A)	37	43	48	53	57	44	50	55	60	64
Sound pressure (Lp) ⁽¹⁾	dB(A)	28	34	39	44	48	35	41	46	51	55

(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

3 row coil units

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

Model	Vdc	WT: 7 / 12 °C					WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
		Qv m³/h	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC-ECM 23	10	330	1,72	1,27	299	7,9	1,53	1,19	266	6,4	1,12	1,04	196	3,7	0,90	0,90	159	2,5
	7,5	270	1,49	1,08	258	6,1	1,32	1,02	230	4,9	0,98	0,88	171	2,9	0,77	0,77	135	1,9
	5	220	1,27	0,91	220	4,6	1,13	0,86	196	3,7	0,84	0,74	147	2,2	0,66	0,66	115	1,4
	3	170	1,04	0,74	181	3,3	0,93	0,69	162	2,7	0,70	0,60	121	1,6	0,53	0,53	93	1,0
	1	120	0,79	0,55	137	2,0	0,71	0,52	123	1,6	0,53	0,45	93	1,0	0,39	0,39	69	0,6
CRC-ECM 43	10	515	3,17	2,25	550	32,9	2,84	2,11	493	27,0	2,14	1,84	373	16,3	1,62	1,62	283	9,9
	7,5	430	2,76	1,94	478	25,8	2,48	1,82	429	21,2	1,88	1,59	326	12,8	1,40	1,40	243	7,6
	5	350	2,35	1,63	406	19,3	2,11	1,53	365	15,9	1,60	1,33	278	9,7	1,18	1,18	204	5,6
	3	280	1,93	1,33	334	13,7	1,74	1,25	300	11,3	1,33	1,08	229	6,9	0,96	0,96	167	3,9
	1	210	1,52	1,03	262	8,9	1,37	0,97	236	7,4	1,05	0,84	181	4,6	0,74	0,74	129	2,5
CRC-ECM 63	10	735	4,26	3,07	738	21,6	3,81	2,89	661	17,6	2,86	2,52	498	10,6	2,21	2,21	386	6,7
	7,5	610	3,70	2,63	641	16,8	3,32	2,48	574	13,8	2,50	2,16	434	8,3	1,90	1,90	331	5,1
	5	495	3,15	2,21	544	12,6	2,82	2,08	488	10,3	2,14	1,81	370	6,3	1,59	1,59	277	3,7
	3	395	2,62	1,83	453	9,1	2,36	1,71	407	7,5	1,79	1,49	310	4,6	1,32	1,32	229	2,7
	1	305	2,12	1,46	365	6,3	1,90	1,37	329	5,2	1,45	1,19	251	3,2	1,05	1,05	182	1,8
CRC-ECM 73	10	890	5,31	3,79	921	37,1	4,04	3,56	702	30,4	3,60	3,11	627	18,5	2,74	2,74	478	11,3
	7,5	755	4,69	3,31	812	29,7	4,21	3,11	729	24,4	3,20	2,71	555	14,9	2,39	2,39	416	8,8
	5	610	3,96	2,76	684	22,0	3,56	2,60	615	18,1	2,71	2,26	470	11,1	1,99	1,99	346	6,4
	3	500	3,37	2,33	581	16,5	3,03	2,19	523	13,6	2,32	1,90	400	8,4	1,69	1,69	292	4,8
	1	400	2,79	1,92	482	11,9	2,52	1,80	434	9,8	1,93	1,57	333	6,1	1,38	1,38	240	3,4
CRC-ECM 93	10	1395	6,76	5,06	1180	30,3	6,01	4,76	1051	24,7	4,43	4,17	780	14,6	3,63	3,63	642	10,4
	7,5	1175	6,05	4,46	1051	24,7	5,39	4,20	938	20,2	3,99	3,67	698	12,0	3,21	3,21	563	8,2
	5	945	5,19	3,77	900	18,8	4,64	3,55	804	15,4	3,46	3,10	602	9,3	2,71	2,71	474	6,1
	3	785	4,55	3,27	787	14,8	4,07	3,07	704	12,2	3,05	2,68	529	7,4	2,35	2,35	409	4,6
	1	605	3,72	2,63	642	10,4	3,33	2,47	575	8,6	2,51	2,15	434	5,2	1,90	1,90	330	3,1

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 26 °C – R.H.: 50%

Model	Vdc	WT: 7 / 12 °C					WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
		Qv m³/h	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC-ECM 23	10	330	1,52	1,19	265	6,4	1,33	1,12	232	5,0	0,99	0,99	173	3,0	0,82	0,82	145	2,1
	7,5	270	1,32	1,02	229	4,9	1,15	0,95	201	3,9	0,84	0,84	147	2,2	0,70	0,70	123	1,6
	5	220	1,13	0,86	195	3,7	0,99	0,80	172	3,0	0,69	0,69	121	1,6	0,60	0,60	105	1,2
	3	170	0,93	0,70	161	2,7	0,82	0,65	142	2,1	0,57	0,56	100	1,1	0,48	0,48	85	0,8
	1	120	0,70	0,52	122	1,6	0,62	0,48	108	1,3	0,44	0,41	77	0,7	0,36	0,36	63	0,5
CRC-ECM 43	10	515	2,82	2,12	490	26,9	2,49	1,98	433	21,5	1,78	1,70	311	11,8	1,48	1,48	259	8,5
	7,5	430	2,46	1,83	426	21,1	2,18	1,71	377	16,9	1,57	1,47	272	9,4	1,28	1,28	223	6,5
	5	350	2,10	1,54	362	15,8	1,86	1,44	323	12,7	1,34	1,24	233	7,1	1,08	1,08	187	4,8
	3	280	1,73	1,25	298	11,2	1,53	1,17	265	9,0	1,11	1,01	193	5,1	0,88	0,88	153	3,3
	1	210	1,36	0,97	234	7,3	1,20	0,91	208	5,9	0,88	0,78	153	3,4	0,68	0,68	118	2,1
CRC-ECM 63	10	735	3,79	2,89	658	17,6	3,34	2,71	580	14,0	2,37	2,33	413	7,6	2,02	2,02	353	5,7
	7,5	610	3,30	2,48	571	13,7	2,91	2,32	504	11,0	2,08	2,00	361	6,0	1,74	1,74	302	4,3
	5	495	2,81	2,08	485	10,3	2,48	1,95	429	8,2	1,78	1,68	309	4,6	1,46	1,46	253	3,2
	3	395	2,34	1,72	404	7,5	2,07	1,61	358	6,0	1,50	1,38	260	3,4	1,21	1,21	209	2,3
	1	305	1,89	1,37	326	5,1	1,68	1,28	289	4,1	1,22	1,10	211	2,3	0,96	0,96	167	1,5
CRC-ECM 73	10	890	4,74	3,57	822	30,4	4,19	3,34	727	24,3	3,00	2,88	523	13,4	2,50	2,50	437	9,7
	7,5	755	4,19	3,12	725	24,3	3,70	2,92	642	19,5	2,67	2,51	464	10,9	2,18	2,18	381	7,6
	5	610	3,54	2,60	611	18,0	3,13	2,53	542	14,5	2,27	2,10	394	8,2	1,82	1,82	317	5,5
	3	500	3,01	2,19	520	13,6	2,67	2,05	462	10,9	1,95	1,77	337	6,2	1,54	1,54	268	4,1
	1	400	2,50	1,80	431	9,8	2,22	1,69	383	7,9	1,63	1,45	281	4,5	1,27	1,27	220	2,9
CRC-ECM 93	10	1395	6,00	4,77	1048	24,5	5,25	4,47	920	19,5	3,96	3,96	699	12,0	3,30	3,30	585	8,8
	7,5	1175	5,37	4,21	934	20,0	4,71	3,94	821	16,0	3,50	3,50	613	9,6	2,92	2,92	513	7,0
	5	945	4,61	3,56	801	15,3	4,06	3,33	705	12,2	2,96	2,96	515	7,0	2,47	2,47	432	5,1
	3	785	4,05	3,08	700	12,1	3,56	2,88	617	9,7	2,52	2,48	438	5,3	2,15	2,15	373	3,9
	1	605	3,31	2,48	572	8,5	2,92	2,32	505	6,8	2,08	1,99	361	3,7	1,74	1,74	302	2,6

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				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
			Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC-ECM 23	10	330	1,33	1,12	232	5,0	1,13	1,04	198	3,8	0,90	0,90	159	2,5	0,74	0,74	131	1,8
	7,5	270	1,15	0,96	200	3,9	0,99	0,89	172	3,0	0,77	0,78	135	1,9	0,63	0,63	111	1,3
	5	220	0,99	0,80	171	3,0	0,85	0,75	147	2,3	0,66	0,66	115	1,4	0,54	0,54	94	1,0
	3	170	0,81	0,65	141	2,1	0,70	0,60	122	1,6	0,53	0,53	93	1,0	0,44	0,44	77	0,7
	1	120	0,62	0,48	108	1,3	0,53	0,45	93	1,0	0,39	0,39	69	0,6	0,32	0,32	57	0,4
CRC-ECM 43	10	515	2,49	1,99	432	21,6	2,15	1,85	375	16,7	1,63	1,63	284	10,1	1,34	1,34	235	7,1
	7,5	430	2,17	1,71	376	16,9	1,88	1,59	327	13,1	1,40	1,40	244	7,7	1,16	1,16	202	5,5
	5	350	1,85	1,44	320	12,7	1,61	1,34	278	9,9	1,18	1,18	205	5,7	0,97	0,97	170	4,0
	3	280	1,52	1,17	264	9,0	1,33	1,09	230	7,1	0,97	0,97	168	4,0	0,80	0,80	139	2,8
	1	210	1,20	0,91	207	5,9	1,05	0,84	181	4,6	0,75	0,74	130	2,5	0,62	0,62	108	1,8
CRC-ECM 63	10	735	3,34	2,71	579	14,1	2,88	2,53	501	10,8	2,22	2,22	387	6,8	1,82	1,82	319	4,8
	7,5	610	2,90	2,33	503	11,0	2,51	2,17	436	8,5	1,90	1,91	331	5,2	1,57	1,57	274	3,6
	5	495	2,47	1,96	428	8,3	2,14	1,82	371	6,4	1,60	1,60	277	3,8	1,32	1,32	229	2,7
	3	395	2,07	1,61	357	6,0	1,80	1,50	310	4,7	1,33	1,33	230	2,7	1,10	1,10	190	1,9
	1	305	1,67	1,28	288	4,1	1,45	1,19	251	3,2	1,06	1,05	183	1,8	0,87	0,87	151	1,3
CRC-ECM 73	10	890	4,18	3,35	726	24,4	3,63	3,12	631	18,9	2,74	2,74	479	11,5	2,26	2,26	396	8,1
	7,5	755	3,69	2,93	640	19,6	3,21	2,73	557	15,2	2,40	2,40	417	9,0	1,98	1,98	345	6,4
	5	610	3,12	2,44	541	14,5	2,72	2,27	471	11,3	2,00	2,00	347	6,5	1,65	1,65	287	4,6
	3	500	2,66	2,06	460	10,9	2,32	1,92	401	8,5	1,69	1,70	293	4,9	1,40	1,40	243	3,4
	1	400	2,21	1,69	382	7,9	1,93	1,57	334	6,2	1,33	1,39	230	3,4	1,15	1,15	200	2,4
CRC-ECM 93	10	1395	5,25	4,48	920	19,5	4,49	4,18	789	14,9	3,63	3,63	642	10,4	2,97	2,97	528	7,4
	7,5	1175	4,70	3,95	820	15,9	4,04	3,68	706	12,2	3,21	3,22	563	8,2	2,63	2,63	464	5,8
	5	945	4,05	3,33	703	12,2	3,49	3,11	607	9,4	2,72	2,72	474	6,1	2,23	2,23	391	4,3
	3	785	3,56	2,89	616	9,6	3,07	2,69	532	7,5	2,36	2,36	409	4,7	1,94	1,94	337	3,2
	1	605	2,91	2,32	503	6,8	2,52	2,16	436	5,2	1,91	1,90	331	3,1	1,57	1,57	273	2,1

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

4 row coil units

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

Model	Vdc	Qv m³/h	WT: 7 / 12 °C				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
			Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC-ECM 24	10	325	2,00	1,42	348	16,9	1,79	1,33	312	13,8	1,35	1,16	235	8,3	1,02	1,02	179	5,0
	7,5	260	1,69	1,18	294	12,5	1,52	1,11	264	10,3	1,15	0,97	200	6,2	0,85	0,85	149	3,7
	5	210	1,42	0,98	245	9,1	1,27	0,92	220	7,5	0,96	0,80	168	4,6	0,71	0,71	123	2,6
	3	160	1,14	0,78	197	6,2	1,02	0,73	178	5,1	0,78	0,64	136	3,1	0,56	0,56	98	1,8
	1	115	0,84	0,57	145	3,6	0,75	0,53	131	3,0	0,58	0,46	100	1,9	0,41	0,41	71	1,0
CRC-ECM 44	10	505	3,42	2,38	592	18,5	3,06	2,23	531	15,2	2,32	1,94	403	9,2	1,71	1,71	299	5,4
	7,5	415	2,92	2,02	506	14,0	2,63	1,89	454	11,5	2,00	1,64	346	7,0	1,45	1,45	253	4,0
	5	340	2,44	1,67	421	10,1	2,19	1,56	379	8,4	1,67	1,36	290	5,1	1,20	1,20	208	2,8
	3	265	1,97	1,34	340	7,0	1,77	1,25	307	5,8	1,36	1,09	235	3,6	0,96	0,96	167	1,9
	1	200	1,54	1,04	266	4,5	1,39	0,97	240	3,7	1,07	0,84	185	2,3	0,75	0,75	129	1,2
CRC-ECM 64	10	720	4,85	3,36	839	37,4	4,36	3,16	755	30,9	3,32	2,75	577	19,0	2,43	2,43	423	10,8
	7,5	590	4,12	2,84	713	28,1	3,71	2,67	642	23,2	2,84	2,32	492	14,3	2,05	2,05	356	8,0
	5	475	3,42	2,33	590	20,2	3,08	2,19	533	16,7	2,37	1,91	409	10,4	1,69	1,69	293	5,7
	3	375	2,79	1,89	481	14,1	2,52	1,78	434	11,7	1,94	1,54	335	7,3	1,36	1,36	236	3,9
	1	290	2,20	1,48	379	9,2	1,99	1,39	343	7,7	1,54	1,21	265	4,8	1,07	1,07	184	2,5
CRC-ECM 74	10	875	5,70	3,98	987	29,1	5,12	3,74	888	24,0	3,90	3,26	677	14,7	2,87	2,87	501	8,5
	7,5	735	4,95	3,43	857	22,7	4,46	3,23	771	18,7	3,40	2,81	590	11,5	2,47	2,47	431	6,5
	5	585	4,11	2,82	710	16,3	3,70	2,65	639	13,5	2,83	2,30	491	8,3	2,04	2,04	354	4,6
	3	475	3,43	2,34	593	11,9	3,10	2,20	535	9,8	2,38	1,91	412	6,1	1,69	1,69	293	3,3
	1	380	2,81	1,90	484	8,3	2,53	1,79	437	6,9	1,95	1,55	337	4,3	1,37	1,37	237	2,3
CRC-ECM 94	10	1365	7,60	5,50	1324	23,7	6,77	5,17	1182	19,3	5,04	4,51	883	11,4	3,94	3,94	695	7,4
	7,5	1145	6,68	4,79	1160	18,8	5,96	4,50	1037	15,3	4,46	3,91	778	9,1	3,43	3,43	602	5,7
	5	910	5,61	3,97	972	13,8	5,02	3,73	871	11,3	3,77	3,24	656	6,8	2,85	2,85	497	4,1
	3	755	4,84	3,40	837	10,6	4,34	3,19	750	8,7	3,27	2,77	567	5,2	2,45	2,45	426	3,1
	1	575	3,87	2,69	669	7,1	3,48	2,52	601	5,9	2,64	2,19	456	3,6	1,93	1,93	335	2,0

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 26 °C – R.H.: 50%

Model	Vdc	Qv m³/h	WT: 7 / 12 °C				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
			Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC-ECM 24	10	325	1,78	1,33	310	13,8	1,57	1,25	273	11,0	1,12	1,07	195	6,0	0,93	0,93	163	4,3
	7,5	260	1,51	1,12	262	10,2	1,33	1,04	232	8,2	0,95	0,89	166	4,5	0,78	0,78	136	3,1
	5	210	1,26	0,92	219	7,5	1,12	0,86	194	6,0	0,81	0,74	140	3,3	0,65	0,65	113	2,3
	3	160	1,02	0,74	176	5,1	0,90	0,69	157	4,1	0,65	0,59	114	2,3	0,51	0,51	90	1,5
	1	115	0,75	0,53	130	3,0	0,66	0,50	115	2,4	0,49	0,43	85	1,4	0,37	0,37	65	0,9
CRC-ECM 44	10	505	3,05	2,24	528	15,1	2,69	2,09	467	12,1	1,94	1,79	338	6,8	1,57	1,57	274	4,6
	7,5	415	2,61	1,90	452	11,5	2,31	1,77	400	9,2	1,67	1,52	291	5,2	1,33	1,33	232	3,4
	5	340	2,18	1,57	376	8,3	1,93	1,47	334	6,7	1,41	1,26	244	3,8	1,10	1,10	191	2,4
	3	265	1,76	1,26	304	5,7	1,56	1,17	271	4,6	1,14	1,01	198	2,6	0,88	0,88	153	1,7
	1	200	1,38	0,98	238	3,7	1,23	0,91	212	3,0	0,90	0,78	156	1,7	0,68	0,68	119	1,1
CRC-ECM 64	10	720	4,33	3,17	750	30,8	3,84	2,96	666	24,7	2,79	2,55	486	14,0	2,22	2,22	388	9,3
	7,5	590	3,69	2,67	638	23,1	3,27	2,50	567	18,6	2,39	2,15	415	10,6	1,87	1,87	326	6,9
	5	475	3,06	2,20	529	16,6	2,72	2,06	470	13,4	2,00	1,77	346	7,7	1,55	1,55	268	4,9
	3	375	2,50	1,78	431	11,6	2,22	1,66	384	9,4	1,64	1,43	283	5,4	1,25	1,25	217	3,3
	1	290	1,97	1,40	340	7,6	1,76	1,30	304	6,2	1,30	1,12	225	3,6	0,98	0,98	169	2,2
CRC-ECM 74	10	875	5,09	3,75	883	23,9	4,51	3,51	782	19,2	3,27	3,02	569	10,8	2,63	2,63	459	7,3
	7,5	735	4,43	3,23	766	18,6	3,93	3,02	680	15,0	2,86	2,60	497	8,5	2,26	2,26	394	5,6
	5	585	3,67	2,66	635	13,4	3,26	2,48	565	10,8	2,39	2,13	414	6,2	1,87	1,87	325	4,0
	3	475	3,08	2,21	531	9,8	2,74	2,06	473	7,9	2,01	1,77	348	4,5	1,55	1,55	269	2,8
	1	380	2,51	1,79	434	6,8	2,24	1,67	387	5,6	1,65	1,44	286	3,2	1,26	1,26	217	2,0
CRC-ECM 94	10	1365	6,74	5,18	1177	19,3	5,92	4,85	1035	15,3	4,30	4,30	757	8,7	3,59	3,59	635	6,3
	7,5	1145	5,93	4,50	1031	15,3	5,22	4,21	908	12,1	3,67	3,62	643	6,5	3,13	3,13	549	4,9
	5	910	4,99	3,74	866	11,2	4,40	3,50	764	8,9	3,12	3,00	544	4,9	2,60	2,60	454	3,5
	3	755	4,31	3,98	745	8,6	3,80	2,99	659	6,9	2,72	2,56	472	3,8	2,24	2,24	390	2,7
	1	575	3,45	2,53	597	5,8	3,05	2,36	528	4,7	2,20	2,02	382	2,6	1,77	1,77	307	1,7

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				WT: 8 / 13 °C				WT: 10 / 15 °C				WT: 12 / 17 °C			
			Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa	Pc kW	Ps kW	Qw l/h	Dp(c) kPa
CRC-ECM 24	10	325	1,57	1,25	273	11,0	1,35	1,16	236	8,5	1,02	1,02	179	5,1	0,84	0,84	148	3,6
	7,5	260	1,33	1,04	231	8,2	1,15	0,97	200	6,3	0,85	0,85	149	3,7	0,70	0,70	123	2,6
	5	210	1,11	0,86	193	6,0	0,97	0,80	168	4,6	0,71	0,71	124	2,7	0,59	0,59	103	1,9
	3	160	0,90	0,69	156	4,1	0,78	0,64	136	3,2	0,56	0,56	99	1,8	0,47	0,47	82	1,3
	1	115	0,66	0,50	115	2,4	0,58	0,46	100	1,9	0,39	0,39	68	0,9	0,34	0,34	59	0,7
CRC-ECM 44	10	505	2,68	2,10	466	12,1	2,33	1,95	405	9,4	1,72	1,72	300	5,5	1,41	1,42	246	3,9
	7,5	415	2,30	1,78	399	9,2	2,00	1,65	347	7,2	1,46	1,46	254	4,1	1,21	1,21	210	2,9
	5	340	1,92	1,47	333	6,7	1,68	1,37	290	5,2	1,21	1,21	209	2,9	1,00	1,00	174	2,1
	3	265	1,56	1,18	269	4,6	1,36	1,09	235	3,6	0,92	0,92	160	1,8	0,80	0,80	139	1,4
	1	200	1,22	0,92	211	3,0	1,07	0,85	185	2,4	0,73	0,71	127	1,2	0,62	0,62	108	0,9
CRC-ECM 64	10	720	3,83	2,97	664	24,8	3,33	2,77	578	19,3	2,44	2,44	424	11,1	2,01	2,01	352	7,8
	7,5	590	3,26	2,51	565	18,6	2,84	2,33	493	14,6	2,05	2,05	357	8,1	1,70	1,70	296	5,8
	5	475	2,71	2,06	469	13,4	2,37	1,92	410	10,5	1,69	1,69	294	5,8	1,40	1,40	244	4,1
	3	375	2,21	1,67	382	9,4	1,94	1,55	335	7,4	1,33	1,31	230	3,8	1,13	1,14	196	2,8
	1	290	1,75	1,31	302	6,2	1,53	1,12	265	4,9	1,06	1,03	184	2,5	0,89	0,89	154	1,8
CRC-ECM 74	10	875	4,50	3,52	780	19,2	3,91	3,27	679	15,0	2,88	2,88	502	8,7	2,38	2,38	416	6,1
	7,5	735	3,91	3,03	678	15,0	3,41	2,82	591	11,7	2,48	2,48	432	6,7	2,05	2,05	358	4,7
	5	585	3,25	2,49	562	10,8	2,84	2,32	491	8,5	2,05	2,05	356	4,7	1,70	1,70	295	3,4
	3	475	2,72	2,07	471	7,9	2,38	1,92	412	6,2	1,62	1,62	281	3,1	1,41	1,41	244	2,4
	1	380	2,23	1,68	385	5,5	1,95	1,56	337	4,4	1,34	1,32	232	2,2	1,14	1,14	198	1,7
CRC-ECM 94	10	1365	5,91	4,86	1033	15,3	5,08	4,52	891	11,7	3,95	3,95	696	7,5	3,23	3,23	573	5,3
	7,5	1145	5,20	4,22	906	12,2	4,49	3,93	783	9,3	3,44	3,44	603	5,8	2,82	2,82	497	4,1
	5	910	4,39	3,50	762	9,0	3,79	3,26	659	6,9	2,86	2,86	498	4,2	2,35	2,35	411	2,9
	3	755	3,79	2,99	657	6,9	3,28	2,78	569	5,3	2,46	2,46	427	3,2	2,03	2,03	353	2,2
	1	575	3,04	2,37	526	4,7	2,64	2,20	457	3,6	1,94	1,94	336	2,1	1,60	1,60	278	1,5

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

HEATING EMISSION

3 row coil units

Entering air temperature : 20 °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
CRC-ECM 23	10	330	3,64	313	6,7	2,78	239	4,3	1,92	165	2,3	2,22	383	10,0	1,80	309	7,0
	7,5	270	3,09	265	5,0	2,36	203	3,2	1,63	140	1,7	1,89	324	7,5	1,52	262	5,2
	5	220	2,61	224	3,7	1,99	171	2,4	1,38	119	1,3	1,59	274	5,6	1,29	222	3,9
	3	170	2,10	181	2,5	1,61	138	1,6	1,12	96	0,9	1,28	221	3,8	1,04	179	2,7
	1	120	1,55	133	1,5	1,19	102	1,0	0,83	71	0,5	0,95	163	2,2	0,77	132	1,6
CRC-ECM 43	10	515	6,33	544	25,2	4,86	418	16,3	3,39	291	8,9	3,87	665	37,9	3,14	540	26,7
	7,5	430	5,43	467	19,2	4,17	359	12,5	2,91	250	6,8	3,32	571	28,9	2,69	463	20,4
	5	350	4,55	391	14,1	3,50	301	9,1	2,44	210	5,0	2,78	478	21,2	2,26	388	14,9
	3	280	3,70	318	9,8	2,85	245	6,4	1,99	171	3,5	2,26	389	14,7	1,84	316	10,4
	1	210	2,85	245	6,2	2,20	189	4,0	1,54	133	2,2	1,74	300	9,3	1,42	244	6,6
CRC-ECM 63	10	735	8,37	719	16,0	6,41	551	10,3	4,45	383	5,6	5,11	879	24,1	4,14	712	17,0
	7,5	610	7,17	616	12,2	5,50	473	7,9	3,82	329	4,3	4,38	753	18,4	3,55	610	12,9
	5	495	6,04	520	9,0	4,64	399	5,9	3,23	278	3,2	3,69	635	13,6	3,00	515	9,6
	3	395	4,97	427	6,4	3,82	328	4,2	2,66	229	2,3	3,03	522	9,6	2,46	424	6,8
	1	305	3,95	339	4,3	3,04	261	2,8	2,12	182	1,5	2,41	415	6,4	1,96	337	4,5
CRC-ECM 73	10	890	10,25	882	26,7	7,87	677	17,3	5,49	472	9,5	6,26	1077	40,1	5,08	874	28,3
	7,5	755	8,94	769	21,0	6,87	591	13,6	4,79	412	7,5	5,46	939	31,5	4,43	762	22,2
	5	610	7,50	645	15,4	5,77	496	10,0	4,03	347	5,5	4,58	788	23,2	3,72	640	16,4
	3	500	6,30	542	11,3	4,85	417	7,4	3,93	338	4,1	3,85	662	17,0	3,13	538	12,1
	1	400	5,16	444	8,0	3,98	342	5,2	2,79	240	2,9	3,15	542	12,0	2,56	441	8,5
CRC-ECM 93	10	1395	14,95	1285	22,9	11,42	982	14,7	7,90	679	8,0	9,13	1570	34,5	7,38	1270	24,2
	7,5	1175	13,06	1123	18,1	9,99	859	11,6	6,92	595	6,3	7,98	1372	27,2	6,46	1111	19,1
	5	945	10,94	941	13,2	8,38	720	8,5	5,81	500	4,6	6,68	1149	19,9	5,41	931	14,0
	3	785	9,40	809	10,1	7,21	620	6,5	5,00	430	3,6	5,74	988	15,3	4,66	801	10,7
	1	605	7,55	649	6,9	5,79	498	4,5	4,03	347	2,4	4,61	793	10,4	3,74	643	7,3

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

4 row coil units

Entering air temperature : 20 °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
CRC-ECM 24	10	325	4,01	344	12,9	3,07	264	8,3	2,14	184	4,5	2,45	421	19,4	1,98	341	13,6
	7,5	260	3,33	286	9,3	2,56	220	6,0	1,78	153	3,3	2,03	350	14,0	1,65	284	9,9
	5	210	2,75	237	6,7	2,12	182	4,3	1,48	127	2,4	1,68	289	10,0	1,37	235	7,1
	3	160	2,18	187	4,4	1,68	144	2,9	1,17	101	1,6	1,33	229	6,6	1,08	186	4,7
	1	115	1,57	135	2,5	1,21	104	1,6	0,85	73	0,9	0,96	165	3,7	0,78	134	2,6
CRC-ECM 44	10	505	6,60	568	12,9	5,07	436	8,4	3,54	304	4,6	4,04	694	19,5	3,28	563	13,7
	7,5	415	5,57	479	9,6	4,29	369	6,2	3,00	258	3,4	3,41	586	14,5	2,77	476	10,2
	5	340	4,59	394	6,8	3,53	304	4,4	2,48	213	2,5	2,81	484	10,3	2,29	394	7,3
	3	265	3,67	316	4,6	2,83	243	3,0	1,99	171	1,7	2,24	386	6,9	1,83	314	4,9
	1	200	2,83	244	2,9	2,19	188	1,9	1,54	132	1,1	1,73	298	4,4	1,41	243	3,1
CRC-ECM 64	10	720	9,43	811	27,4	7,26	624	17,8	5,08	437	9,8	5,76	991	41,2	4,68	805	29,1
	7,5	590	7,90	679	20,1	6,09	523	13,1	4,27	367	7,2	4,83	830	30,2	3,93	675	21,4
	5	475	6,48	557	14,2	5,00	430	9,2	3,51	302	5,1	3,96	681	21,3	3,23	555	15,1
	3	375	5,21	448	9,6	4,02	346	6,3	2,83	243	3,5	3,19	548	14,5	2,59	446	10,3
	1	290	4,05	348	6,2	3,13	269	4,1	2,21	190	2,3	2,48	426	9,3	2,02	347	6,6
CRC-ECM 74	10	875	10,93	940	20,7	8,41	723	13,5	5,88	505	7,4	6,68	1149	31,2	5,43	933	22,0
	7,5	735	9,39	808	15,9	7,23	622	10,3	5,06	435	5,7	5,74	987	23,9	4,66	802	16,9
	5	585	7,73	664	11,3	5,95	512	7,3	4,17	359	4,1	4,72	812	16,9	3,84	660	12,0
	3	475	6,38	549	8,0	4,92	423	5,2	3,45	297	2,9	3,90	671	12,1	3,17	546	8,6
	1	380	5,16	444	5,5	3,98	342	3,6	2,80	241	2,0	3,15	542	8,3	2,57	442	5,9
CRC-ECM 94	10	1365	16,03	1379	19,8	12,27	1055	12,8	8,50	731	6,9	9,79	1685	29,8	7,93	1364	20,9
	7,5	1145	13,82	1188	15,2	10,58	910	9,8	7,35	632	5,3	8,44	1452	22,9	6,84	1176	16,1
	5	910	11,37	978	10,8	8,72	750	7,0	6,06	521	3,8	6,94	1194	16,3	5,63	969	11,4
	3	755	9,69	834	8,2	7,44	640	5,3	5,18	446	2,9	5,92	1019	12,3	4,81	826	8,7
	1	575	7,58	652	5,3	5,82	501	3,4	4,07	350	1,9	4,63	796	8,0	3,76	647	5,6

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

1 row additional coil units

For 3 or 4 row versions (3+1 or 4+1 rows)

Entering air temperature: 20 °C

Model	Vdc	Qv m³/h	WT: 80 / 70 °C			WT: 75 / 65 °C			WT: 70 / 60 °C			WT: 65 / 55 °C			WT: 60 / 50 °C			WT: 55 / 45 °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	Ph kW	Qw l/h	Dp(h) kPa
CRC-ECM 2	10	330	2,04	176	6,3	1,84	158	5,3	1,63	140	4,3	1,43	123	3,5	1,22	105	2,7	1,02	88	2,0
	7,5	270	1,78	153	4,9	1,60	138	4,1	1,42	122	3,4	1,24	107	2,7	1,07	92	2,1	0,89	76	1,6
	5	220	1,54	132	3,8	1,38	119	3,2	1,23	106	2,6	1,08	93	2,1	0,92	79	1,6	0,77	66	1,2
	3	170	1,29	111	2,8	1,16	100	2,4	1,04	89	1,9	0,91	78	1,6	0,78	67	1,2	0,65	56	0,9
	1	120	1,02	87	1,8	0,92	79	1,5	0,81	70	1,3	0,71	61	1,0	0,61	53	0,8	0,51	44	0,6
CRC-ECM 4	10	515	3,41	293	19,4	3,08	264	16,4	2,74	236	13,6	2,41	207	11,0	2,07	178	8,6	1,74	150	6,4
	7,5	430	3,01	259	15,6	2,72	234	13,2	2,42	208	10,9	2,13	183	8,8	1,83	158	6,9	1,54	132	5,2
	5	350	2,62	225	12,2	2,36	203	10,3	2,11	181	8,5	1,85	159	6,9	1,60	137	5,4	1,34	115	4,0
	3	280	2,22	191	9,1	2,01	172	7,7	1,79	154	6,4	1,57	135	5,2	1,36	117	4,1	1,14	98	3,0
	1	210	1,82	157	6,4	1,64	141	5,4	1,47	126	4,5	1,29	111	3,6	1,11	96	2,9	0,94	80	2,1
CRC-ECM 6	10	735	4,61	396	6,4	4,14	356	5,4	3,68	317	4,5	3,22	277	3,6	2,76	238	2,8	2,30	198	2,0
	7,5	610	4,05	348	5,1	3,64	313	4,3	3,24	278	3,6	2,83	244	2,9	2,43	209	2,2	2,03	174	1,6
	5	495	3,50	301	4,0	3,15	271	3,3	2,80	241	2,8	2,45	211	2,2	2,11	181	1,7	1,76	151	1,3
	3	395	3,00	258	3,0	2,70	232	2,5	2,40	206	2,1	2,10	181	1,7	1,81	155	1,3	1,51	130	1,0
	1	305	2,50	215	2,2	2,25	194	1,9	2,00	172	1,5	1,76	151	1,2	1,51	130	1,0	1,26	109	0,7
CRC-ECM 7	10	890	5,77	496	11,2	5,20	447	9,5	4,63	398	7,8	4,06	349	6,3	3,50	301	4,9	2,93	252	3,7
	7,5	755	5,15	443	9,2	4,64	399	7,8	4,13	355	6,4	3,63	312	5,2	3,12	268	4,0	2,62	225	3,0
	5	610	4,43	381	7,1	4,00	344	6,0	3,56	306	4,9	3,13	269	4,0	2,69	231	3,1	2,26	194	2,3
	3	500	3,86	332	5,5	3,48	299	4,7	3,10	267	3,9	2,72	234	3,1	2,35	202	2,4	1,97	169	1,8
	1	400	3,30	284	4,2	2,97	256	3,5	2,65	228	2,9	2,33	200	2,4	2,01	173	1,9	1,69	145	1,4
CRC-ECM 9	10	1395	7,46	641	17,6	6,72	578	14,9	5,98	514	12,3	5,24	451	9,9	4,51	388	7,7	3,77	324	5,7
	7,5	1175	6,67	574	14,5	6,01	517	12,2	5,35	460	10,1	4,69	404	8,2	4,04	347	6,4	3,38	291	4,7
	5	945	5,75	495	11,2	5,18	446	9,4	4,62	397	7,8	4,05	348	6,3	3,48	300	4,9	2,92	251	3,7
	3	785	5,08	437	9,0	4,58	394	7,6	4,08	351	6,3	3,58	308	5,1	3,08	265	3,9	2,58	222	2,9
	1	605	4,23	364	6,5	3,82	328	5,5	3,40	292	4,6	2,99	257	3,7	2,57	221	2,9	2,16	186	2,1

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

2 row additional coil units

For 3 row versions only (3+2 rows)

Entering air temperature : 20 °C

Model	Vdc	Qv m³/h	WT: 65 / 55 °C				WT: 60 / 50 °C				WT: 55 / 45 °C				WT: 50 / 40 °C				WT: 45 / 40 °C				WT: 45 / 35 °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	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa	Ph kW	Qw l/h	Dp(h) kPa
CRC-ECM 2	10	330	2,48	214	16,7	2,15	184	13,1	1,81	155	9,9	1,47	126	7,0	1,39	239	21,6	1,13	97	4,5						
	7,5	270	2,13	183	12,7	1,84	158	10,0	1,55	133	7,5	1,26	109	5,3	1,19	205	16,5	0,97	84	3,4						
	5	220	1,81	155	9,6	1,56	134	7,5	1,32	113	5,7	1,07	92	4,0	1,01	174	12,4	0,83	71	2,6						
	3	170	1,49	128	6,8	1,29	111	5,3	1,10	94	4,1	0,89	77	2,9	0,84	144	8,9	0,69	59	1,9						
	1	120	1,13	97	4,2	0,98	84	3,3	0,83	71	2,5	0,68	58	1,8	0,63	109	5,4	0,52	45	1,2						
CRC-ECM 4	10	515	3,90	335	7,6	3,36	289	5,9	2,82	243	4,4	2,29	197	3,1	2,18	375	9,8	1,76	151	2,0						
	7,5	430	3,40	292	5,9	2,93	252	4,7	2,47	212	3,5	2,00	172	2,5	1,90	327	7,7	1,54	132	1,6						
	5	350	2,90	249	4,5	2,50	215	3,5	2,11	181	2,6	1,71	147	1,9	1,62	279	5,8	1,32	113	1,2						
	3	280	2,43	209	3,3	2,10	181	2,6	1,77	152	1,9	1,44	124	1,4	1,36	234	4,3	1,11	95	0,9						
	1	210	1,94	166	2,2	1,67	144	1,7	1,41	121	1,3	1,15	99	0,9	1,08	186	2,8	0,89	76	0,6						
CRC-ECM 6	10	735	5,63	484	17,8	4,87	419	14,0	4,11	353	10,5	3,35	288	7,5	3,15	542	23,0	2,59	223	4,9						
	7,5	610	4,88	419	13,8	4,22	363	10,9	3,56	306	8,2	2,91	250	5,8	2,73	470	17,9	2,25	194	3,8						
	5	495	4,14	356	10,3	3,58	308	8,1	3,03	260	6,2	2,47	213	4,4	2,32	398	13,4	1,92	165	2,9						
	3	395	3,46	297	7,5	3,00	258	5,9	2,53	218	4,5	2,09	180	3,3	1,96	336	9,9	1,62	139	2,1						
	1	305	2,83	243	5,3	2,45	211	4,2	2,08	178	3,2	1,70	146	2,3	1,58	272	6,9	1,32	113	1,5						
CRC-ECM 7	10	890	7,01	603	31,1	6,07	522	24,5	5,14	442	18,6	4,20	361	13,3	3,93	675	40,2	3,27	281	8,7						
	7,5	755	6,17	530	24,8	5,34	460	19,6	4,52	389	14,8	3,70	318	10,6	3,45	594	32,1	2,88	248	6,9						
	5	610	5,20	447	18,4	4,51	388	14,5	3,82	328	11,0	3,13	269	7,9	2,91	501	23,8	2,44	209	5,2						
	3	500	4,47	384	14,1	3,88	333	11,1	3,28	282	8,4	2,69	232	6,1	2,50	431	18,2	2,10	180	4,0						
	1	400	3,72	320	10,2	3,23	277	8,1	2,74	235	6,1	2,24	193	4,4	2,08	358	13,2	1,75	151	2,9						
CRC-ECM 9	10	1395	9,60	825	54,0	8,31	714	42,6	7,02	604	32,2	5,74	493	22,9	-	-	-	4,45	383	15,0						
	7,5	1175	8,49	730	43,5	7,35	632	34,3	6,22	535	26,0	5,08	437	18,5	-	-	-	3,94	339	12,1						
	5	945	7,22	621	32,7	6,25	538	25,8	5,29	455	19,5	4,33	372	14,0	-	-	-	3,36	289	9,1						
	3	785	6,28	540	25,6	5,45	468	20,2	4,61	396	15,3	3,77	324	11,0	-	-	-	2,93	252	7,2						
	1	605	5,12	440	17,8	4,44	381	14,1	3,76	323	10,7	3,08	265	7,7	-	-	-	2,40	206	5,0						

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

AIR FLOW AND CORRECTION FACTORS

Air flow and correction factors for emission with different available pressures

Mod.	Vdc	Qv (m³/h)										K1										K2									
		Ap (Pa)										Ap (Pa)										Ap (Pa)									
		0	5	10	15	20	25	30	35	40	0	5	10	15	20	25	30	35	40	0	5	10	15	20	25	30	35	40			
2	10	330	312	288	257	223	171	88	-	-	1,00	0,95	0,89	0,82	0,73	0,60	0,32	-	-	1,00	0,95	0,88	0,80	0,72	0,58	0,29	-	-			
	8,5	307	276	251	213	162	92	29	-	-	1,00	0,91	0,85	0,75	0,61	0,36	0,06	-	-	1,00	0,90	0,83	0,73	0,59	0,34	0,03	-	-			
	7,5	270	252	219	178	103	-	-	-	-	1,00	0,94	0,84	0,72	0,46	-	-	-	-	1,00	0,94	0,83	0,70	0,44	-	-	-	-			
	6,5	248	227	187	130	56	-	-	-	-	1,00	0,93	0,80	0,60	0,26	-	-	-	-	1,00	0,92	0,78	0,58	0,24	-	-	-	-			
	5	220	187	126	55	-	-	-	-	-	1,00	0,88	0,65	0,30	-	-	-	-	-	1,00	0,86	0,63	0,27	-	-	-	-	-			
	3	170	122	45	-	-	-	-	-	-	1,00	0,77	0,32	-	-	-	-	-	-	1,00	0,75	0,29	-	-	-	-	-	-			
	2	144	82	-	-	-	-	-	-	-	1,00	0,65	-	-	-	-	-	-	-	1,00	0,63	-	-	-	-	-	-	-			
1	120	68	-	-	-	-	-	-	-	1,00	0,64	-	-	-	-	-	-	-	1,00	0,62	-	-	-	-	-	-	-	-			
4	10	515	499	477	448	401	332	247	100	-	1,00	0,97	0,94	0,89	0,82	0,71	0,56	0,22	-	1,00	0,97	0,93	0,88	0,80	0,69	0,54	0,19	-			
	8,5	459	444	419	377	323	229	54	-	-	1,00	0,97	0,93	0,85	0,76	0,58	0,10	-	-	1,00	0,97	0,92	0,84	0,74	0,56	0,07	-	-			
	7,5	430	396	363	320	240	89	-	-	-	1,00	0,93	0,87	0,79	0,63	0,24	-	-	-	1,00	0,92	0,86	0,77	0,61	0,21	-	-	-			
	6,5	394	374	333	272	135	-	-	-	-	1,00	0,95	0,87	0,74	0,41	-	-	-	-	1,00	0,95	0,86	0,73	0,39	-	-	-	-			
	5	350	308	255	107	-	-	-	-	-	1,00	0,90	0,78	0,37	-	-	-	-	-	1,00	0,89	0,76	0,35	-	-	-	-	-			
	3	280	227	99	-	-	-	-	-	-	1,00	0,84	0,43	-	-	-	-	-	-	1,00	0,83	0,41	-	-	-	-	-	-			
	2	233	170	-	-	-	-	-	-	-	1,00	0,78	-	-	-	-	-	-	-	1,00	0,76	-	-	-	-	-	-	-			
1	210	126	-	-	-	-	-	-	-	1,00	0,67	-	-	-	-	-	-	-	1,00	0,65	-	-	-	-	-	-	-				
6	10	735	696	673	622	558	431	286	168	-	1,00	0,95	0,93	0,87	0,80	0,66	0,47	0,27	-	1,00	0,95	0,92	0,86	0,78	0,64	0,45	0,24	-			
	8,5	650	628	583	525	421	269	110	-	-	1,00	0,97	0,91	0,84	0,71	0,49	0,18	-	-	1,00	0,97	0,90	0,82	0,69	0,47	0,15	-	-			
	7,5	610	564	528	437	284	129	-	-	-	1,00	0,94	0,89	0,77	0,55	0,25	-	-	-	1,00	0,93	0,87	0,75	0,53	0,22	-	-	-			
	6,5	558	510	457	340	189	-	-	-	-	1,00	0,93	0,85	0,68	0,41	-	-	-	-	1,00	0,92	0,83	0,66	0,39	-	-	-	-			
	5	495	432	352	154	-	-	-	-	-	1,00	0,89	0,76	0,38	-	-	-	-	-	1,00	0,88	0,74	0,36	-	-	-	-	-			
	3	395	319	151	82	-	-	-	-	-	1,00	0,84	0,46	0,24	-	-	-	-	-	1,00	0,82	0,44	0,21	-	-	-	-	-			
	2	351	221	-	-	-	-	-	-	-	1,00	0,70	-	-	-	-	-	-	-	1,00	0,68	-	-	-	-	-	-	-			
1	305	177	-	-	-	-	-	-	-	1,00	0,65	-	-	-	-	-	-	-	1,00	0,63	-	-	-	-	-	-	-				
7	10	890	846	815	756	699	590	486	341	191	1,00	0,96	0,93	0,87	0,82	0,72	0,62	0,46	0,25	1,00	0,95	0,92	0,86	0,81	0,70	0,60	0,44	0,22			
	8,5	805	756	703	652	560	437	279	114	-	1,00	0,95	0,89	0,84	0,75	0,62	0,42	0,14	-	1,00	0,94	0,88	0,83	0,73	0,60	0,40	0,11	-			
	7,5	755	696	637	558	459	300	140	-	-	1,00	0,93	0,87	0,79	0,68	0,48	0,21	-	-	1,00	0,93	0,86	0,77	0,66	0,46	0,18	-	-			
	6,5	703	637	560	449	336	175	-	-	-	1,00	0,92	0,83	0,70	0,56	0,30	-	-	-	1,00	0,91	0,82	0,68	0,54	0,27	-	-	-			
	5	610	532	443	313	133	-	-	-	-	1,00	0,89	0,78	0,59	0,26	-	-	-	-	1,00	0,88	0,76	0,57	0,23	-	-	-	-			
	3	500	398	255	83	-	-	-	-	-	1,00	0,83	0,59	0,18	-	-	-	-	-	1,00	0,81	0,57	0,15	-	-	-	-	-			
	2	452	348	178	-	-	-	-	-	-	1,00	0,81	0,47	-	-	-	-	-	-	1,00	0,79	0,45	-	-	-	-	-	-			
1	400	279	-	-	-	-	-	-	-	1,00	0,75	-	-	-	-	-	-	-	1,00	0,73	-	-	-	-	-	-	-				
9	10	1395	1310	1225	1180	1125	1060	1000	930	860	1,00	0,95	0,90	0,87	0,84	0,80	0,77	0,73	0,68	1,00	0,94	0,89	0,86	0,82	0,78	0,75	0,71	0,66			
	8,5	1265	1175	1080	1020	960	880	800	720	640	1,00	0,94	0,88	0,84	0,80	0,75	0,70	0,64	0,59	1,00	0,93	0,86	0,82	0,78	0,73	0,68	0,62	0,57			
	7,5	1175	1075	970	910	840	750	650	545	450	1,00	0,93	0,85	0,81	0,77	0,70	0,63	0,54	0,46	1,00	0,92	0,84	0,80	0,75	0,68	0,61	0,52	0,44			
	6,5	1085	980	865	790	700	605	500	350	200	1,00	0,92	0,83	0,78	0,71	0,63	0,54	0,39	0,21	1,00	0,91	0,82	0,76	0,69	0,61	0,52	0,37	0,18			
	5	945	835	680	580	460	315	160	-	-	1,00	0,90	0,77	0,68	0,57	0,40	0,18	-	-	1,00	0,89	0,75	0,66	0,55	0,38	0,15	-	-			
	3	785	620	400	230	50	-	-	-	-	1,00	0,83	0,59	0,35	0,01	-	-	-	-	1,00	0,81	0,57	0,33	-	-	-	-	-			
	2	700	500	200	-	-	-	-	-	-	1,00	0,77	0,34	-	-	-	-	-	-	1,00	0,75	0,32	-	-	-	-	-	-			
1	605	390	-	-	-	-	-	-	-	1,00	0,71	-	-	-	-	-	-	-	1,00	0,69	-	-	-	-	-	-	-				

Qv = air flow

K1 = Total cooling emission correction factors

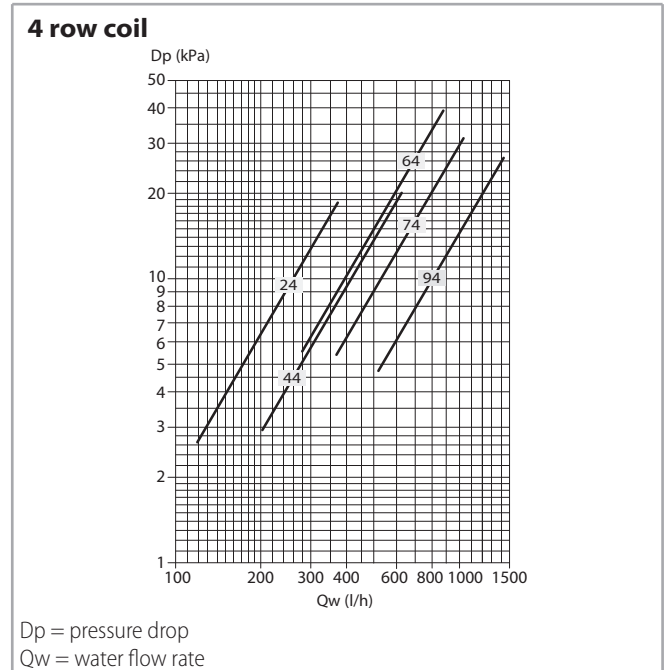
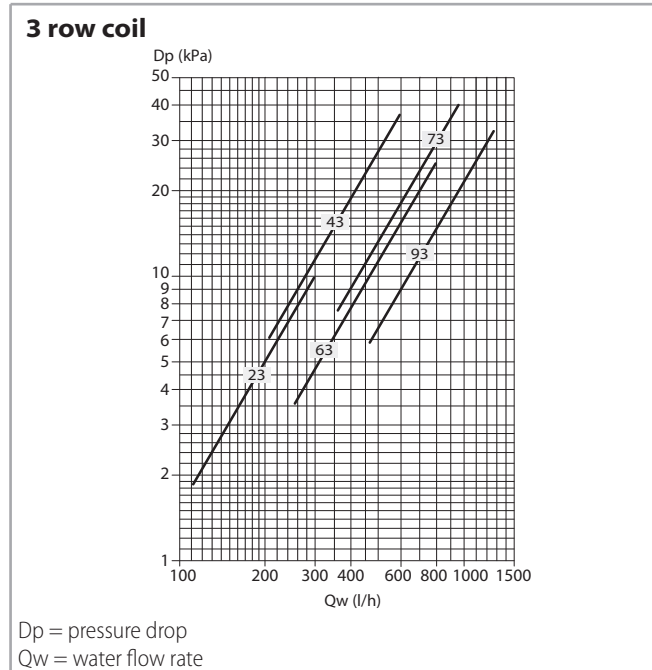
K1 = Sensible cooling emission and heating emission correction factors

Ap = Available static pressure

Vdc = Inverter power

WATER SIDE PRESSURE DROP

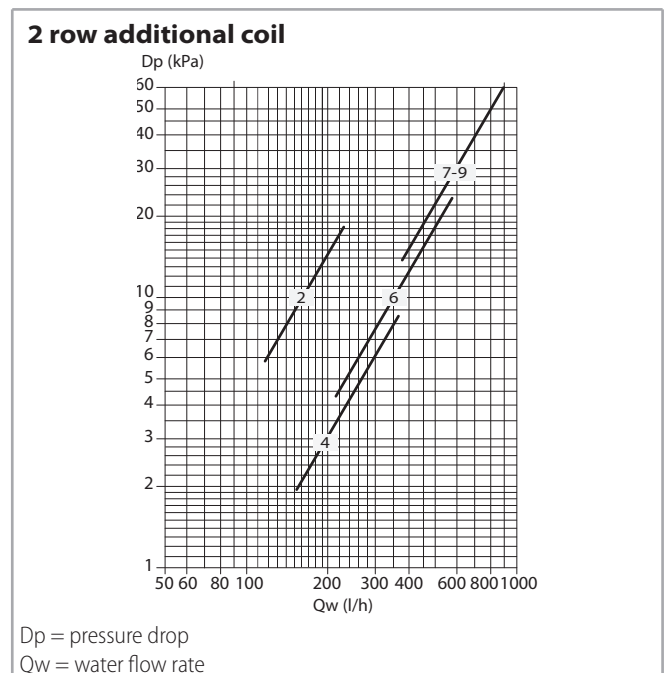
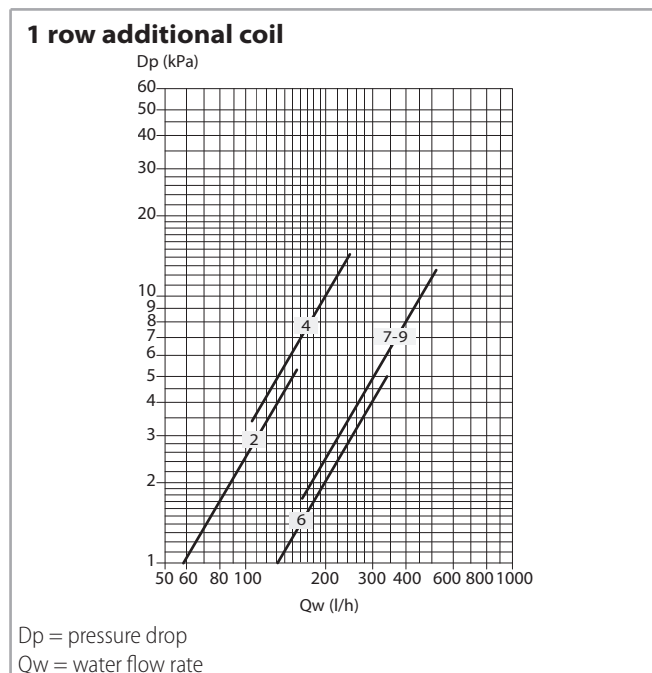
Main coil



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.

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

Additional coil



The water pressure drop figures refer to a mean water temperature of 60 °C; for different temperatures, multiply the pressure drop figures by the correction factors K.

K correction factor	Mean water temperature (°C)			
	40	50	70	80
	1,12	1,06	0,94	0,88

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

(*) for entering water temperatures below + 6 °C, contact the technical department

Attention: For the M0 units the maximum installation height is 2,8 m.

Note: on heating it must be paid attention to rooms where the floor temperature is particularly low (for example less than 6 °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.

Coils water flow limits

3 row coil

Model		CRC-ECM 23	CRC-ECM 43	CRC-ECM 63	CRC-ECM 73	CRC-ECM 93
Water flow rate Min.	l/h	100		150		200
Water flow rate Max.	l/h	500	750	1000	1500	2000

4 row coil

Model		CRC-ECM 24	CRC-ECM 44	CRC-ECM 64	CRC-ECM 74	CRC-ECM 94
Water flow rate Min.	l/h	100	150		200	300
Water flow rate Max.	l/h	750	1000	1500	2000	2250

1 row additional coil

Model		CRC-ECM 23+1	CRC-ECM 43+1	CRC-ECM 63+1	CRC-ECM 73+1	CRC-ECM 93+1
Water flow rate Min.	l/h	50			100	
Water flow rate Max.	l/h	250	350	500	650	750

Model		CRC-ECM 24+1	CRC-ECM 44+1	CRC-ECM 64+1	CRC-ECM 74+1	CRC-ECM 94+1
Water flow rate Min.	l/h	50			100	
Water flow rate Max.	l/h	250	350	500	650	750

2 row additional coil

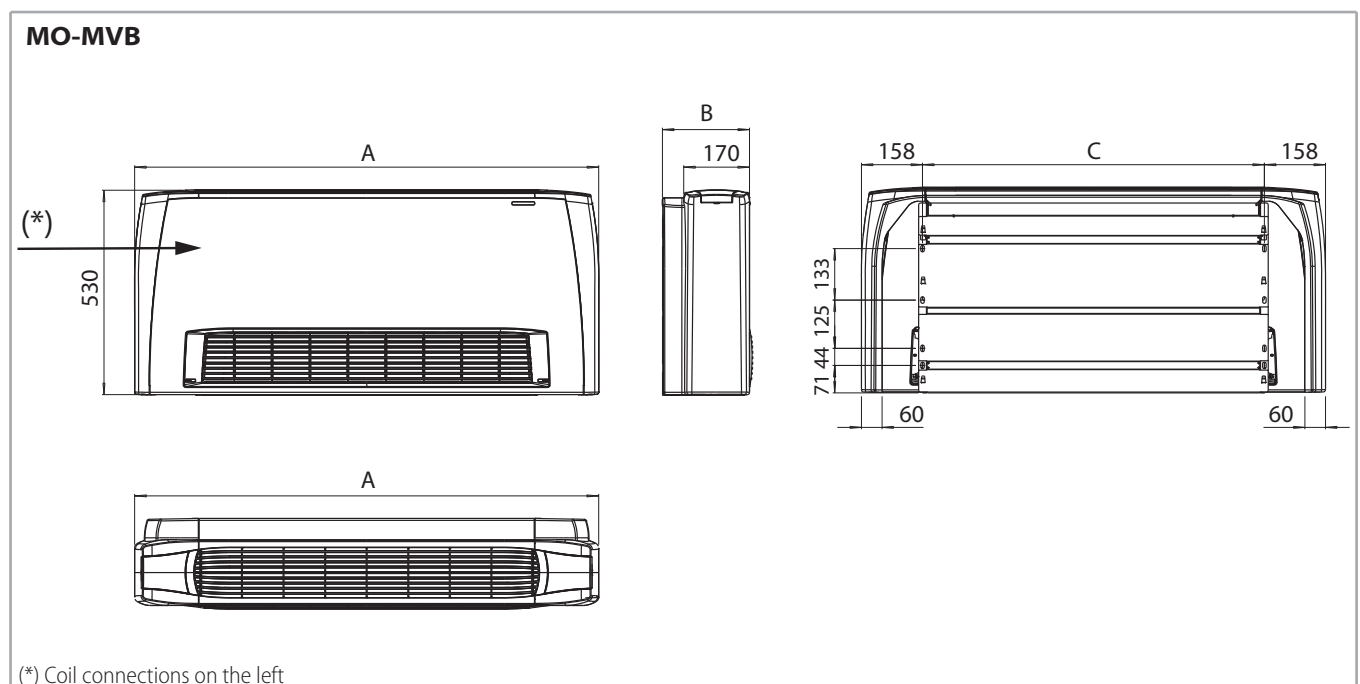
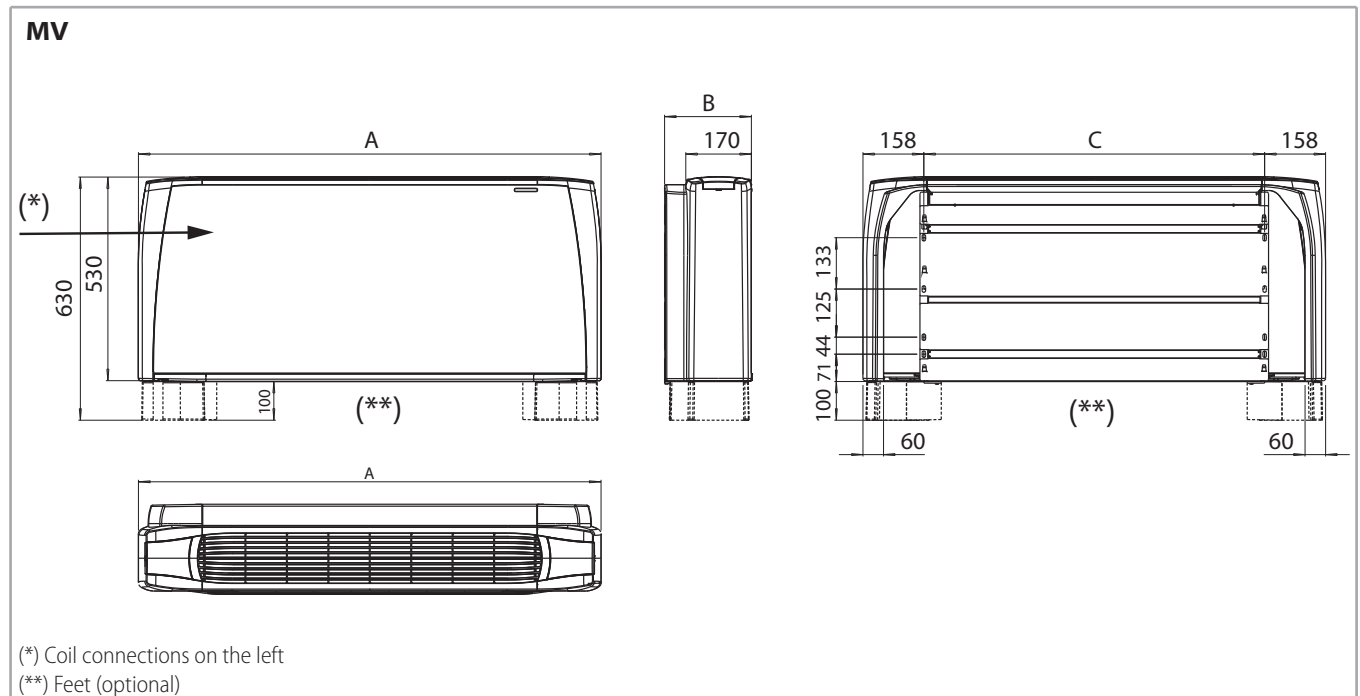
Model		CRC-ECM 23+2	CRC-ECM 43+2	CRC-ECM 63+2	CRC-ECM 73+2	CRC-ECM 93+2
Water flow rate Min.	l/h	50			100	
Water flow rate Max.	l/h	250	350	500	650	750

Motor electrical data - max. absorption

Model		CRC-ECM 2	CRC-ECM 4	CRC-ECM 6	CRC-ECM 7	CRC-ECM 9
Motor absorption	W	21	25	32	41	99
Current absorbed	A	0,18	0,22	0,28	0,34	0,81

DIMENSION, WEIGHT, WATER CONTENT - MV/MO-MVB VERSION

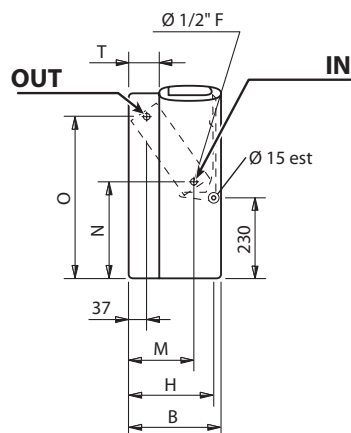
Dimensions



Model		CRC-ECM 2	CRC-ECM 4	CRC-ECM 6	CRC-ECM 7	CRC-ECM 9
A	mm	770	985	1200	1415	
B	mm		225			255
C	mm	454	669	884	1099	

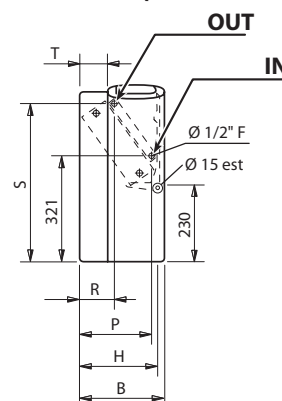
Coil connections

3 or 4 row coils



IN = Water inlet
OUT = Water outlet

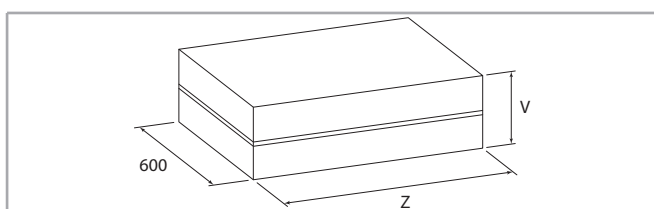
Heating additional coil (1 or 2 row coil)



IN = Water inlet
OUT = Water outlet

Model		CRC-ECM 2	CRC-ECM 4	CRC-ECM 6	CRC-ECM 7	CRC-ECM 9
B	mm		225			255
H	mm		205			235
M	mm		145			170
N	mm		260			270
O	mm		460			450
P	mm		185			210
R	mm		105			110
S	mm		475			465
T	mm		55			85

Packed unit



Model		2	4	6	7	9
V	mm		260			290
Z	mm	820	1035	1250		1465

Weight (kg)

Weight with packaging

Model	2	4	6	7	9
3 rows	17,2	22,5	27,7	32,1	35,9
3+1 rows	18,0	23,7	29,2	33,9	37,7
3+2 rows	18,6	24,4	30,1	35,0	38,8
4 rows	18,0	23,5	29,0	33,6	37,4
4+1 rows	18,8	24,7	30,5	35,4	39,2

Weight without packaging

Model	2	4	6	7	9
3 rows	15,4	20,2	24,9	28,8	32,2
3+1 rows	16,2	21,4	26,4	30,6	34,0
3+2 rows	16,8	22,1	27,3	31,7	35,1
4 rows	16,2	21,2	26,2	30,3	33,7
4+1 rows	17,0	22,4	27,7	32,1	35,5

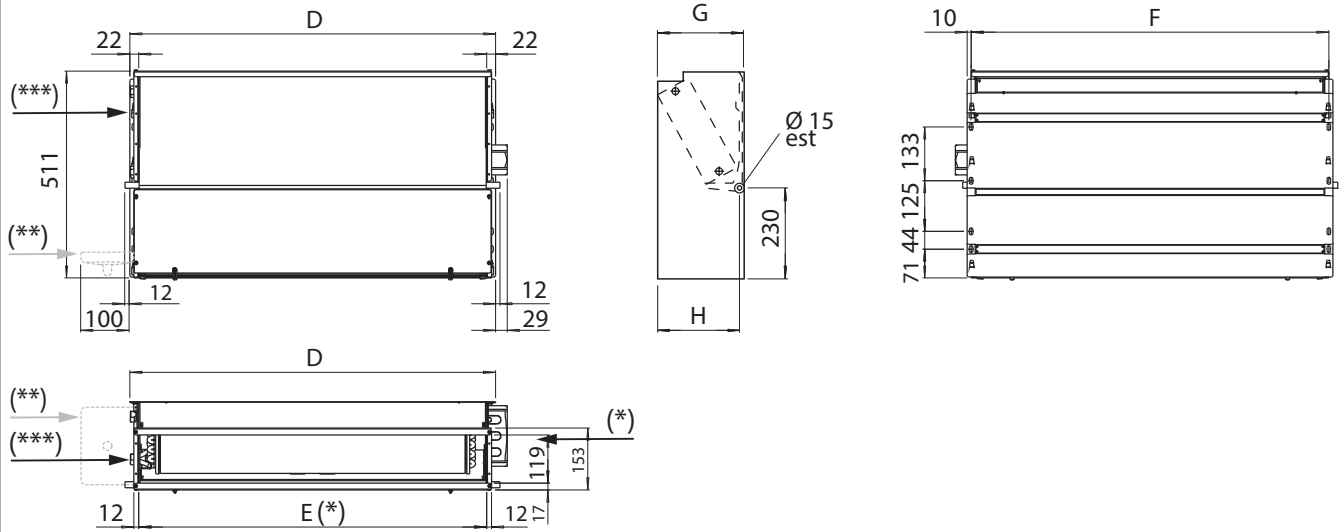
Water content (l)

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

DIMENSION, WEIGHT AND WATER CONTENT IV-IO VERSION

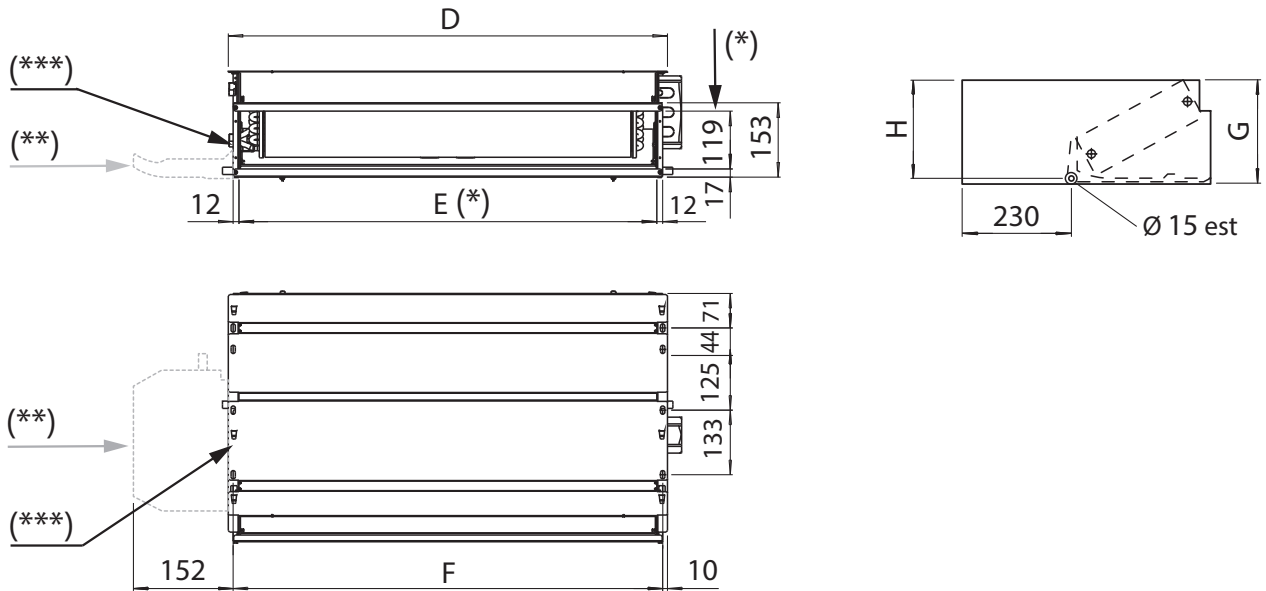
Dimensions

IV-IO Vertical Installation



(*) = Supply frame dimension E x 119 mm
 (**) = Auxiliary condensate tray (optional)
 (***) = Coil connections on the left

IV-IO Horizontal Installation

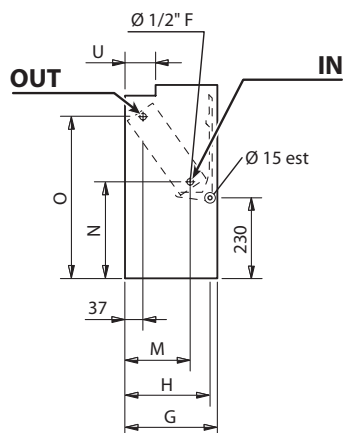


(*) = Supply frame dimension E x 119 mm
 (**) = Auxiliary condensate tray (optional)
 (***) = Coil connections on the left

Model		CRC-ECM 2	CRC-ECM 4	CRC-ECM 6	CRC-ECM 7	CRC-ECM 9
D	mm	474	689	904	1119	
E	mm	430	645	860	1075	
F	mm	454	669	884	1099	

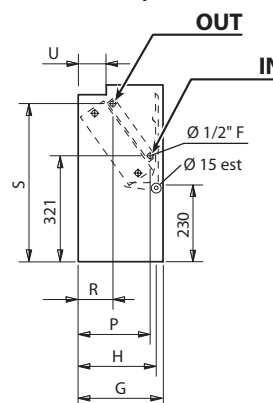
Coil connections

3 or 4 row coils



IN = Water inlet
OUT = Water outlet

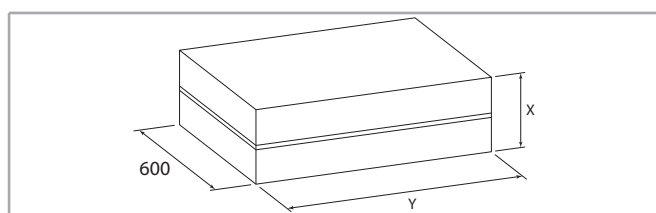
Heating additional coil (1 or 2 row coil)



IN = Water inlet
OUT = Water outlet

Model		CRC-ECM 2	CRC-ECM 4	CRC-ECM 6	CRC-ECM 7	CRC-ECM 9
G	mm		218			248
H	mm		205			235
M	mm		145			170
N	mm		260			270
O	mm		460			450
P	mm		185			210
R	mm		105			110
S	mm		475			465
U	mm		65			95

Packed unit



Model		2	4	6	7	9
X	mm		260			290
Y	mm	820		1035		1250

Weight (kg)

Weight with packaging

Model	2	4	6	7	9
3 rows	13,6	18,1	22,8	27,0	30,4
3+1 rows	14,4	19,3	24,3	28,8	32,2
3+2 rows	15,0	20,0	25,2	29,9	33,3
4 rows	14,4	19,1	24,1	28,5	31,9
4+1 rows	15,2	20,3	25,6	30,3	33,7

Weight without packaging

Model	2	4	6	7	9
3 rows	11,8	16,3	20,5	24,2	27,3
3+1 rows	12,6	17,5	22,0	26,0	29,1
3+2 rows	13,2	18,2	22,9	27,1	30,2
4 rows	12,6	17,3	21,8	25,7	28,8
4+1 rows	13,4	18,5	23,3	27,5	30,6

Water content (l)

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

CONTROLS FITTED ON THE UNIT

All the **Carisma CRC-ECM** units can be supplied with electronic controls to be fitted that allows managing one single unit.

The room temperature can be controlled through electronic room thermostats fitted on the unit, with different solutions according to every ambient conditions.

The electronic thermostats of the **-ECM** range let the speed control, regulate the room temperature precisely and are suitable when the user wants to set the fan speed.

The most evolved **CB-T-ECM** version allows the manual and the automatic speed switch or the continuous variation of the fan speed.

For the **Carisma CRC-ECM** units equipped with Crystall filter or electric heater, the **CB-T-ECM-IAQ** control is available.

Note: all the controls are described in detail in the "Fan Coil Control Range literature".

Controls

CB-T-ECM control



CB-T-ECM-IAQ control (only ECM version with Crystall filter)



CB-TOUCH CONTROL FITTED ON THE UNIT

Controls

All the **CRC-ECM** units can be supplied and managed with the **CB-Touch** fitted control with Bluetooth e WiFi technology (only version with casing; available mounted in the factory or supplied separately)

The **CB-Touch** control fitted on the unit offers 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.

The **CB-Touch** control is equipped with a microprocessor with BLE / WiFi feature, that allows to control at distance or remotely all the units installed in your home.

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.

Sabiana WiFi



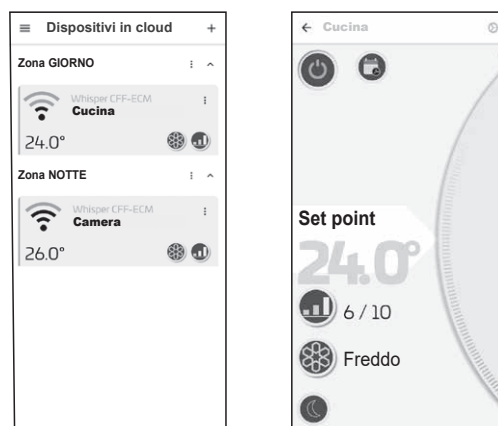
Sabiana WiFi is the App for the control at a distance of your Sabiana system of climatisation. Free and easy to use, it needs only a wireless network and a smartphone with internet connection. Using the "Cloud" it allows to manage, program and supervise the status of Your air conditioners wherever You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



The **CB-Touch** controls fitted on the unit, whose characteristics are described on the next pages, can be supplied either fitted on the unit or with separate packaging; those controls fitted on the unit that are separately bought can be used only with UP power unit to buy separately.

The Sabiana electronic thermostats regulate the room temperature precisely and are suitable when the user wants to set the fan speed.

CB-Touch control fitted on the unit features



The CB-Touch control allows to control and adjust the room temperature in a simple and intuitive way by means of a probe positioned in the lower part of the unit.

CB-Touch allows to select the desired operation mode, heat, cool or just ventilate the room, set a desired temperature set and adjust the fan operating speed according to your needs.

The maximum operation speed will be set to reach quickly the comfort temperature. Otherwise the minimum operation speed will be set when a noiseless operation is required, or the auto mode to optimise thermal and sound comfort.

With the low temperature cut-out thermostat (T3 sensor collocated between the coil fins; already wired for the units with fitted control, included together with the power unit and to wire for the versions without control) and according to the selected operation there will be as follows:

- winter cycle - the fan will only start operating if the water temperature is above 30 °C, thus preventing cold air from flowing out from the unit.
- summer cycle - the fan will only start operating if the water temperature is below 21 °C, thus preventing hot air from flowing out from the unit.

To improve comfort, it is also possible to select the night mode which minimises the fan speed and smartly changes the set temperature independently.

The control has a memory, so all settings will not be lost either in the event of switching off or power failure.

After a period of 3 minutes since the last action the brightness of the panel is reduced (SLEEPING mode) in order to increase the energy saving and the comfort during the night; only the symbol  is shown on the display.

By pressing the same button twice, the brightness is restored.

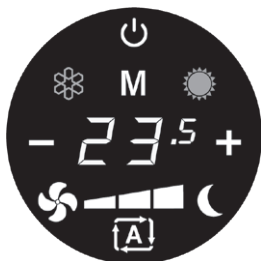
The control is designed to be managed at distance with the smart features of one's own telephone by using the bluetooth wireless connection or wifi via APP downloadable from the Web.

IMPORTANT!: the device supports WiFi networks (IEEE 802.11) of b, g and n type (WiFi 4) with the following security methods :

- WEP
- WPA-PSK
- WPA2-PSK
- WPA2-enterprise

CB-Touch control fitted on the unit

Fitted		Not Fitted	
ID	Code	ID	Code
CB-Touch-M	9066905	CB-Touch-S	9066903



The control must always be connected with the UP-Touch-M / UP-Touch-S power unit (to be ordered separately).

The main characteristics are:

- Set the unit ON or stand-by
- Operation mode (Summer/Winter/Ventilation)
- Set the fan speed
- Set the automatic fan speed
- Possibility to use the T1 sensor as return air probe (mounted on the power unit)
- Possibility to use the T3 sensor as low temperature cut-out thermostat (mounted on the power unit)
- It allows to use the T2 sensor as Change-over (mounted on the power unit).
- Night mode
- Alarm messages
- OFFSET regulation
- Button lock controller
- Regulation of LED brightness
- To be controlled by APP Sabiana, both locally (BLE)[®], and locally or at a distance via Cloud (WiFi)

Control power absorption: see the UP-Touch power unit



POWER UNITS AND PROBES

UP-Touch power unit

Fitted		Not Fitted	
ID	Code	ID	Code
UP-Touch-M	9066906	UP-Touch-S	9066904



Power unit for CB-Touch-M and CB-Touch-S controls

Power unit to be installed on the end unit (fan coil interface).

- It controls the motor/the fan and the fan coil valve.
- It is connected to the electric supply.
- It receives the information required to manage such parts from the CB-Touch control
- Possibility to use the T1 sensor (included) for the T1 function which allows the return air control.
- Possibility to use the T3 sensor (included) for the T3 function as water coil low temperature cut-out thermostat (summer and winter operation)
- Possibility to use the T2 probe (included) for the T2 function which controls the summer/winter switch (change-over).
- It allows to control up to 10 units (1 master and 9 slaves).
- Max. network length: 100 meters.
- Max cable length between control and first connected power unit: 20 meters.

Power unit absorption: 11 VA (6 W)

T2 probe

ID	Code
T2	9025310



NTC probe type, to be placed on the water supply pipe upstream of the valves (not to be used with 2 way valves).

The T2 probe is to be used as Change-Over for 2 pipe systems, for the automatic switch of the operation mode. If water temperature is lower than 20 °C, cooling mode is set; on the other hand, if water temperature exceeds 30 °C, heating mode is set.

CONFIGURATION AND ELECTRONIC WALL CONTROLS

All the **CRC-ECM** units can be supplied with a wide range of electronic wall controls that allows managing one single unit or several units (by using the power units).

The room temperature can be controlled through wall electronic room thermostats, with different solutions according to every ambient conditions.

The **WM-AU**, **T-MB2**, **WM-503-AC-EC** and **WM-S-ECM** electronic thermostats regulate the room temperature precisely and are suitable when the user wants to set the fan speed.

Note: all the controls are described in detail in the "Fan Coil Control Range literature".

Configuration

For this fan coil configuration, the 1-10 Vdc signal, which controls the inverter, must be supplied by a controller with the following signal specifications:

Fan coil control signal

- Fan OFF = 0 Vdc
- Fan ON > 1 Vdc
- Max. speed = 10 Vdc

ECM Blac inverter board

- 0÷10 Vdc Circuit Input Impedance Value = 68 kOhm

Controls

WM-AU control (*)



230 V 50-60 Hz

WM-S-ECM control



230 V 50 Hz

T-MB2 control (*)



230 V 50-60 Hz

WM-503-AC-EC control (**)



230 V 50 Hz

(*) To be used with **UPM-AU** or with **UP-AU**

(**) To be used with **UP-503-AC-EC** power unit only

Control systems

See from p. 57 for:

- the MB controls and units
- the KNX Bus System

CONTROLS AND UNITS MB VERSION

All the **Carisma CRC** and **CRC-ECM** units can be supplied with a wide range of controls, which allows managing one single unit or one or more groups of units by using the Modbus RTU - RS 485 communication protocol.

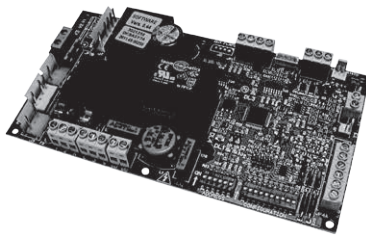
Units can be managed according to the Master/Slave logic (up to 20 units) or by supervisory components.

The system consists in a **MB** power board and a series of controls, such as the **T-MB2** wall control, the **RT03 / RR03 infra-red remote control**, the **PSM-DI** multifunctional control panel, the **Sabianet** supervisory program, the **T-DI** multifunctional Touch screen panel and the Web Gateway for **Sabiana Cloud SabWeb**.

Note: all the controls are described in detail in the "Fan Coil Control Range literature".

Controls

MB electronic board



T-MB2 control



RT03 / RR03 remote control



PC and Sabianet screenshot



T-DI Touch screen multifunction control panel

The T-DI multifunction control panel lets supervise and control more units with MB or SIOS boards; 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 + MB).

With the T-DI multifunction control panel it is also possible to control the units at a distance with the specific Sabiana Cloud App for Android and iOS.

The Sabiana Cloud application is simple to use and lets have complete control of all the connected units.

T-DI Touch screen multifunction control panel



Web gateway for Cloud

With the Web gateway for "Sabiana Cloud" it is possible to control at a distance up to 60 units, equipped with MB or SIOS boards (max. 60 units: SIOS + MB), 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.

Web gateway SabWeb for Sabiana Cloud



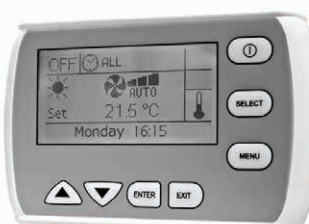
PSM-DI Multifunction control panel

With the PSM-DI multifunction control panel it is possible to control remotely up to 60 units, equipped with MB or SIOS boards (max. 60 units: SIOS + MB).

The PSM-DI multifunction control panel supervises via Bus network all the connected units.

The remote connection (stand-alone) is not possible.

PSM-DI multifunction control panel



KNX BUS SYSTEM

The KNX bus system is a building automation standard for controlling, managing and monitoring a wide range of products for:

- Heating, cooling, ventilation.
- Lighting.
- Alarm systems.
- Audio and video systems.
- Electricity and gas.

Since 2016, Sabiana is a certified member of the KNX association and the certified products can be added to this system in compliance with the tests carried out at KNX laboratories.



KNX devices

The Sabiana WM-KNX room thermostat controls and adjusts the temperature of a room or area in a building. In combination with one or several UP-KNX power units, the thermostat is able to control the operation of terminal units such as fan coils. The appliance consists of an

LCD display with adjustable backlight and a sensor for measuring the room temperature.

WM-KNX is suitable for installation in a wall recessed box (to be used with UP-KNX and with PL mounting plate only).

Note: all the controls are described in detail in the "Fan Coil Control Range literature".

Recessed thermostat WM-KNX



Power unit UP-KNX



WM-KNX with rectangular plate



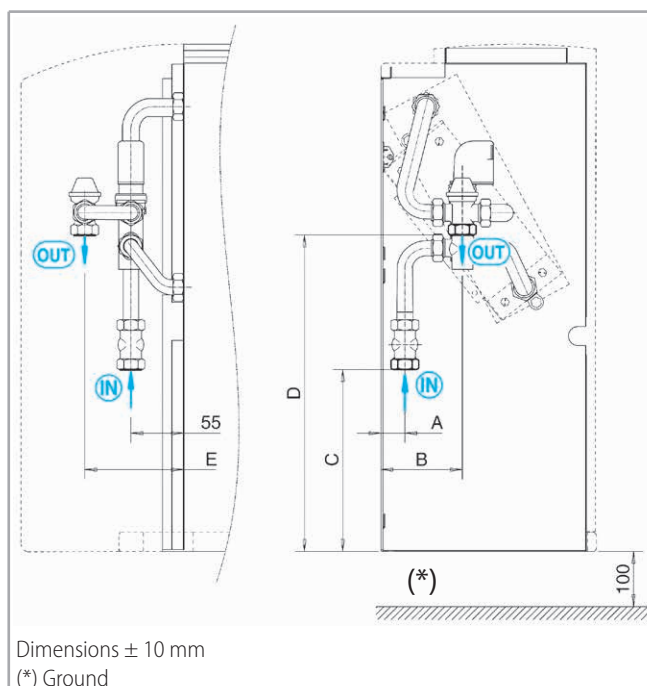
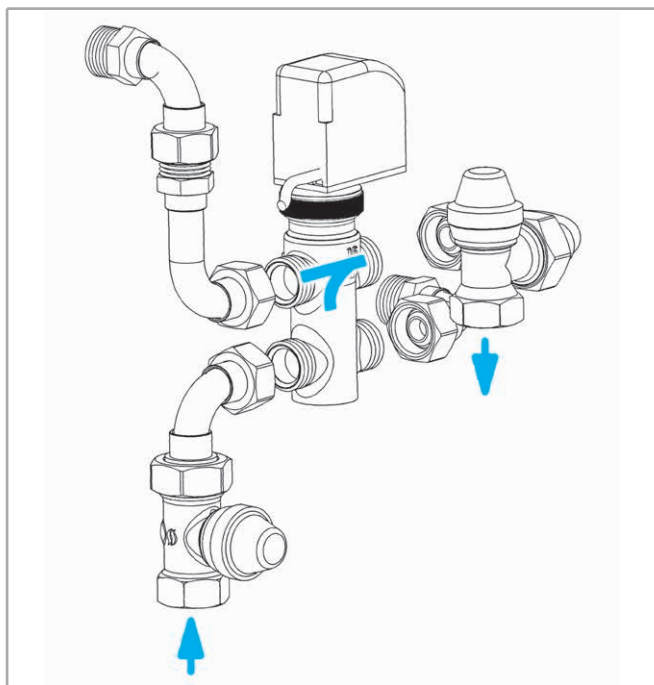
WM-KNX with square plate



ACCESSORIES

VBP main coil 3 way valve

Control valve kit: 3 way valve, ON-OFF 230 V, with electric motor and mounting kit with micrometric lockshield valve.
For versions **MV** / **MO-MVB** / **IV-IO**.

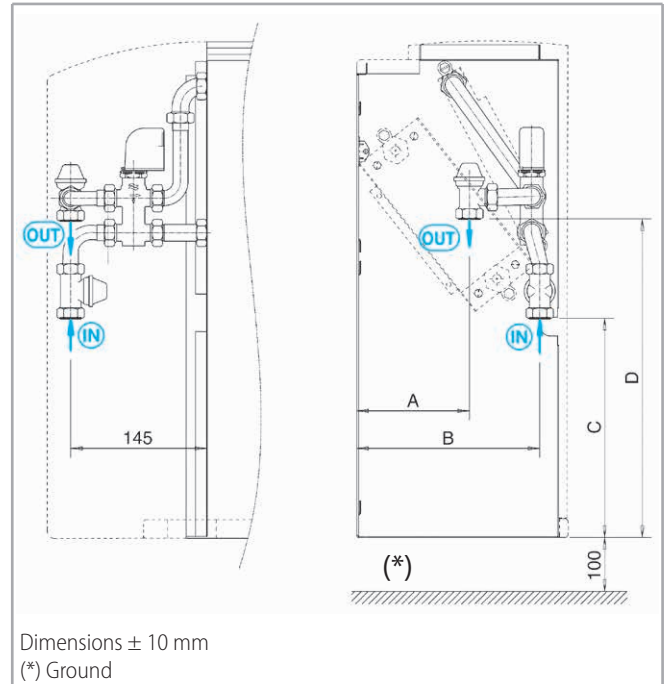
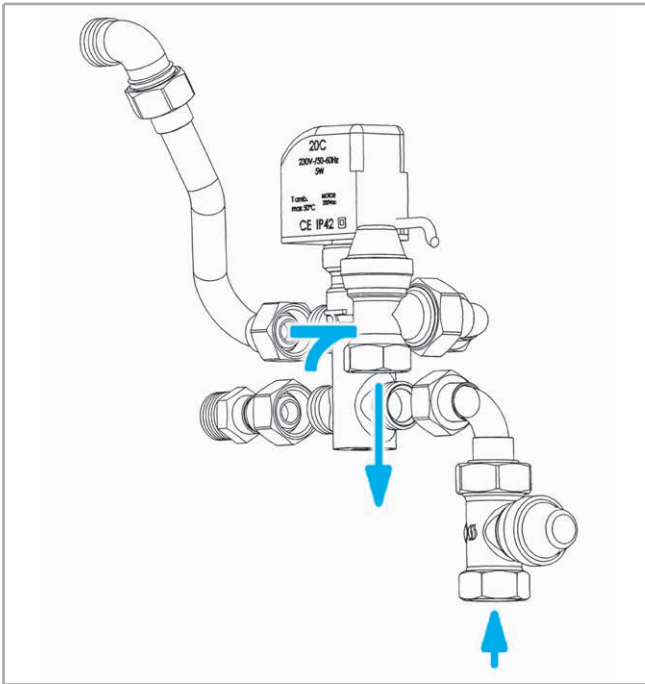


Model	Fitted		Not Fitted		Valve			Micrometric lockshield valve		
	ID	Code	ID	Code	DN	(Ø)	Kvs	DN	(Ø)	Kvs
1 ÷ 5	VBPM-C G1-5	9066561	VBPS-C G1-5	9066560	15	1/2"	1,6	15	1/2" F	2
6 - 7	VBPM-C G6-9	9060471	VBPS-C G6-9	9060474	20	3/4"	2,5	15	1/2" F	2
8 - 9	VBPM-C G6-9	9060471	VBPS-C G6-9	9060474	20	3/4"	2,5	15	1/2" F	2

Model	Dimensions (mm)				
	A	B	C	D	E
1 ÷ 5	25	85	190	290	105
6 - 7	25	85	190	290	105
8 - 9	50	120	185	290	105

VBA additional coil 3 way valve

Control valve kit: 3 way valve, ON-OFF 230 V, with electric motor and mounting kit with micrometric lockshield valve.
For versions **MV** / **MO-MVB** / **IV-IO**.



Model	Fitted		Not Fitted		Valve			Micrometric lockshield valve		
	ID	Code	ID	Code	DN	(Ø)	Kvs	DN	(Ø)	Kvs
1 ÷ 7	VBAM-C G1-9	9060472	VBAS-C G1-9	9060475	15	1/2"	1,6	15	1/2" F	2
8 - 9	VBAM-C G1-9	9060472	VBAS-C G1-9	9060475	15	1/2"	1,6	15	1/2" F	2

Model	Dimensions (mm)			
	A	B	C	D
1 ÷ 7	120	195	240	340
8 - 9	135	200	235	330

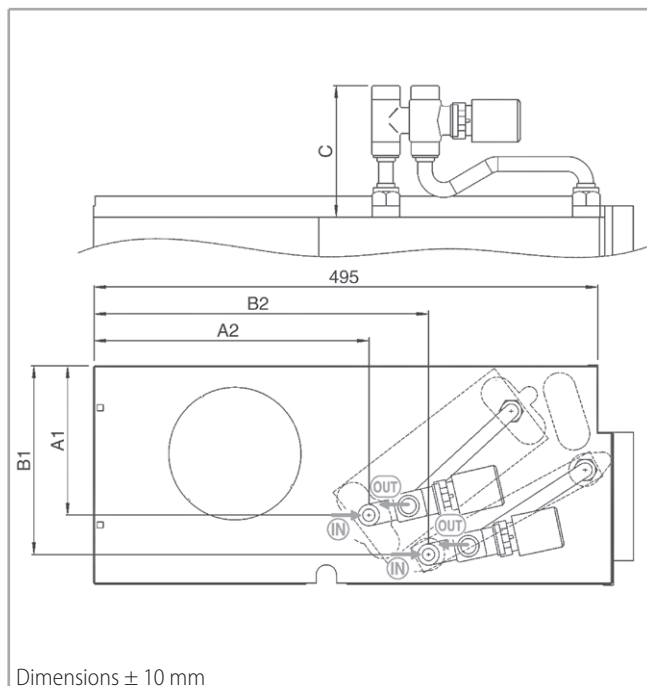
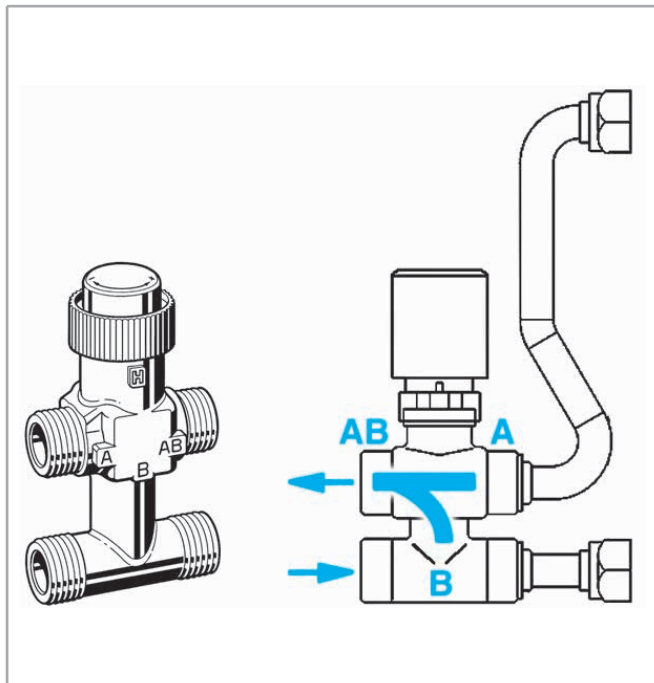
Water side pressure drop (Kvs) diagrams to p. 64

VS simplified kit for 3 way valve for main and additional coil (concealed models only)

3 way valve, ON-OFF 230 V with electric motor and mounting kit without micrometric lockshield valve.

Valve with flat connection.

For **IV-IO** versions.



Model	Main coil				DN	(Ø)	Kvs
	Fitted		Not Fitted				
	ID	Code	ID	Code			
1 ÷ 5	VSPM-C G1-5	9066571	VSPS-C G1-5	9066570	15	1/2"	1,6
6 - 7	VSPM-C G6-9	9060484	VSPS-C G6-9	9060481	20	3/4"	2,5
8 - 9	VSPM-C G6-9	9060484	VSPS-C G6-9	9060481	20	3/4"	2,5
	Additional coil						
1 ÷ 9	VSAM-C G1-9	9060483	VSAS-C G1-9	9060480	15	1/2"	1,6

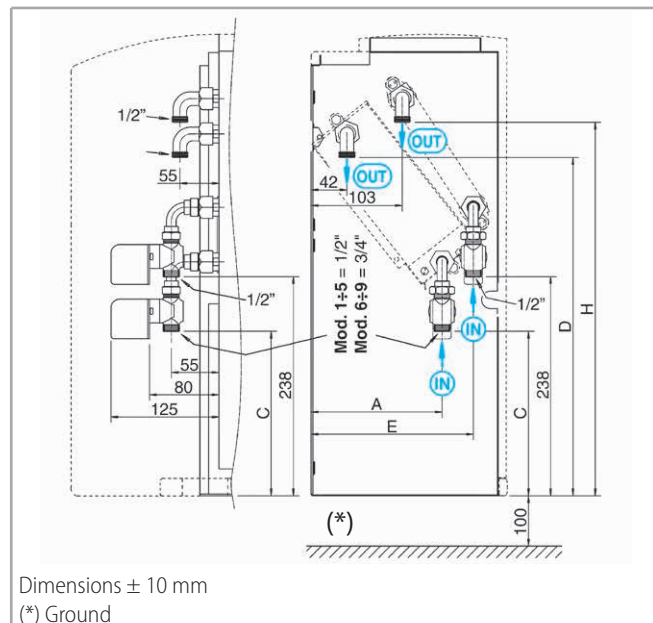
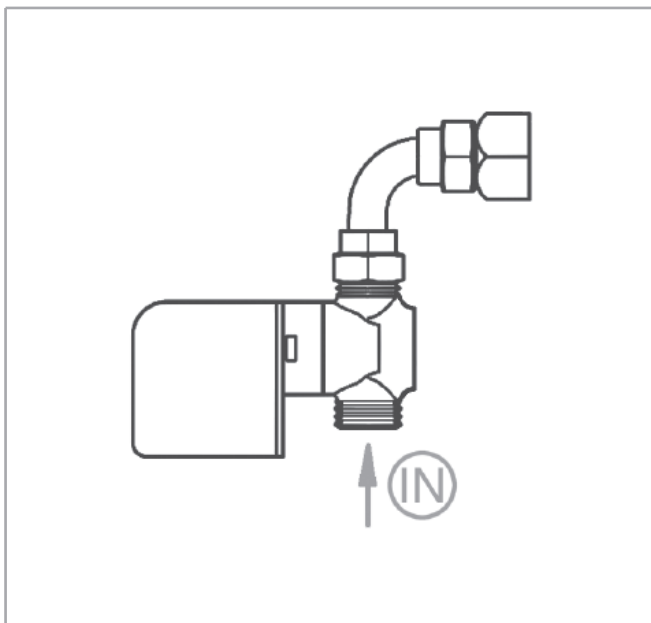
Model	Dimensions (mm)				
	Main		Additional		
	A1	A2	B1	B2	C
1 ÷ 5	152	270	185	330	116
6 - 7	152	268	185	330	124
8 - 9	177	270	210	327	124

Water side pressure drop (Kvs) diagrams to p. 64

V2 2 way valve for main and additional coil

2 way valve ON-OFF 230 V.

For versions **MV** / **MO-MVB** / **IV-IO**.

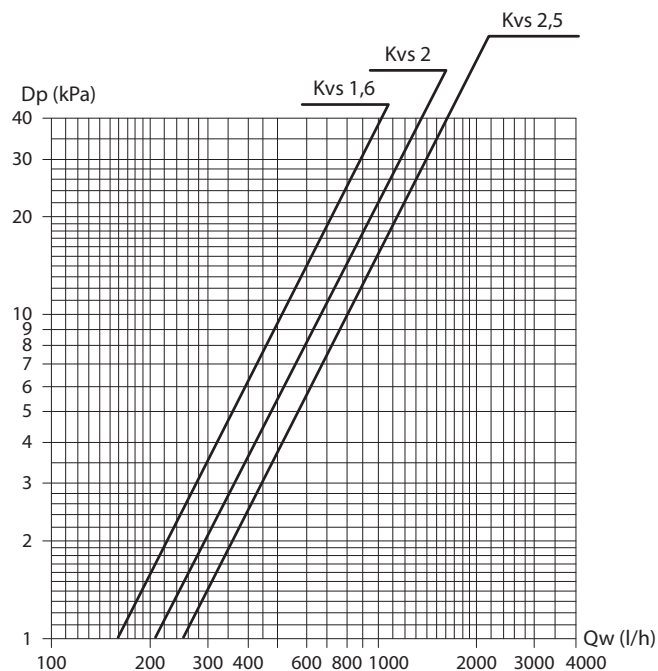


Model	Main coil				DN	(Ø)	Kvs
	Fitted		Not Fitted				
	ID	Code	ID	Code			
1 ÷ 5	V2M-C G1-5	9060476	V2S-C G1-5	9060478	15	1/2"	1,7
6 - 7	V2M-C G6-9	9060477	V2S-C G6-9	9060479	20	3/4"	2,8
8 - 9	V2M-C G6-9	9060477	V2S-C G6-9	9060479	20	3/4"	2,8
	Additional coil						
1 ÷ 9	V2M-C G1-5	9060476	V2S-C G1-5	9060478	15	1/2"	1,7

Model	Dimensions (mm)				
	A	Main C	D	Additional E	H
1 ÷ 5	149	180	438	186	456
6 - 7	150	181	438	186	456
8 - 9	176	175	422	210	440

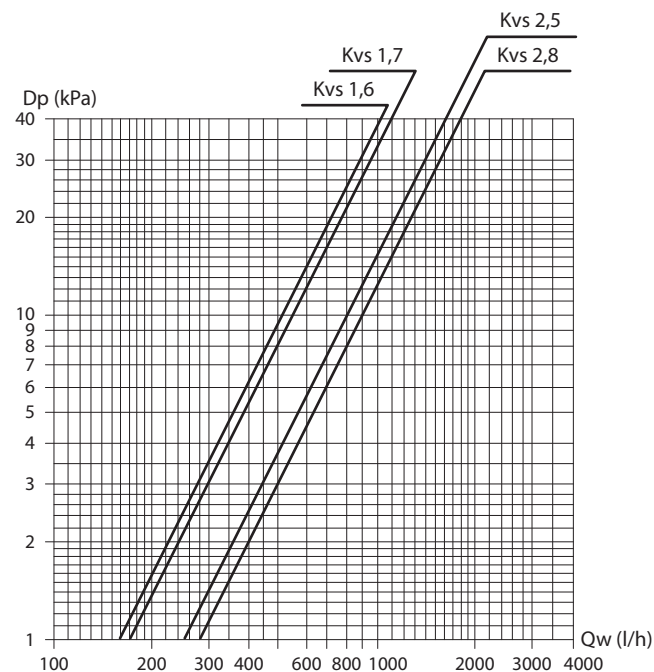
Water side pressure drop (Kvs) diagrams to p. 64

Water side pressure drop VBP - VBA



Dp = pressure drop
Qw = water flow rate

Water side pressure drop VS - V2



Dp = pressure drop
Qw = water flow rate

3 way double valve kit for 4 tube installation and single coil

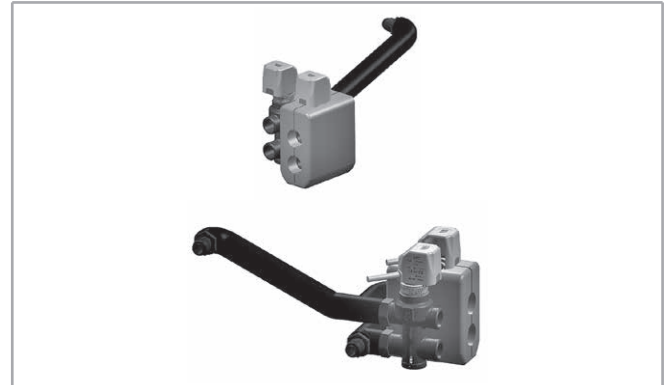
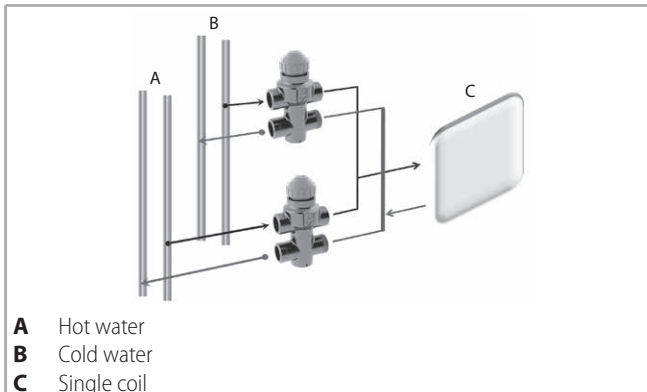
The kit consists of:

- Nr 2 special 3 way valves.
- Nr 2 actuators, 230 Volt ON-OFF, with internal safety micro switch.
- Insulated pipe kit.
- External valve insulation sleeve.

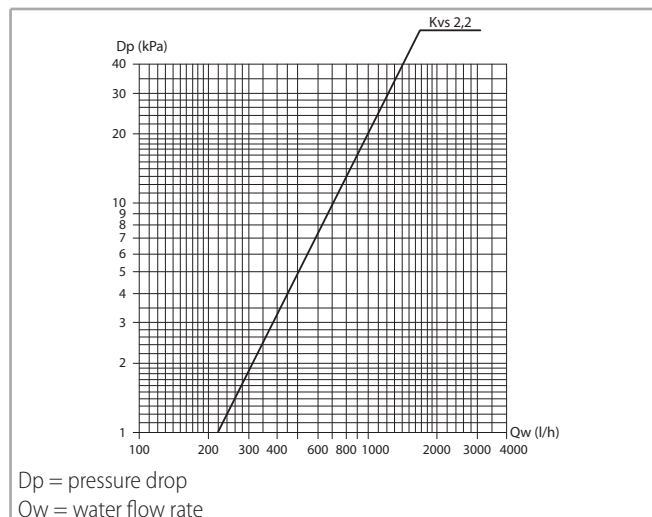
The kit uses a special 3 way valve which allows the transformation of the fan coil, equipped with one single coil, into a 4 tube installation.

The new **4x2**, valve has been designed to keep the water flow between flow and return perfectly separated, allowing its use in parallel.

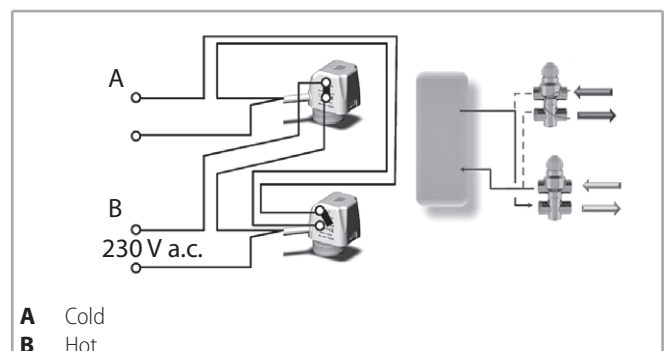
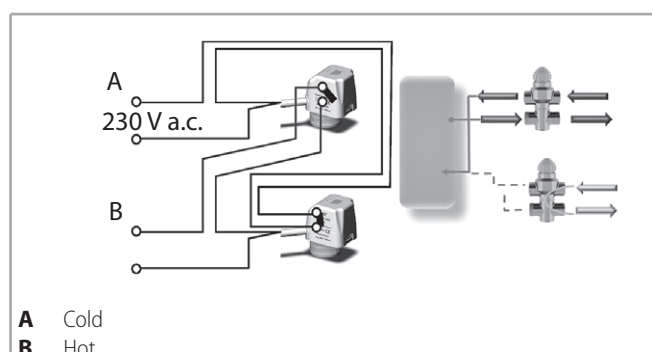
Therefore, it can be used on 4 pipe fan coil systems with one single heat-exchange coil on board the fan coil.



Model	FITTED		NOT FITTED		(Ø)	Kvs
	ID	Code	ID	Code		
1 ÷ 9	V3M4X2	9066572W	V3S4X2	9066562W	3/4"	2,2



Double actuator electrical connections

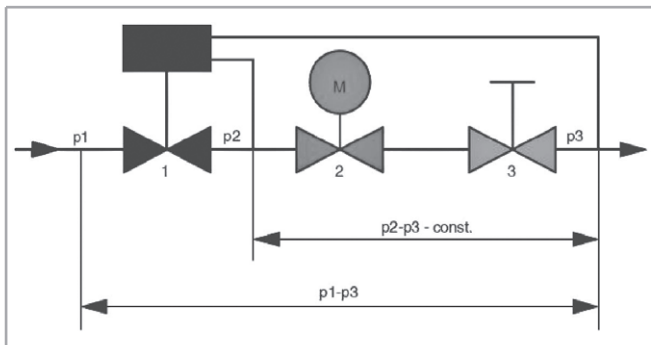


Balancing valves independent from the system pressure

- The balancing valve and a combined 2 way valve allow the regulation of the water flow value autonomously, regardless of the system pressure, and the control of the flow by using an ON/OFF electro-thermal actuator.
- The balancing valve allows you to balance the hydraulic system by supplying the required water flow, for each fan-coil, and to maintain it even under partial load conditions.

Valve operation logic

- "p1" the valve inlet pressure.
- "p3" the outlet pressure.
- "p2" the diaphragm activation pressure, which allows differential pressure "p2" – "p3" to be maintained at a constant value, in order to guarantee the water to flow at the set value.



The minimum differential pressure "p1" – "p3", required to guarantee the correct value of the set water flow rate, is indicated in the diagrams and in the related tables.

This is an essential factor to size the system pressure drop and pump pressure head.

The flow rate is kept at a constant value only if the valve pressure drop is higher than the indicated value.

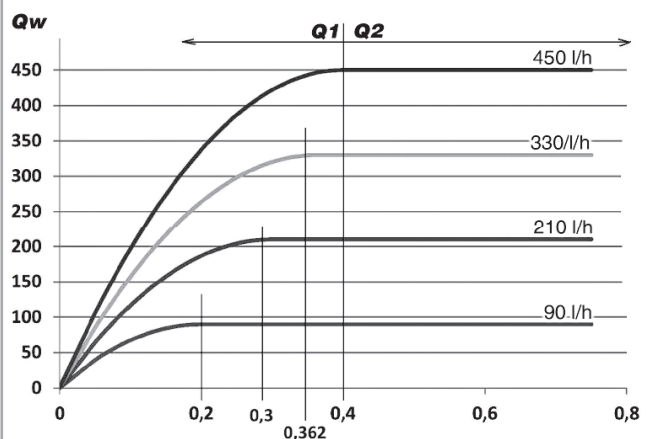
Minimum operating differential pressure

The minimum differential pressure and the balancing valve pressure drop must be considered to size the system pumps.

Flow rate is constant if the pressure drop is higher than that indicated in the diagrams and into the related tables.

The following diagram shows an example of the flow rate trend according to the pressure drop and calibration required.

Example



Qw = Water flow rate

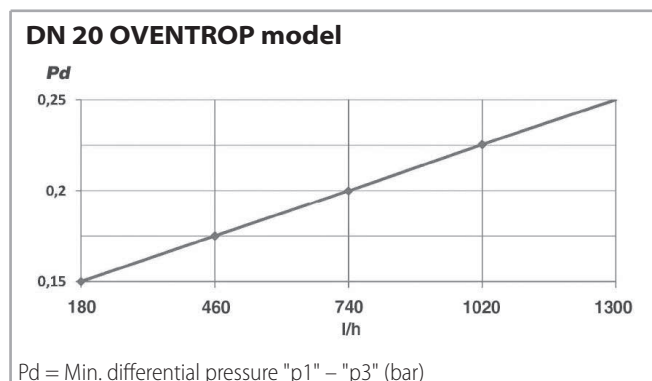
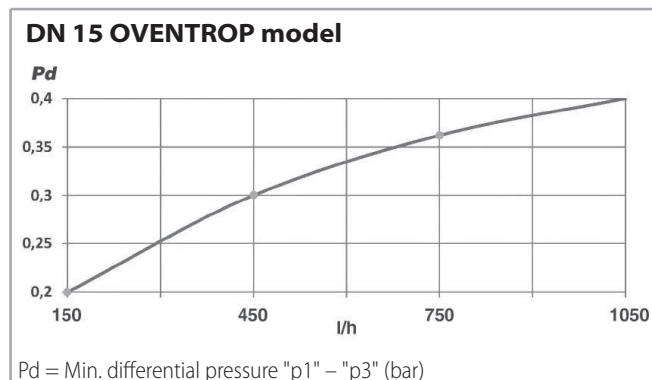
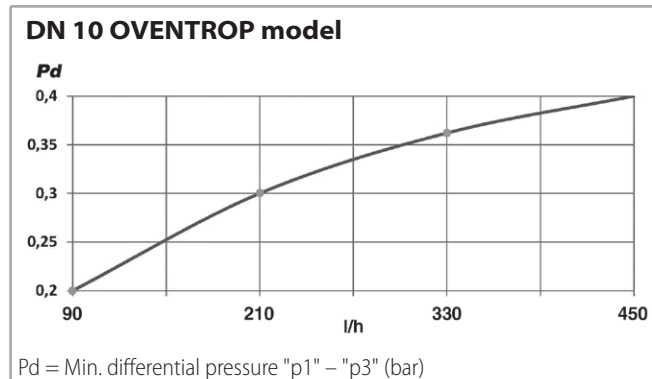
Pd = Min. differential pressure "p1" - "p3" (bar)

Q1 = Area with inconstant water flow

Q2 = Area with constant water flow

Kit with OVENTROP valve

In case of Oventrop valves, the valve upstream-downstream minimum differential pressure ("p1" – "p3"), which depends on the valve calibration value, must be exceeded to access the constant flow rate field.



E.g., when sizing the system pump, in which the DN 10 valves will be installed and in which 210 l/h are constantly required for each device, consider a useful pressure of 0.3 bar (to compensate the pressure drop of the valve) for each balancing valve. Therefore, the pressure drop values produced by the system balancing valves must be summed and the pump must be sized to produce a pressure equal to or greater than the value obtained previously.

OVENTROP technical characteristics

Model	DN 10	DN 15	DN 20
Flow rate range (l/h)	90 - 450	150 - 1050	180 - 1300
Kvs	1,1	1,8	2,5

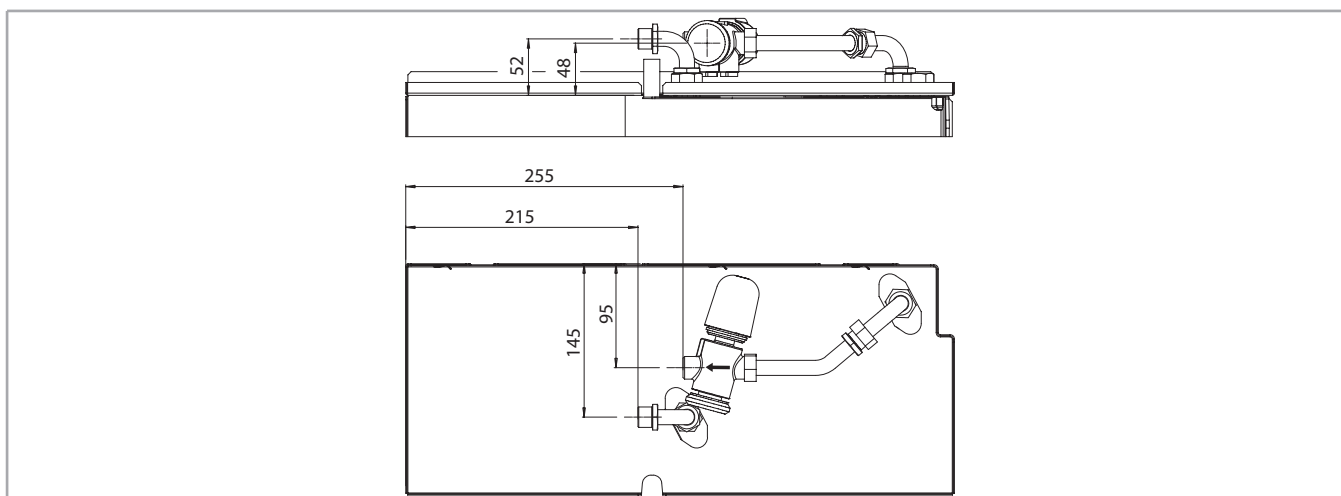
Operation limits of the OVENTROP balancing valves

- Maximum operating temperature: 120 °C
- Highest working pressure: 16 bar
- Maximum % of water/glycol mixture: 50%
- Minimum operating temperature: -10 °C
- Maximum differential pressure: 4 bar

Balancing valves for OVENTROP main coil

2 way valve for main coil and assembly kit.

The valve is supplied equipped with 230 Volt electro-thermal actuator for the ON/OFF control.

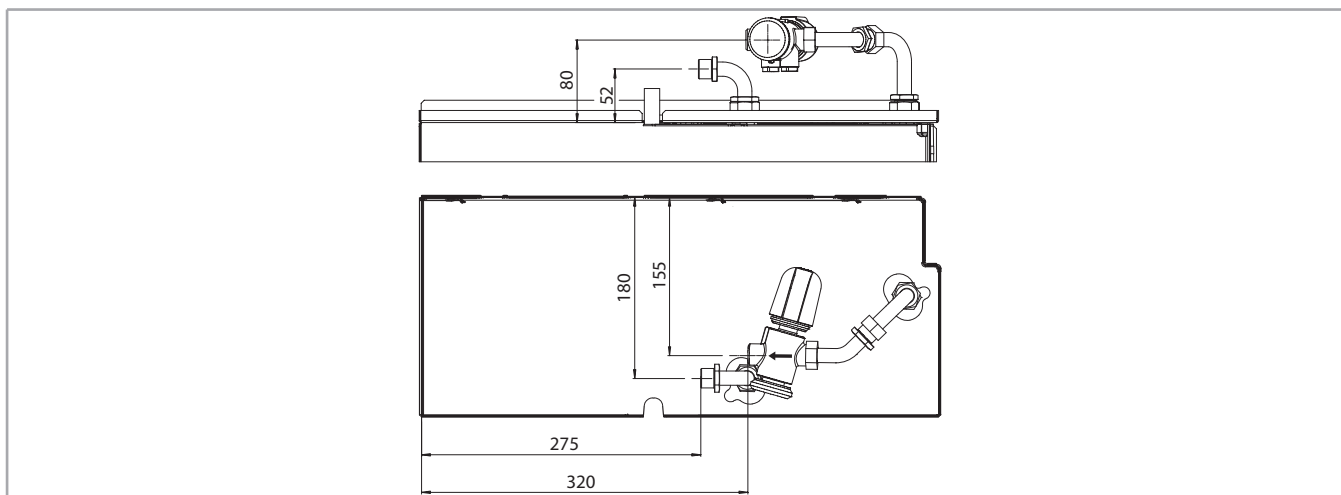


Model	Fitted		Not Fitted		DN	(Ø)	Range (l/h)
	ID	Code	ID	Code			
1 ÷ 3	V20VBPM 90-450	9066660	V20VBPS 90-450	9066650	10	1/2"	90-450
4 ÷ 7	V20VBPM 150-1050	9066661	V20VBPS 150-1050	9066651	15	3/4"	150-1050
8 - 9	V20VBPM 180-1300	9066662	V20VBPS 180-1300	9066652	20	1"	180-1300

Balancing valves for OVENTROP additional coil

2 way valve for additional coil and assembly kit.

The valve is supplied equipped with 230 Volt electro-thermal actuator for the ON/OFF control.



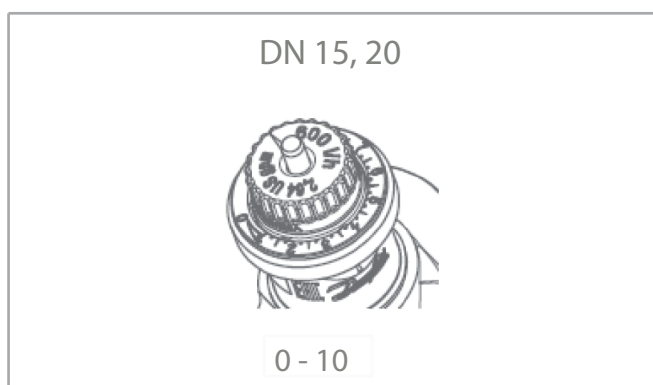
Model	Fitted		Not Fitted		DN	(Ø)	Range (l/h)
	ID	Code	ID	Code			
1 ÷ 5	V20VBAM 90-450	9066663	V20VBAS 90-450	9066653	10	1/2"	90-450
6 ÷ 9	V20VBAM 150-1050	9066664	V20VBAS 150-1050	9066654	15	3/4"	150-1050

Kit with DANFOSS valve

The flow rate can be calculated without any special tools. In order to modify the presetting (the factory value is 100%), go ahead as follow :

1. Remove the blue protective cover or the actuator fitted on the unit
2. Lift up the indicator (DN 25-32)
3. Turn (clockwise to decrease) on the new value
4. Set off the grey indicator again into the closed position (DN 25-32)

The presetting range shows flow rate values between 10-0 (DN 15-20). The clockwise rotation reduces the requested flow rate value whereas the counterclockwise rotation increases it.



DANFOSS technical characteristics

Nominal diameter		DN	15	15HF	20HF
Type		-	90-450	150-1050	190-1300
Flow rate range		l/h	650	1200	1900
Adjustment range		%	10-100		
Differential pressure	Dp min.	kPa	16	25	
	Dp max.		600		
Nominal pressure		PN	25		

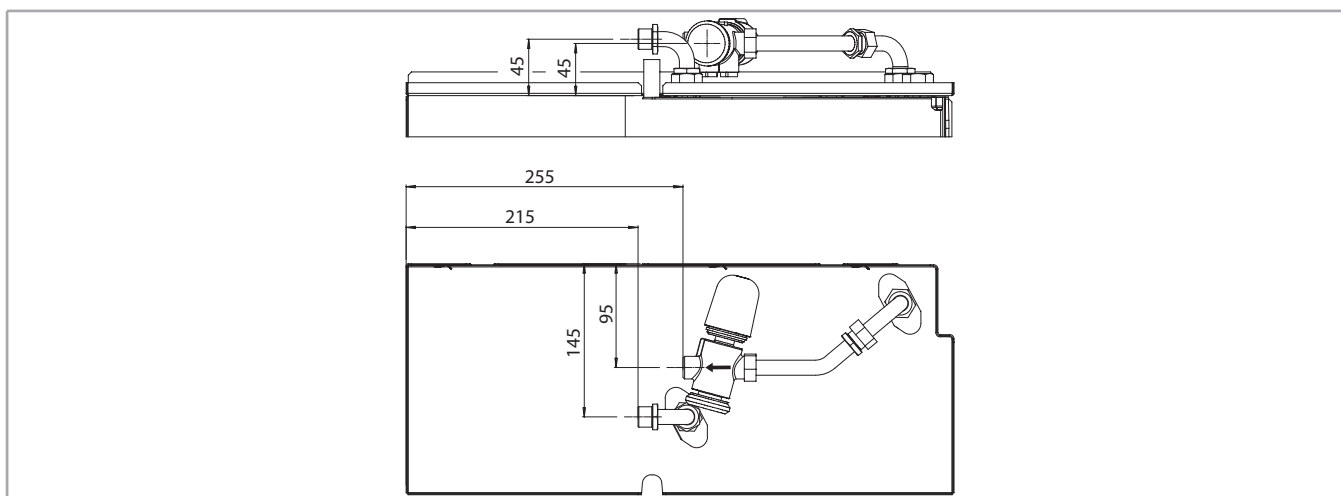
Operation limits of the DANFOSS balancing valves

- Maximum operating temperature: 120 °C
- Maximum % of water/glycol mixture: 50%
- Minimum operating temperature: -10 °C

Balancing valves for DANFOSS main coil

2 way valve for main coil and assembly kit.

The valve is supplied equipped with 230 Volt electro-thermal actuator for the ON/OFF control.



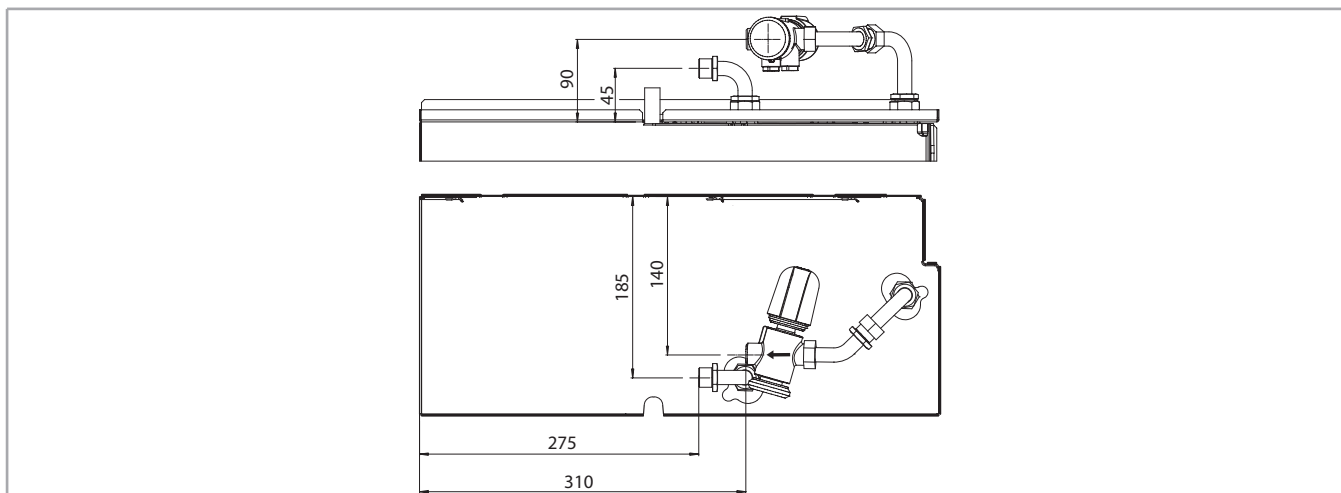
Model	Fitted		Not Fitted		DN	(Ø)	Range (l/h)
	ID	Code	ID	Code			
1 ÷ 3	V2DFBPM 90-450	9066665	V2DFBPS 90-450	9066655	15	3/4"	90-450
4 ÷ 7	V2DFBPM 150-1050	9066666	V2DFBPS 150-1050	9066656	15	3/4"	150-1050
8 - 9	V2DFBPM 190-1300	9066667	V2DFBPS 190-1300	9066657	20	1"	190-1300

Attention : the DN 15 valve diameter, unlike the Oventrop model, is of 3/4

Balancing valves for DANFOSS additional coil

2 way valve for additional coil and assembly kit.

The valve is supplied equipped with 230 Volt electro-thermal actuator for the ON/OFF control.



Model	Fitted		Not Fitted		DN	(Ø)	Range (l/h)
	ID	Code	ID	Code			
1 ÷ 5	V2DFBAM 90-450	9066668	V2DFBAS 90-450	9066658	15	3/4"	90-450
6 ÷ 9	V2DFBAM 150-1050	9066669	V2DFBAS 150-1050	9066659	15	3/4"	150-1050

BREEZE frame kit for wall concealed installation

For **IV** versions.

The kit is available in 3 sizes and allows the wall installation of the recessed Carisma CRC / CRC-ECM fan coil units.

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 kit** and the **Recessed box kit** have different codes as they are separately delivered with their own packaging and they must be assembled together.



The accessory can be used only with the models CRC and CRC-ECM version IV, sizes 2 ÷ 6.

When the Fan Coil is equipped with the Recessed box kit, it must be connected to a remote control and it is not possible to use the built-in electronic controls. The simplified valve kit can not be used with the Kit Breeze.

Technical characteristics of the main components

The aesthetic frame includes:

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

Perimeter frame, front panel and air intake grid 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 air supply louvre is made of extruded aluminum with satin finish.



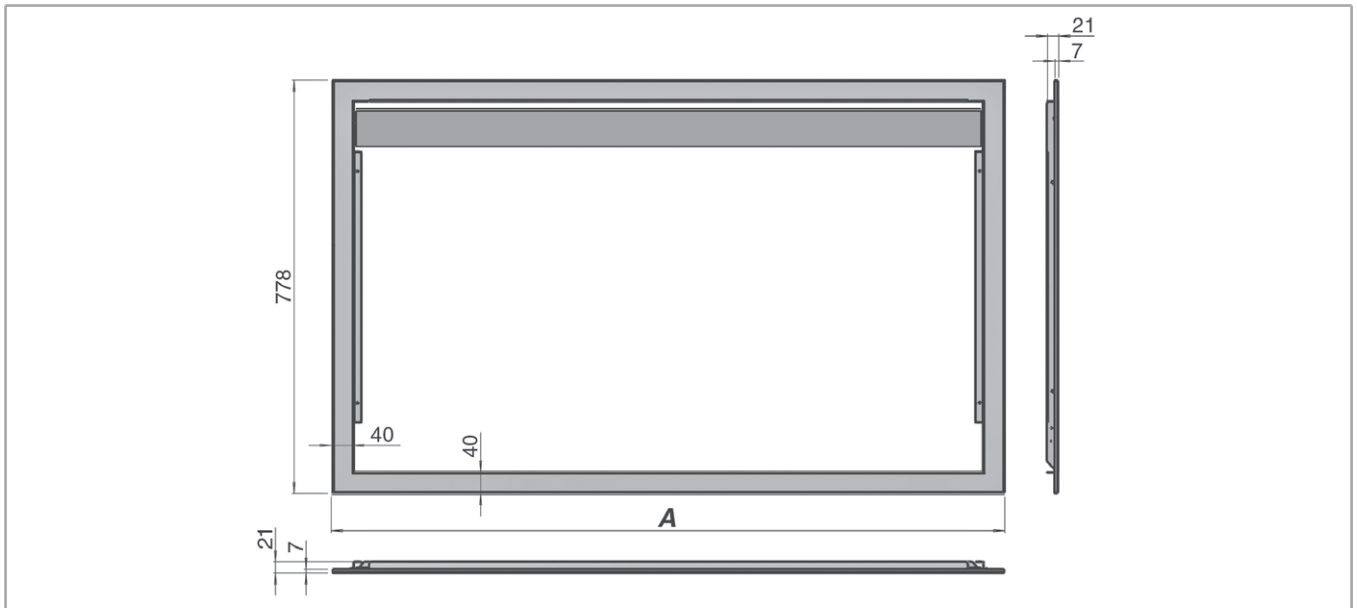
The air intake grid is fixed to the frame by using a simple and fast connecting system and it can be easily removed to clean the filter and the inner casing. The grid can be easily removed to clean the filter and the inner casing.



The recessed box is made of galvanized steel with openings for the electrical and hydraulic connections. To fit in the unit easily, there are 4 grub screws.



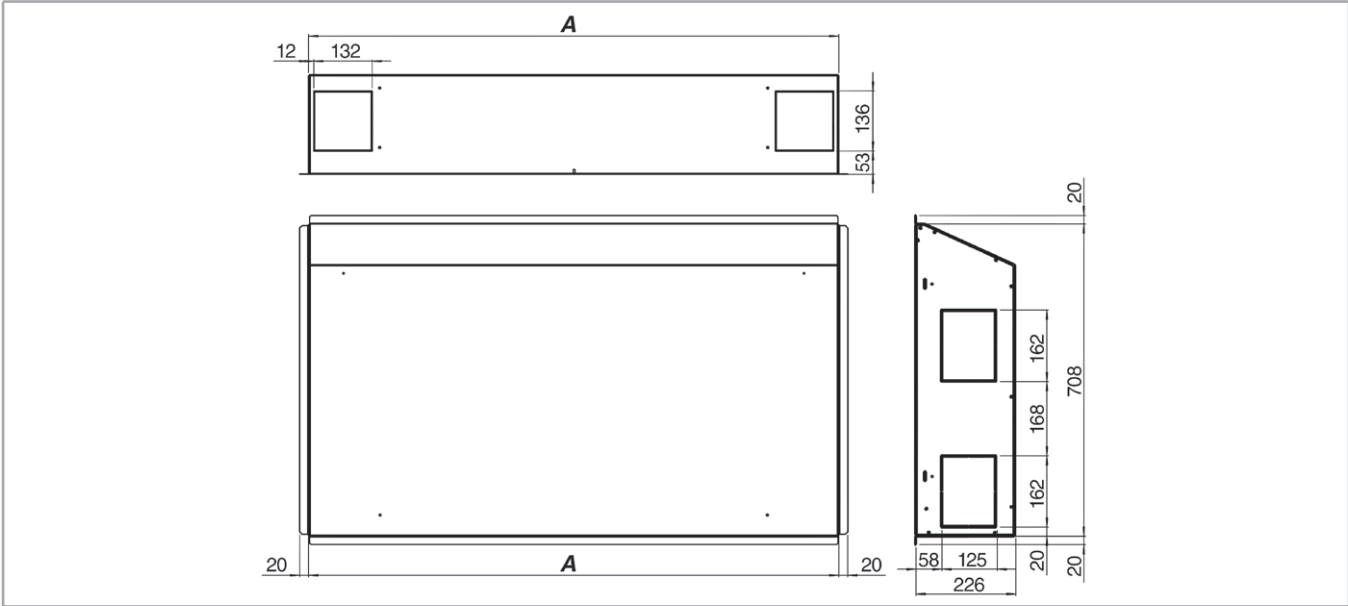
Aesthetic frame dimensions



Model	ID	Code	A mm	Aesthetic Frame Kit Weight (kg)
2	CBR-A	9076452	837	10,5
3 - 4	CBR-B	9076453	1052	12,5
5 - 6	CBR-C	9076455	1267	14,5



Recessed box dimensions



Model	ID	Code	A mm	Recessed Box Kit Weight (kg)
2	IBR-2	9076462	771	13
3 - 4	IBR 3-4	9076463	986	16
5 - 6	IBR 5-6	9076465	1201	18



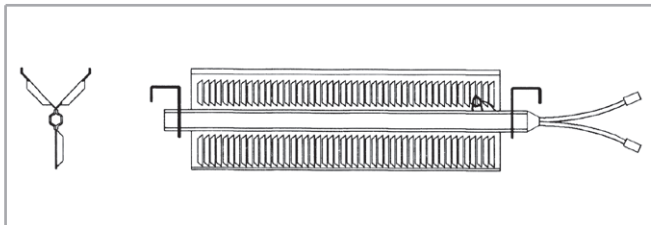
BEL electric heater

1 PHASE 230 V.

Safety thermostat and relay control integrated.

Not to be used with Crystall electrostatic filter.

The electric heater must be fitted in the factory during the production of the fan coil and cannot be added later.



MV-MO-MVB Version

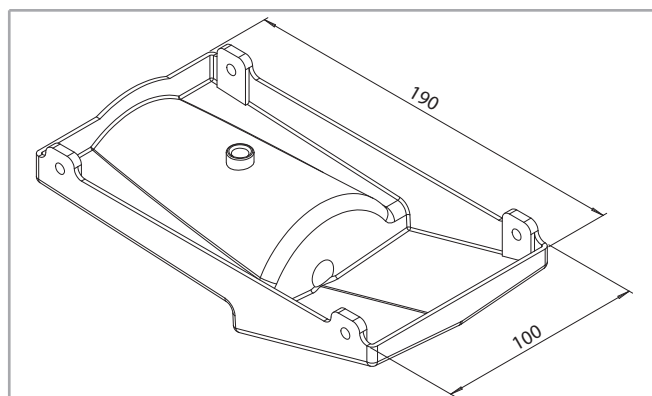
Model	ID	Code	Watt (W)
1	BEL-C G1 / 07	9066491	650
2	BEL-C G2 / 10	9066492	1000
	BEL-C G2 / 06	9066482	600
	BEL-C G2 / 04	9066472	400
3 - 4	BEL-C G3-4 / 15	9066493	1500
	BEL-C G3-4 / 09	9066483	900
	BEL-C G3-4 / 06	9066473	600
5 - 6	BEL-C G5-6 / 20	9066495	2000
	BEL-C G5-6 / 12	9066485	1250
	BEL-C G5-6 / 07	9066475	750
7 ÷ 9	BEL-C G7-9 / 25	9066497	2500
	BEL-C G7-9 / 15	9066487	1500
	BEL-C G7-9 / 10	9066477	1000

IV-IO version

Model	ID	Code	Watt (W)
1	BEL-I G1 / 07	9066611	650
2	BEL-I G2 / 10	9066612	1000
	BEL-I G2 / 06	9066602	600
	BEL-I G2 / 04	9066592	400
3 - 4	BEL-I G3-4 / 15	9066613	1500
	BEL-I G3-4 / 09	9066603	900
	BEL-I G3-4 / 06	9066593	600
5 - 6	BEL-I G5-6 / 20	9066615	2000
	BEL-I G5-6 / 12	9066605	1250
	BEL-I G5-6 / 07	9066595	750
7 ÷ 9	BEL-I G7-9 / 25	9066617	2500
	BEL-I G7-9 / 15	9066607	1500
	BEL-I G7-9 / 10	9066597	1000

BSV extension condensate collection tray to cover valve assembly

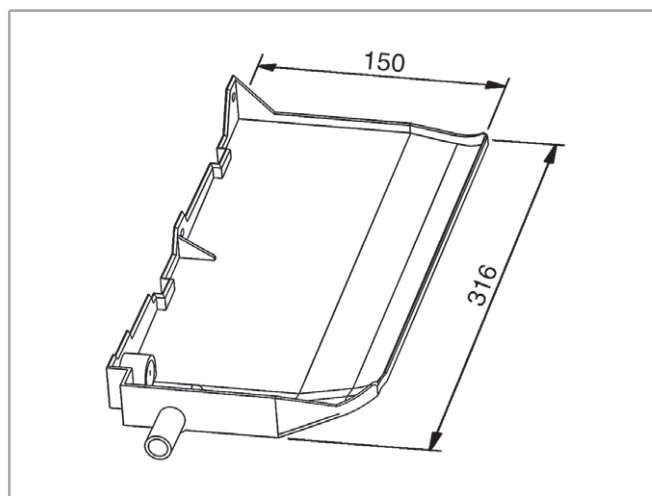
for vertical versions **MV / MVB / IV.**



Model	ID	Code
1 ÷ 9	BSV-C	6060400

BSO-C extension condensate collection tray to cover valve assembly

For **MO** horizontal versions with casing.

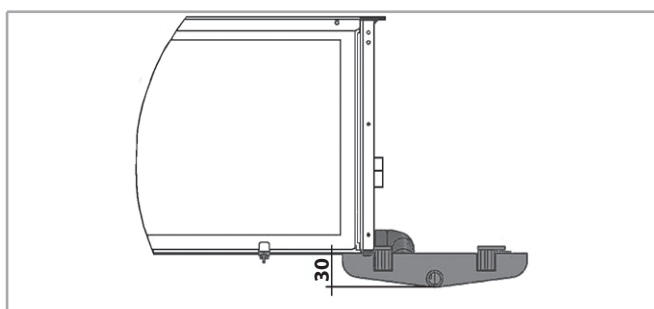
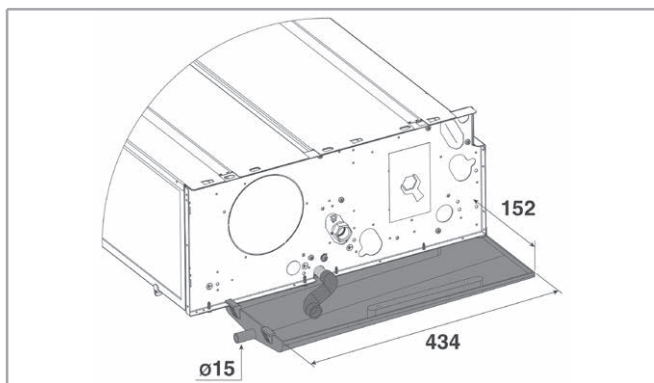


Model	LEFT		RIGHT	
	ID	Code	ID	Code
1 ÷ 9	BSO-C-SX	6060402	BSO-C-DX	6060403

BSI-C extension condensate collection tray to cover valve assembly

For **IO** horizontal versions without casing.

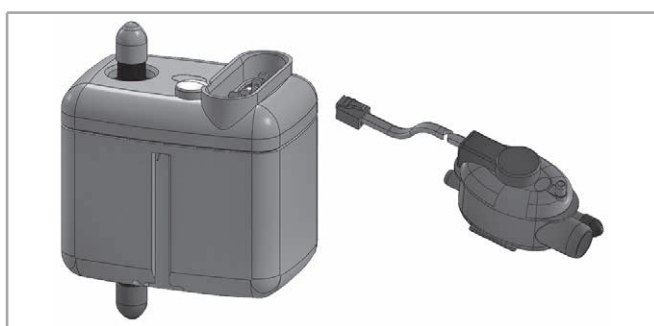
Not be used with KAF accessory.



Model	ID	Code
1 ÷ 9	BSI-C	6066039

DRPV-C condensate pump

for vertical versions **MV** / **MVB** / **IV**.

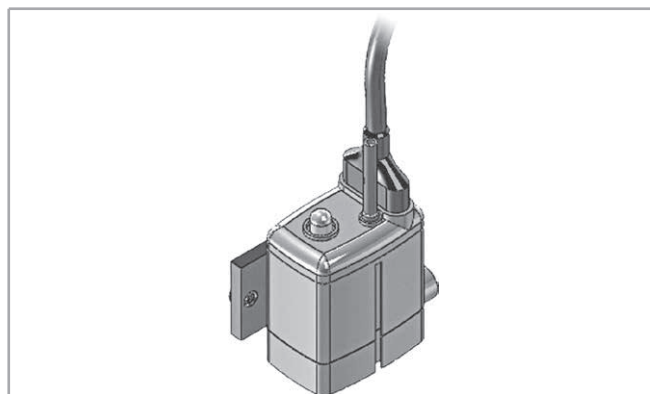


Model	FITTED		NOT FITTED	
	ID	Code	ID	Code
1 ÷ 9	DRPV-C-M	9066297	DRPV-C-S	9066296

Height for vertical flow (m)	Water flow (l/h) depending on the length of horizontal flow	
	5 m	10 m
1	7,6	7,2
2	5,6	5,2
3	4,0	3,7
4	3,2	2,9

DRPO-C condensate pump

For **MO** horizontal versions.

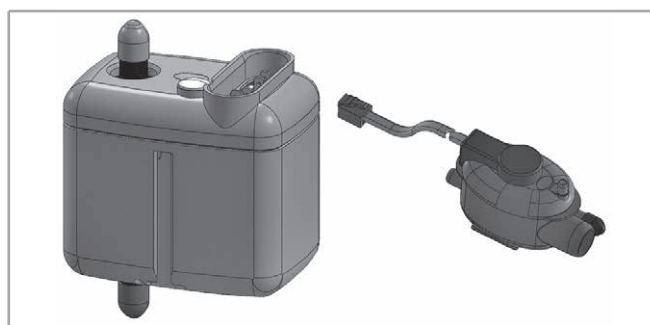


Model	FITTED		NOT FITTED	
	ID	Code	ID	Code
1 ÷ 9	DRPO-C-M	9066295	DRPO-C-S	9066294

Height for vertical flow (m)	Water flow (l/h) depending on the length of horizontal flow	
	5 m	10 m
1	7,6	7,2
2	5,6	5,2
3	4,0	3,7
4	3,2	2,9

DRPI-C condensate pump

For **IO** horizontal versions.



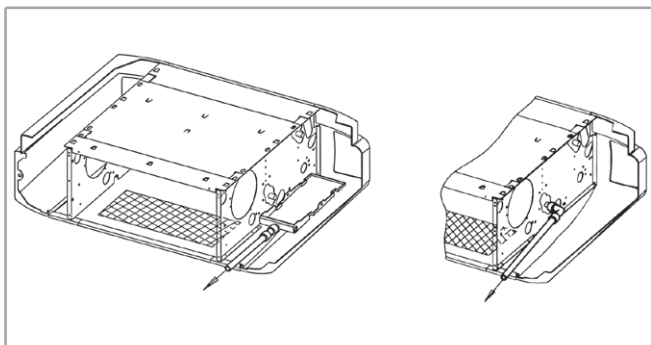
Model	FITTED		NOT FITTED	
	ID	Code	ID	Code
1 ÷ 9	DRPI-C-M	9066298	DRPI-C-S	9066180

Height for vertical flow (m)	Water flow (l/h) depending on the length of horizontal flow	
	5 m	10 m
1	7,6	7,2
2	5,6	5,2
3	4,0	3,7
4	3,2	2,9

SCR plastic condensate drain pipe with fast connection

For **MO / IO** versions.

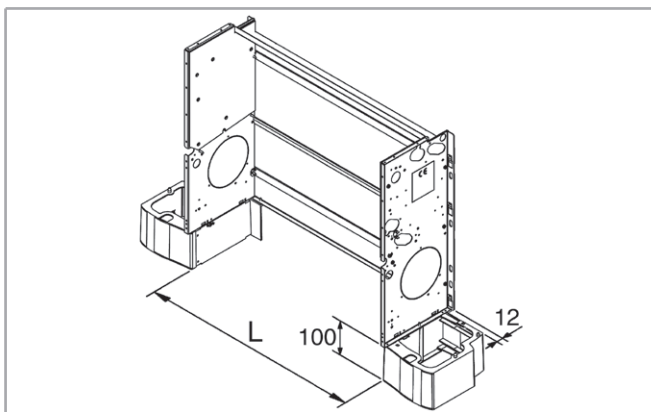
It helps regular drainage of condensate thereby preventing the formation of bends.



Model	ID	Code
1 ÷ 9	SCR-C	6060420

PAP feet

For **MV** versions.

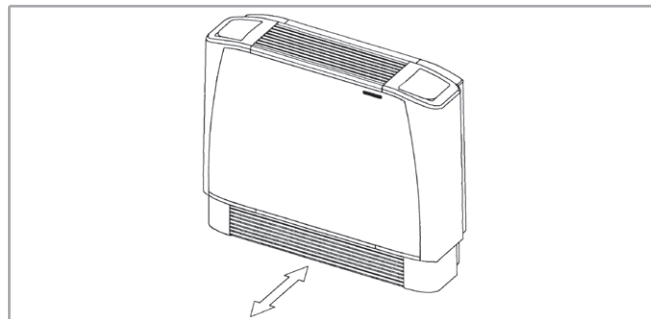


Model	ID	Code	L mm
1	PAP-C G1-7	9066351	330
2	PAP-C G1-7	9066351	430
3 - 4	PAP-C G1-7	9066351	645
5 - 6	PAP-C G1-7	9066351	860
7	PAP-C G1-7	9066351	1119
8 - 9	PAP-C G8-9	9066358	1119

GAP Aluminium low intake grid

For **MV** versions.

Removable grid of aluminium, to be installed with PAP feet.



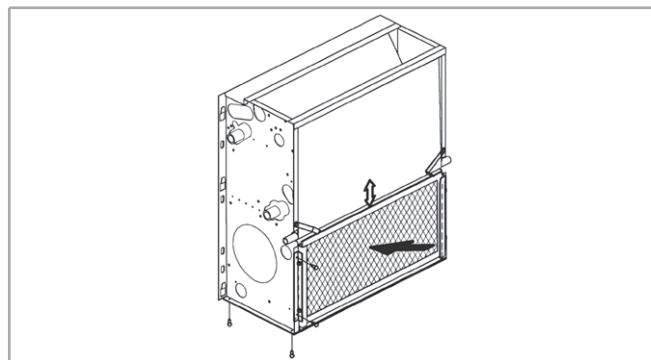
Model	ID	Code
1	GAP-C G1	9066541
2	GAP-C G2	9066542
3 - 4	GAP-C G3-4	9066543
5 - 6	GAP-C G5-6	9066545
7 ÷ 9	GAP-C G7-9	9066547

KAF frontal intake kit

For **IV-IO** versions.

Bottom closing panel and filter sliding guides.

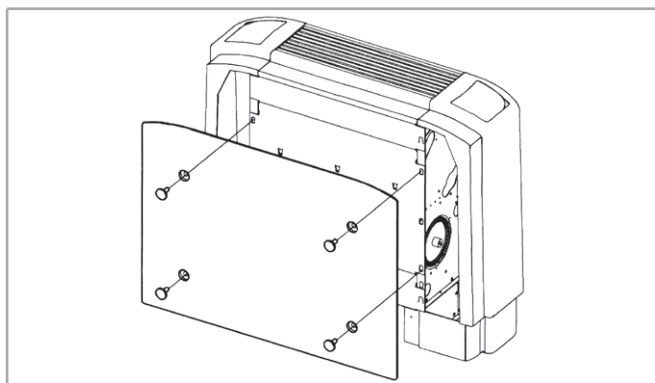
Not be used with accessory BSI-C.



Model	ID	Code
1	KAF-C G1	9066501
2	KAF-C G2	9066502
3 - 4	KAF-C G3-4	9066503
5 - 6	KAF-C G5-6	9066505
7	KAF-C G7	9066507
8 - 9	KAF-C G8-9	9066508

PCV rear closing panel

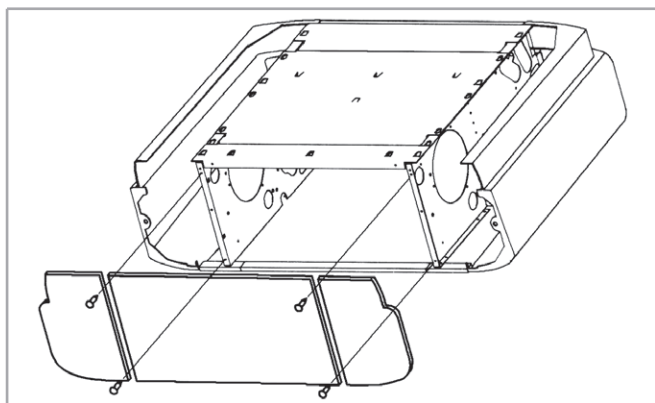
For vertical versions **MV / MVB**.



Model	ID	Code
1	PCV-C G1	9066511
2	PCV-C G2	9066512
3-4	PCV-C G3-4	9066513
5-6	PCV-C G5-6	9066515
7-9	PCV-C G7-9	9066517

PCO bottom closing panel

for **MO-MVB** horizontal versions.



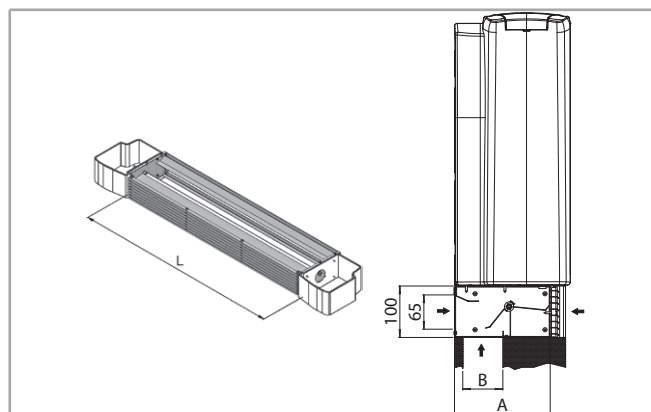
Model	ID	Code
1	PCO-C G1	9066521
2	PCO-C G2	9066522
3-4	PCO-C G3-4	9066523
5-6	PCO-C G5-6	9066525
7	PCO-C G7	9066527
8-9	PCO-C G8-9	9066528

SAEM fresh air mixing damper

For **MV** versions.

Factory mounted with feet and intake grid included

It can be motorized on request only for the CRC range.

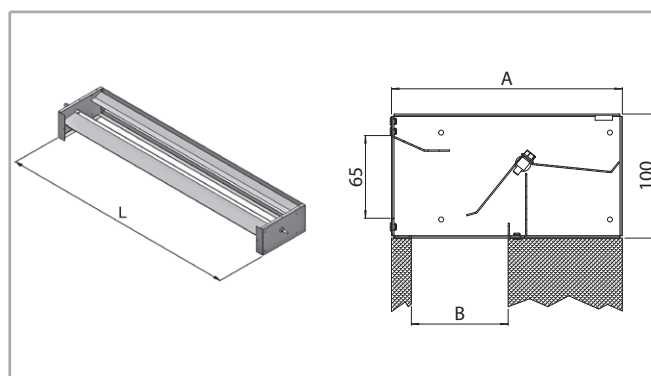


Model	ID	Code	A mm	B mm	L mm
1	SAEM-C G1	9066621	186	78	354
2	SAEM-C G2	9066622	186	78	454
3-4	SAEM-C G3-4	9066623	186	78	669
5-6	SAEM-C G5-6	9066625	186	78	884
7	SAEM-C G7	9066627	186	78	1099
8-9	SAEM-C G8-9	9066628	216	108	1099

SAE fresh air mixing damper

For versions **IV-IO**, not fitted.

It can be motorized on request only for the CRC range.



Model	ID	Code	A mm	B mm	L mm
1	SAE-C G1	9066531	186	78	354
2	SAE-C G2	9066532	186	78	454
3-4	SAE-C G3-4	9066533	186	78	669
5-6	SAE-C G5-6	9066535	186	78	884
7	SAE-C G7	9066537	186	78	1099
8-9	SAE-C G8-9	9066538	216	108	1099

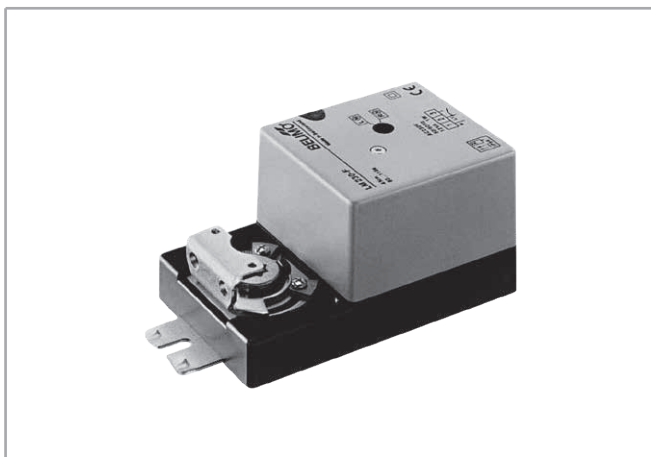
Belimo BESAE motor

Only for the **CRC** range.

For versions **MV** / **IV-IO**.

Wired and mounted for motorized closure/opening of the SAE damper.

To be used only with "IAQ" controls for Crystall filter.



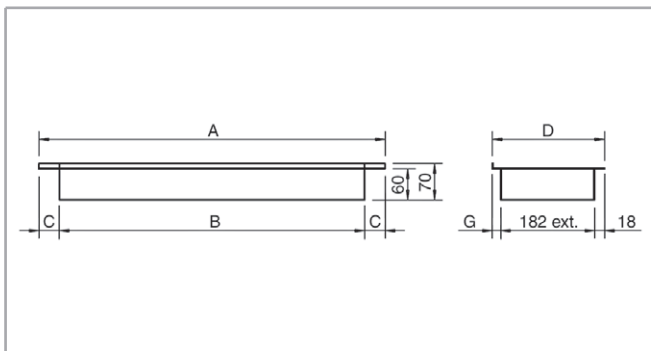
Model	ID	Code
1 ÷ 9	BESAE-C	9066620

FRD straight inlet flange

For **IV-IO** versions.

Can be used together with GRAG air inlet grid.

Made of galvanized steel.



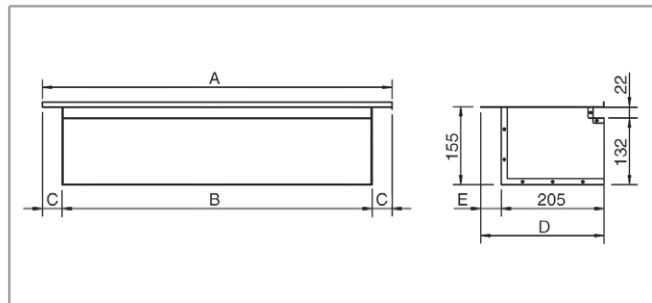
Model	ID	Code	A mm	B mm	C mm	D mm	G mm
1	FRD - 1	9066451	354	290	32	216	16
2	FRD - 2	9060720	454	390	32	216	16
3 - 4	FRD - 3/4	9060721	669	590	39,5	216	16
5 - 6	FRD - 5/6	9060722	884	790	47	216	16
7	FRD - 7	9060723	1099	990	54,5	216	16
8 - 9	FRD - 8/9	9060724	1099	990	54,5	246	46

FR 90 90° inlet flange

For **IV-IO** versions.

Can be used together with GRAP air inlet grid.

Made of galvanized steel.



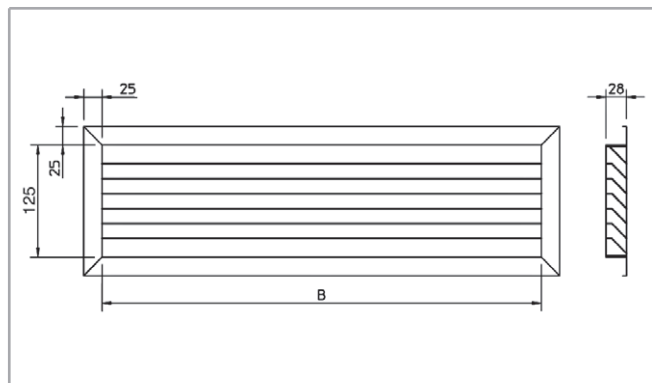
Model	ID	Code	A mm	B mm	C mm	D mm	E mm
1	FR90 - 1	9066441	354	290	32	216	11
2	FR90 - 2	9060710	454	390	32	216	11
3 - 4	FR90 - 3/4	9060711	669	590	39,5	216	11
5 - 6	FR90 - 5/6	9060712	884	790	47	216	11
7	FR90 - 7	9060713	1099	990	54,5	216	11
8 - 9	FR90 - 8/9	9060714	1099	990	54,5	246	41

GRAP air inlet grid

For **IV-IO** versions.

To be fitted to the FR 90 90° inlet flange.

Made of anodized aluminium.



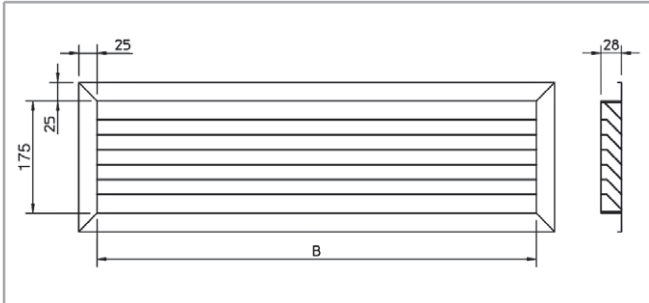
Model	ID	Code	Description	B mm
1	GRAP - 1	9066421	Grid 300 x 150	275
2	GRAP - 2	9060760	Grid 400 x 150	375
3 - 4	GRAP - 3/4	9060761	Grid 600 x 150	575
5 - 6	GRAP - 5/6	9060762	Grid 800 x 150	775
7 ÷ 9	GRAP - 7/9	9060763	Grid 1000 x 150	975

GRAG air inlet grid

For **IV-IO** versions.

To be fitted to the FRD straight inlet flange.

Made of anodized aluminium.

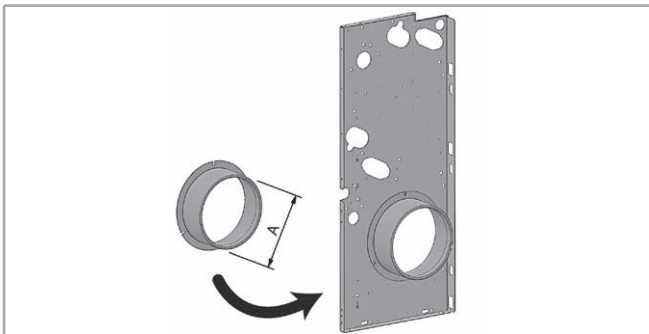


Model	ID	Code	Description	B mm
1	GRAG - 1	9066431	Grid 300 x 200	275
2	GRAG - 2	9060764	Grid 400 x 200	375
3 - 4	GRAG - 3/4	9060765	Grid 600 x 200	575
5 - 6	GRAG - 5/6	9060766	Grid 800 x 200	775
7 ÷ 9	GRAG - 7/9	9060767	Grid 1000 x 200	975

FRC fresh air connection

For **IV-IO** versions.

Not fitted.

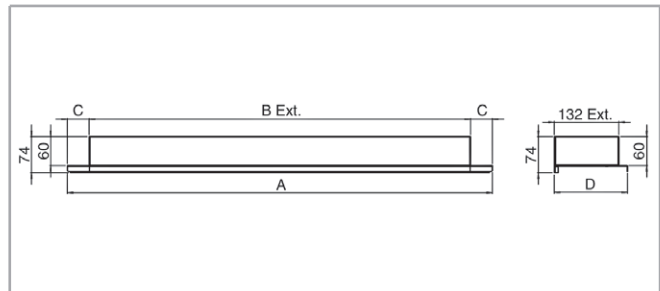


Model	ID	Code	A mm
1 ÷ 7	FRC 100	6064191	98
1 ÷ 7	FRC 120	6064192	122

FMD straight outlet flange

For **IV-IO** versions.

Made of galvanized steel.

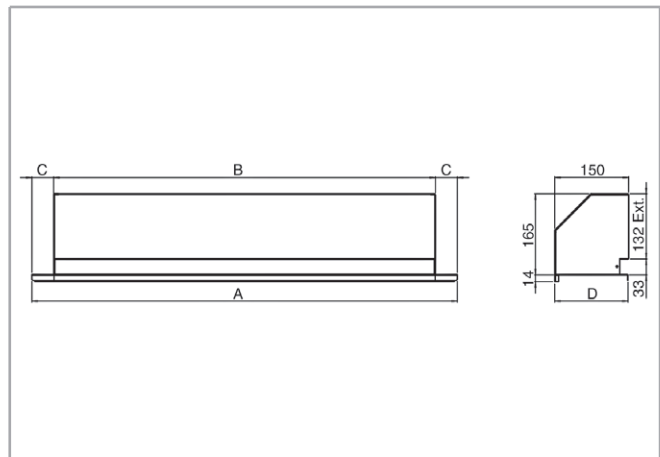


Model	ID	Code	A mm	B mm	C mm	D mm
1	FMD - 1	9066371	352	290	31	152
2	FMD - 2	9066372	452	390	31	152
3 - 4	FMD - 3/4	9066373	667	590	38,5	152
5 - 6	FMD - 5/6	9066375	882	790	46	152
7	FMD - 7	9066377	1097	990	53,5	152
8 - 9	FMD - 8/9	9066378	1097	990	53,5	179

FM 90 90° outlet flange

For **IV-IO** versions.

Made of galvanized steel insulated with polyethylene lining.



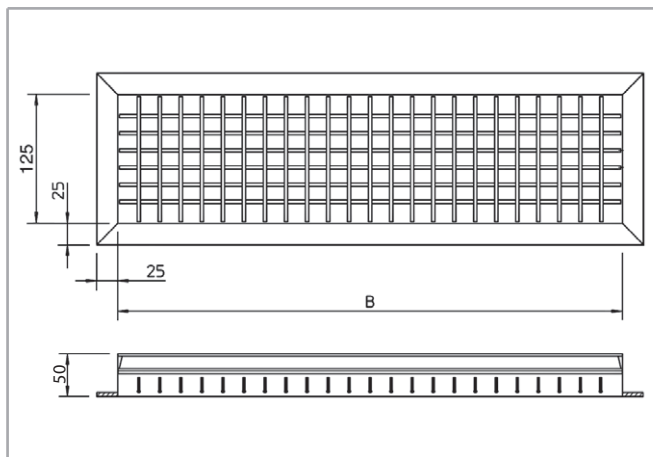
Model	ID	Code	A mm	B mm	C mm	D mm
1	FM90 - 1	9066381	352	290	31	152
2	FM90 - 2	9066382	452	390	31	152
3 - 4	FM90 - 3/4	9066383	667	590	38,5	152
5 - 6	FM90 - 5/6	9066385	882	790	46	152
7	FM90 - 7	9066387	1097	990	53,5	152
8 - 9	FM90 - 8/9	9066388	1097	990	53,5	179

BMA air outlet grid

For **IV-IO** versions.

Double louvre grid to be fitted to the duct, to the FMD straight outlet flange or to the FM 90 90° outlet flange.

Made of anodized aluminium.



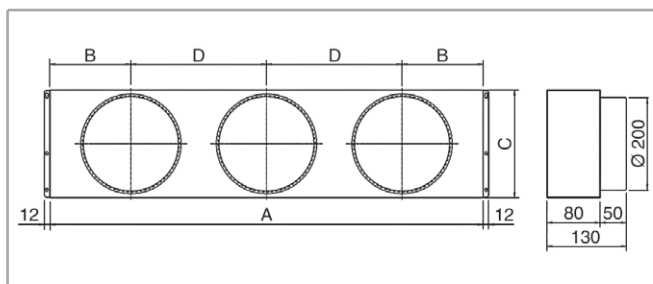
Model	ID	Code	B mm
1	BMA - 1	9066411	275
2	BMA - 2	9060750	375
3 - 4	BMA - 3/4	9060751	575
5 - 6	BMA - 5/6	9060752	775
7 ÷ 9	BMA - 7/9	9060753	975

PRC air inlet spigot plenum

For **IV-IO** versions.

Made of galvanized steel insulated with polyethylene lining.

All the plenums are supplied with spigots for the connection of flexible ducts.



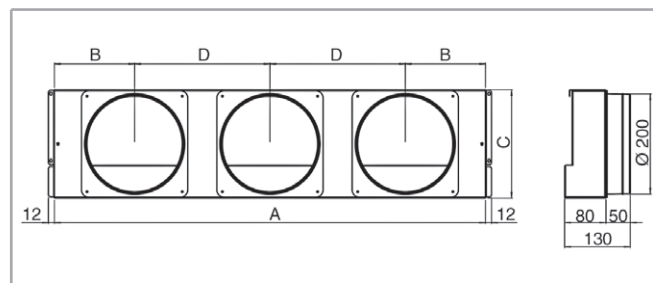
Model	ID	Code	A mm	B mm	C mm	D mm	Spigots
1	PRC - 1	9066461	330	165	218	/	N° 1
2	PRC - 2	9066462	430	107	218	216	N° 2
3 - 4	PRC - 3/4	9066463	645	166	218	313	N° 2
5 - 6	PRC - 5/6	9066465	860	160	218	270	N° 3
7	PRC - 7	9066467	1075	190	218	347,5	N° 3
8 - 9	PRC - 8/9	9066468	1075	190	248	347,5	N° 3

PMC spigot diffuser

For **IV-IO** versions.

Made of galvanized steel insulated with polyethylene lining.

All the plenums are supplied with spigots for the connection of flexible ducts.



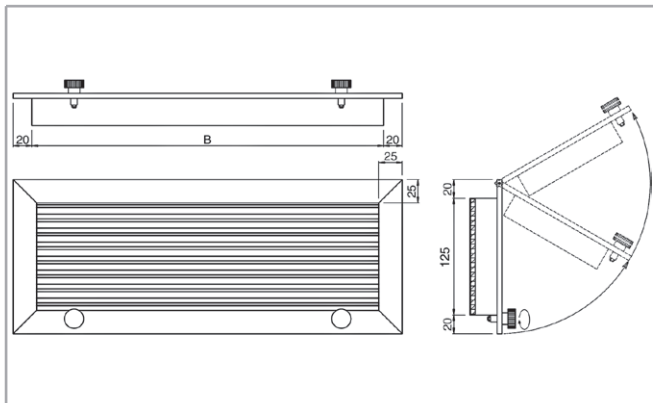
Model	ID	Code	A mm	B mm	C mm	D mm	Spigots
1	PMC - 1	9066361	330	165	218	/	N° 1
2	PMC - 2	9066362	430	107	218	216	N° 2
3 - 4	PMC - 3/4	9066363	645	166	218	313	N° 2
5 - 6	PMC - 5/6	9066365	860	160	218	270	N° 3
7	PMC - 7	9066367	1075	190	218	347,5	N° 3
8 - 9	PMC - 8/9	9066368	1075	190	248	347,5	N° 3

GRAFP air inlet grid with filter

For **IV-IO** versions.

To be fitted to the FR 90 90° inlet flange.

Made of anodized aluminium.



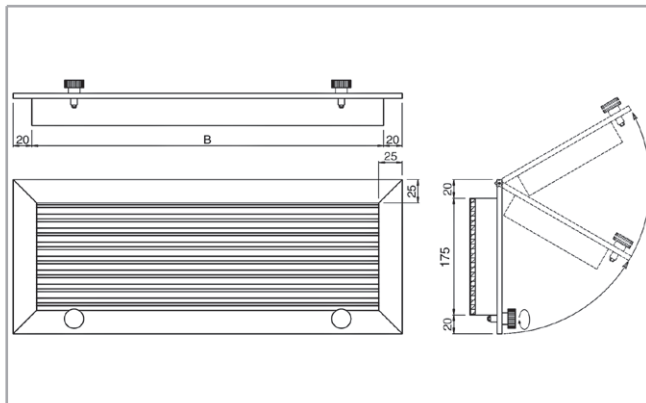
Model	ID	Code	B mm
1	GRAFP - 1	9066391	275
2	GRAFP - 2	9060770	375
3 - 4	GRAFP - 3/4	9060771	575
5 - 6	GRAFP - 5/6	9060772	775
7 ÷ 9	GRAFP - 7/9	9060773	975

GRAFG air inlet grid with filter

For **IV-IO** versions.

To be fitted to the FRD straight inlet flange.

Made of anodized aluminium.



Model	ID	Code	B mm
1	GRAFG - 1	9066401	275
2	GRAFG - 2	9060774	375
3 - 4	GRAFG - 3/4	9060775	575
5 - 6	GRAFG - 5/6	9060776	775
7 ÷ 9	GRAFG - 7/9	9060777	975

CHK Hotel fan kit

Hotel box for concealed installation for **Carisma CRC** and **CRC-ECM, IO** horizontal installation (frontal return and supply).

The new CHK kit is the best solution for all installations requiring a built-in fan coil where there is no other possibility of accessing the unit except from the air outlet side.

The unit is particularly suitable for installation in hotel rooms, offices and homes.

The Kit consists of a box that can easily be installed in a false ceiling, inside which the fan coil is fitted using the special guides.

For any kind of ordinary or extraordinary maintenance operation (once the wall and the ceiling construction is completed) simply remove the front outlet and have access the air filter as well as the electrical and hydraulic parts of the unit.

The air grid is divided into two zones, one for the air intake with horizontally adjustable fins and the other one for the air outlet with horizontally and vertically adjustable fins to ensure better air distribution and diffusion in the room.

The box structure is made of thick galvanised metal sheet. The internal hot or cold air flow sections are insulated with expanded polyethylene that prevents both condensation and energy loss towards the inside of the false ceiling.

The accessory includes the air filter, an anodised aluminium outlet with adjustable fins and a front wall frame.

The box structure is designed so that fan coils with hydraulic connections facing left or right can be installed. According to the configuration, it is in fact sufficient to secure the sliding guides on the panel that will be the upper one.

Only the following accessories can be used with the CHK Kit :

- VS simplified kit for 3 way valve for main and additional coil
- BSI-C extension condensate collection tray

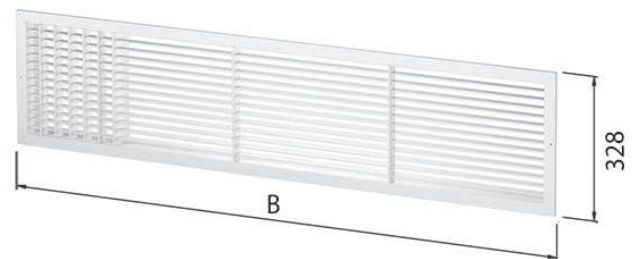
For the CHK Kit installation it is mandatory to use the Kit for hydraulic and electrical connections on the same side (Code 9066805).

When ordering, it must be specified that the fan coil hydraulic and electrical connections must be on the same side.

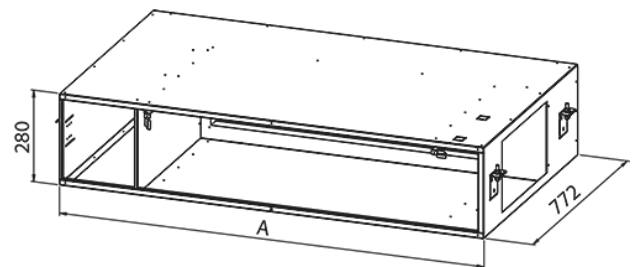
Note: with the CHK Kit consider 20 Pa pressure drop.



GRID



RECESSED PLENUM



Model	ID	Code	A mm	B mm
2	CHK 2	9066782	845	880
3-4	CHK 3-4	9066783	1060	1095
5-6	CHK 5-6	9066785	1318	1357
7	CHK 7	9066787	1610	1649

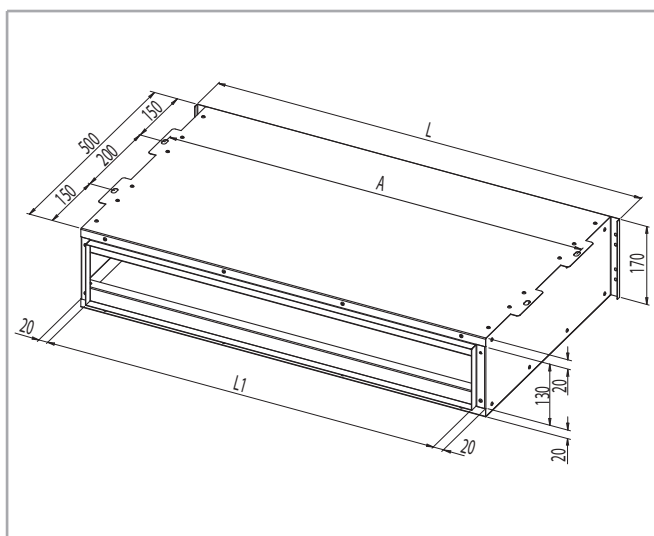
BXS air outlet silencer plenum

For **IV-IO** versions.

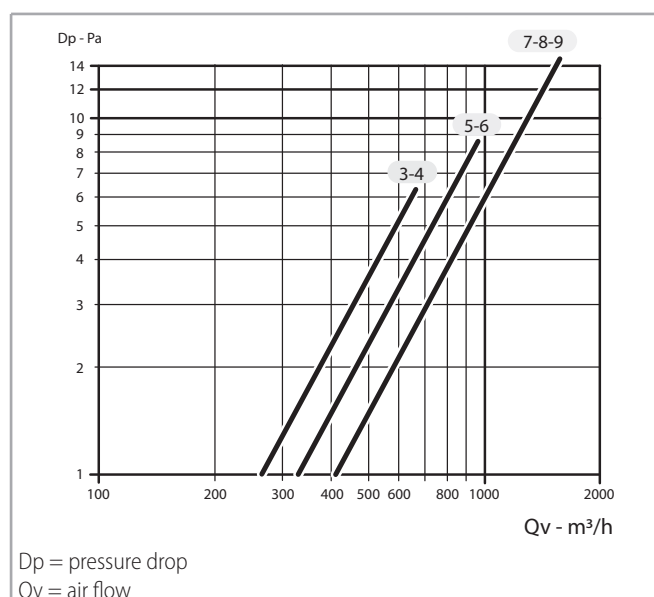
Sound attenuator module made of galvanised steel metal sheet, lined internally with a reinforced glass wool mat on both sides with a black glass coating; the 50 mm and 30 kg/m³ density lining ensures high noise reduction with very low pressure drops.

Frequency	Hz	125	250	500	1000	2000	4000	8000
Sound attenuation	dB	2,5	5,0	11,5	14,0	13,5	12,0	11,0

NOTE: the silencer plenum reduces the sound levels only on the supply side; the sound levels on the return side are not affected by the silencer.



Model	ID	Code	A mm	L mm	L1 mm
3 - 4	BXS-A	9069081	653	675	597
5 - 6	BXS-B	9069082	868	890	812
7 - 8 - 9	BXS-C	9069083	1083	1105	1027



CRYSTALL



Introduction

The Carisma Sabiana Fan Coils range equipped with the **Crystall** plate type electrostatic filter is the result of an extremely innovative project combining air treatment and purifying in a single product.

The fan coil unit is enriched with an electrostatic filter that is patented and certified (EN ISO 16890:2016), mounted on site, whose concept is total new and able to answer to the increasing need of better air handling and wellness within the working and residential ambients. 80% of the human life is spent within the closed environments. The ("**IAQ**") Indoor Air Quality is the human-kind's continuous challenge of improving the own wellness during the next years and Sabiana joins it with the steady product innovation.



Technical specifications

The active electrostatic filter allows a consistent reduction of the fine particles existing in the environment thanks to the high efficiency filtration, performance certified in accordance to the Standard in force EN ISO 16890:2016.

It is also recalled that the WHO (World Health Organization) classified the PM (Particulate Matter) as certainly carcinogenic of group 1 as well as a vector of biological substances pathogenic to humans.

The particulate matters can be both solid and liquid : above all the liquid aerosols (droplets), like the ones produced during breathing and during other anthropomorphic activities, are the main vector of pathogenic Viruses and Bacteria and in some cases lethal to humans. It is now recognised by the world scientific community that all biological contaminants such as viruses and bacteria are mainly spread by the aerosol produced in the environment by infected people through breathing, coughing, sneezing or even simply speaking, with greater risk of spread indoors where we normally spend more than 80% of our time.

The most recent recommendations from WHO (Roadmap to improve and ensure good indoor ventilation in the context of COVID-19, March 1st, 2021) and the Prime Ministerial Decrees issued by the Italian Government (Guide Lines on Re-Opening Manufacturing) require, where possible, increasing the filtering efficiency of the equipment that handles indoor air and especially on air conditioning units in order to remove the smallest potentially infected particles from the air (containing pathogenic agents).

It is therefore suitable for different types of buildings, for example schools, hospitals and care homes, (hallways, waiting rooms, hospital ward rooms), doctor's offices, hotels and everywhere it is necessary to improve the quality of the indoor air.

Tests and Certifications

The Crystall solution has gone through numerous tests and efficiency and efficacy testing to assess its function and performance level in real conditions of use.

At various accredited agencies, efficiency and pressure drop tests were conducted, according to product standards EN ISO 16890:2016 and that are able to classify performance.

Sabiana's Crystall active electrostatic filter is able to guarantee a Most Penetrating Particle Size filtering efficiency level (MPPS - i.e. with an aeraulic diameter between 0.2 and 0.4 μm) equal to semi-absolute filter E11 (MPPS $\geq$ 95% - E11 @ EN 1822-1).

Also, the University of Ancona (the online scientific publication "Bacteria Removal and Viability Attenuation by Means of an Electrostatic Barrier" can be consulted by purchasing the Indoor and Built Environment magazine from the web-site) conducted more than 180 laboratory tests on microbiological substances (total airborne microbiological load), which include bacteria, mould, fungi, etc. and that confirmed, through the statistical processing of the data carried out with the specific Fischer test, the efficacy of the Crystall active electrostatic filter in reducing the bacterial load.

Benefits

- No impact over the thermal and aeraulic balance system
- Negligible pressure drop (also with dirty filter)
- Demonstrated bactericidal action (sustainable IAQ)
- Easy and chip maintenance
- Very low power consumption
- Efficiency performances certified according to the Product Standard EN ISO 16890:2016
- In accordance with the Standards in force for electromagnetic compatibility and safety (by accredited institutions)
- Solution technologically sustainable and patented

Main components of the Crystall filtering assembly

The first element is the Crystall active electrostatic assembly with aluminium modular cells which is composed of two separate and distinct sections, one of which is active (polarisation section) attached to the load-bearing structure and the other is passive, with induced anode (collection or header section) that can be removed for maintenance.

The first section composed of electrodes and insulating parts does not require maintenance, while the second section, intended for the collection of organic and inorganic particulate, requires periodic cleaning.

Its extremely contained depth (just 50 mm) combined with its great dimensional flexibility, makes it suitable for satisfying the most diverse construction requirements, that have the aim of obtaining a high filtering level of the recirculation/secondary air (according to the definition provided by standard EN 16798.3).

The second component is the wired control and power box, available "fitted on the unit" or at a distance, that allows the management and the inspection of the Crystall filtering assembly operating status.

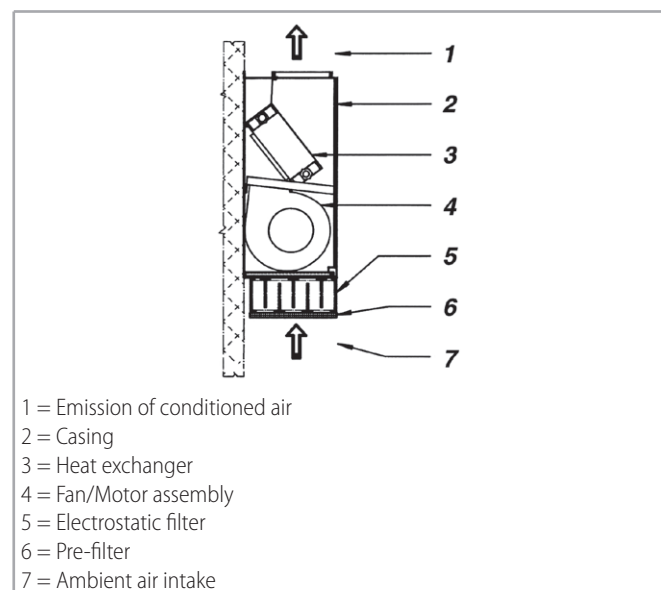
Operating principle of the CRYSTALL electrostatic filter

The air is aspirated and first passes a mechanical prefilter, which stops away particles of more than 50 μm (dust, insects, etc.).

Then the smallest particles ($50 \div 0.01 \mu\text{m}$) 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 to the collection surfaces by a strong, induced magnetic field (Phase 2).

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

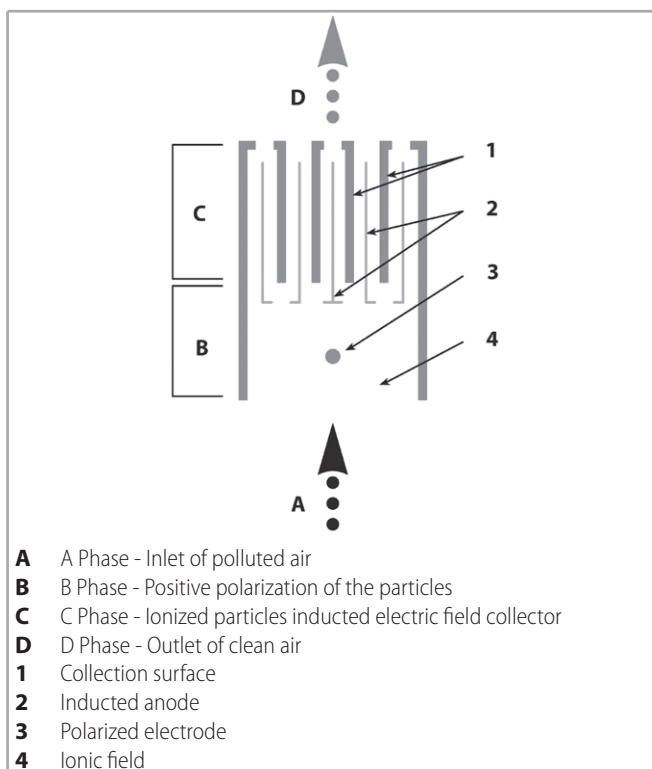


Active plate electrostatic filter of Femec type

The Crystall active electrostatic filter is based on the principle of separation of the particles contained in the air through electrical polarisation and their subsequent treatment on counterposed metal surfaces, with opposite polarity.

It is built with thin metal blades tapered together, forming numerous and intense electrical fields. The polluting particles that transit there, charged by a special electrode, are attracted and captured, as though by small magnets, on the counterposed surfaces of the blades. The power required for this process is low, approximately 4/7 W for every 1000 m^3/h of handled air.

Sabiana's patented Crystall solution makes it possible to achieve electrical fields on opposing surfaces without the need for additional electrical power supply, making every zone of the header (collection section) independent, there-by preventing the accidental short circuit of one section from compromising the operation of the entire filter.



Wired control and power box

The main element is the high voltage electronic power board required to feed the Crystall active electrostatic filter, an on/off disconnecting switch and a LED light to locally monitor the correct operating status.

The correct operation is possible at a distance also with a SPDT relay contact. The power supply is 230 Vca 50/60 Hz.

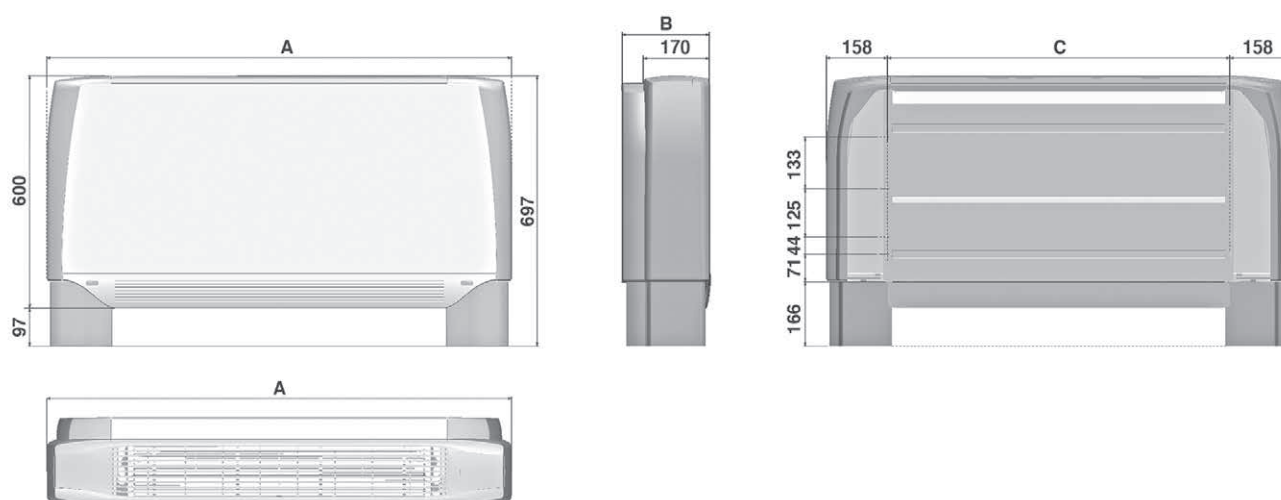
	Flow rate (m ³ /h)	Api Filter Electrostatic (**) (Pa)	Efficiency class (*)
CRC Size 1	215	3	ePM ₁ 95% - ePM _{2,5} 95% - ePM ₁₀ 95% - MPPS 96% (E11 @ UNI EN 1822-1)
	280	4	ePM ₁ 90% - ePM _{2,5} 90% - ePM ₁₀ 90% - MPPS 85% (E10 @ EN 1822-1)
CRC Size 2 CRC-ECM Size 2	285	3	ePM ₁ 95% - ePM _{2,5} 95% - ePM ₁₀ 95% - MPPS 96% (E11 @ UNI EN 1822-1)
	370	4	ePM ₁ 90% - ePM _{2,5} 90% - ePM ₁₀ 90% - MPPS 85% (E10 @ EN 1822-1)
CRC Size 3-4 CRC-ECM Size 4	435	3	ePM ₁ 95% - ePM _{2,5} 95% - ePM ₁₀ 95% - MPPS 96% (E11 @ UNI EN 1822-1)
	565	4	ePM ₁ 90% - ePM _{2,5} 90% - ePM ₁₀ 90% - MPPS 85% (E10 @ EN 1822-1)
CRC Size 5-6 CRC-ECM Size 6	580	3	ePM ₁ 95% - ePM _{2,5} 95% - ePM ₁₀ 95% - MPPS 96% (E11 @ UNI EN 1822-1)
	760	4	ePM ₁ 90% - ePM _{2,5} 90% - ePM ₁₀ 90% - MPPS 85% (E10 @ EN 1822-1)
CRC Size 7 CRC-ECM Size 7	730	3	ePM ₁ 95% - ePM _{2,5} 95% - ePM ₁₀ 95% - MPPS 96% (E11 @ UNI EN 1822-1)
	955	4	ePM ₁ 90% - ePM _{2,5} 90% - ePM ₁₀ 90% - MPPS 85% (E10 @ EN 1822-1)
CRC Size 8-9 CRC-ECM Size 9	820	3	ePM ₁ 95% - ePM _{2,5} 95% - ePM ₁₀ 95% - MPPS 96% (E11 @ UNI EN 1822-1)
	1075	4	ePM ₁ 90% - ePM _{2,5} 90% - ePM ₁₀ 90% - MPPS 85% (E10 @ EN 1822-1)
	1420	6	ePM ₁ 80% - ePM _{2,5} 85% - ePM ₁₀ 85% - MPPS 69%
	1610	7	ePM ₁ 80% - ePM _{2,5} 80% - ePM ₁₀ 85% - MPPS 63%

(*) Performant test according to EN ISO 16890:2016

(**) Pressure drop evaluated on the basis of the efficiency performant test according to EN ISO 16890:2016

Dimension and weight MV version

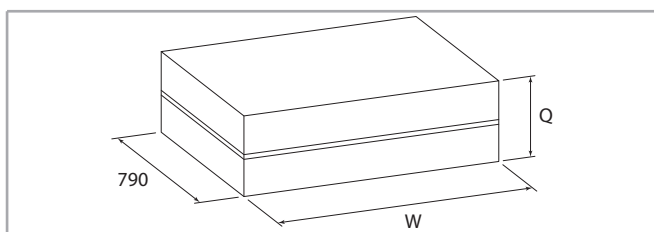
MV - Only vertical wall installation



Dimensions (mm) - MV version

Model	1	2	3	4	5	6	7	8	9
A (mm)	670	770	985	985	1200	1200	1415	1415	1415
B (mm)	225	225	225	225	225	225	225	255	255
C (mm)	354	454	669	669	884	884	1099	1099	1099

Packed unit Crystall MV version



Model		1	2	3	4	5	6	7	8	9
Q	mm	280	280	280	280	280	280	280	310	310
W	mm	690	790	1005	1005	1220	1220	1435	1435	1435

Weight MV version

Weights with packaging (kg)

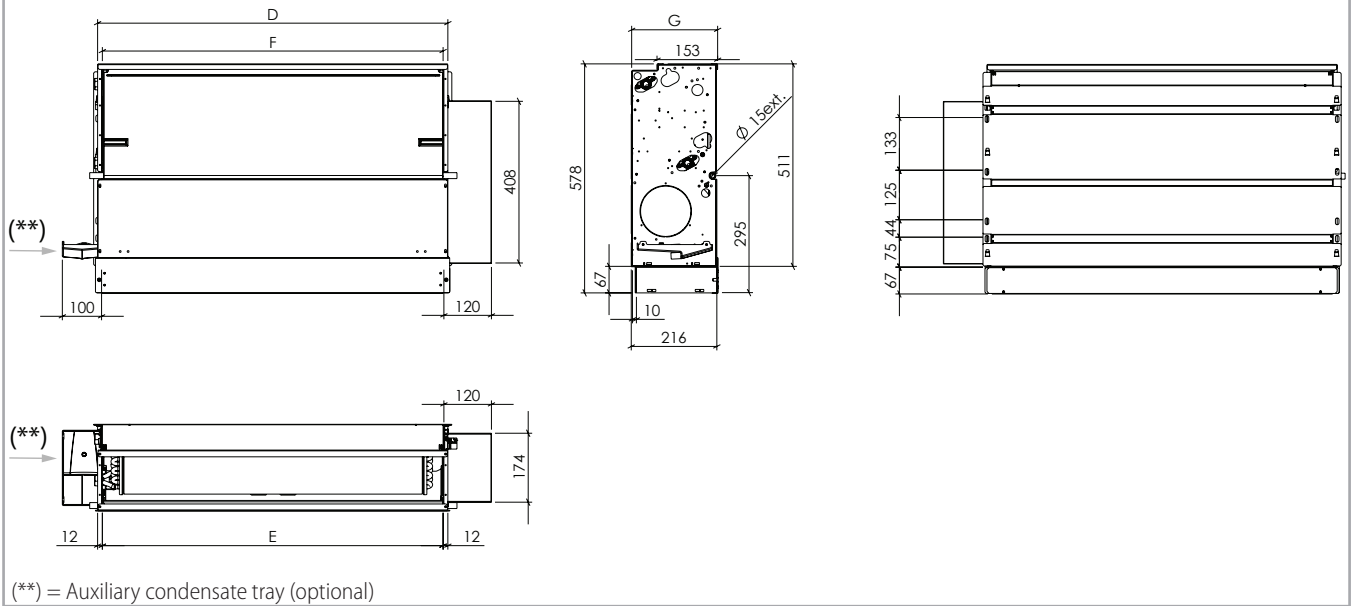
Model	1	2	3	4	5	6	7	8	9
3 rows	19	21	27	28	33	34	39	43	44
3+1 rows	20	24	33	34	39	40	46	51	52
3+2 rows	20	27	39	40	45	46	53	59	60
4 rows	19	23	30	31	36	37	43	49	50
4+1 rows	20	26	35	36	41	42	49	56	58

Weights without packaging (kg)

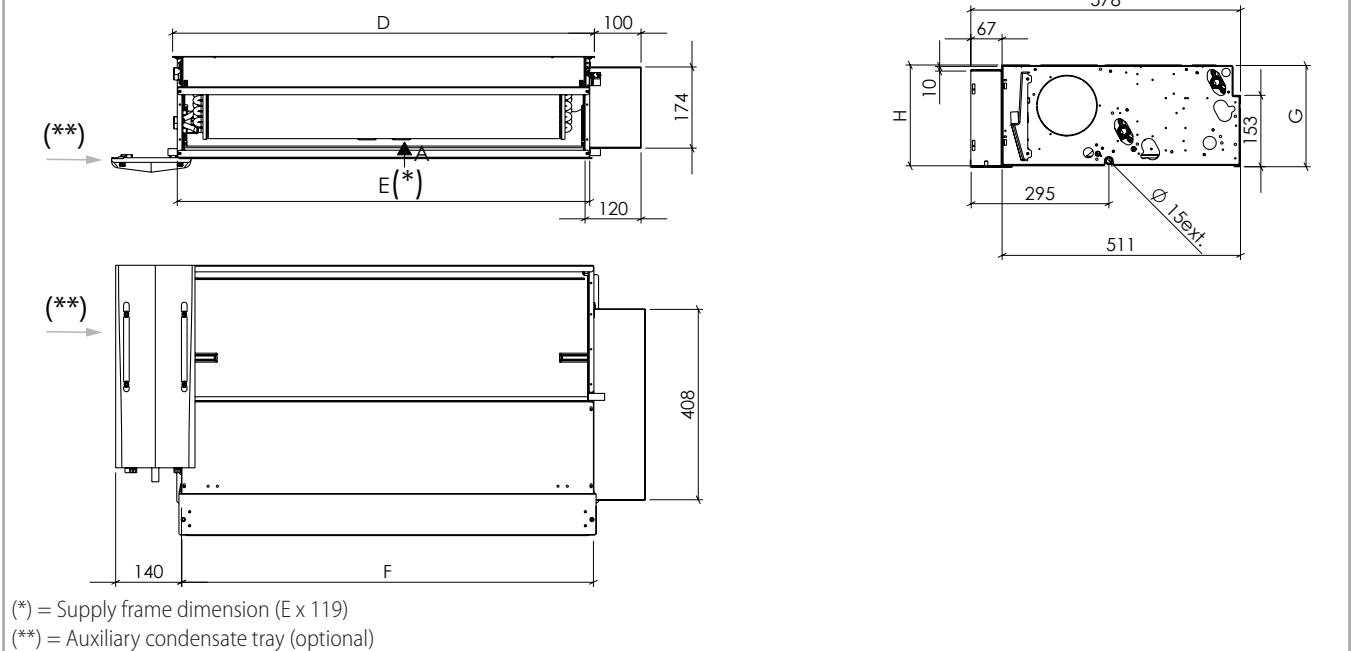
Model	1	2	3	4	5	6	7	8	9
3 rows	17	19	24	25	30	31	35	38	39
3+1 rows	18	22	30	31	36	37	42	46	47
3+2 rows	18	25	36	37	42	43	49	54	55
4 rows	17	21	27	28	33	34	39	44	45
4+1 rows	18	24	32	33	38	39	45	51	53

Dimension and weight IV-IO version

IV - Vertical installation



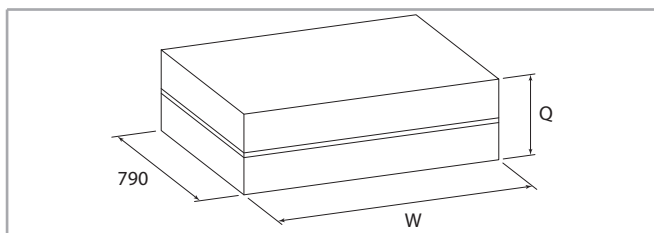
IO - Horizontal installation



Dimensions (mm) - IV-IO version

Model	1	2	3	4	5	6	7	8	9
D (mm)	374	474	689	689	904	904	1119	1119	1119
E (mm)	330	430	645	645	860	860	1075	1075	1075
F (mm)	354	454	669	669	884	884	1099	1099	1099
G (mm)	218	218	218	218	218	218	218	248	248
H (mm)	205	205	205	205	205	205	205	235	235

Packed unit Crystall IV-IO version



Model		1	2	3	4	5	6	7	8	9
Q	mm	280	280	280	280	280	280	280	310	310
W	mm	690	790	1005	1005	1220	1220	1435	1435	1435

Weight IV-IO version

Weights with packaging (kg)

Model	1	2	3	4	5	6	7	8	9
3 rows	15	20	27	28	33	34	38	41	41
3+1 rows	16	23	32	33	38	39	44	48	49
3+2 rows	17	26	37	38	43	44	50	55	57
4 rows	16	22	29	30	35	36	41	46	47
4+1 rows	17	25	34	35	40	41	47	53	55

Weights without packaging (kg)

Model	1	2	3	4	5	6	7	8	9
3 rows	13	18	24	25	30	31	34	36	36
3+1 rows	14	21	29	30	35	36	40	43	44
3+2 rows	15	24	34	35	40	41	46	50	52
4 rows	14	20	26	27	32	33	37	41	42
4+1 rows	15	23	31	32	37	38	43	48	50

Il presente documento annulla e sostituisce il certificato di pari numero emesso in data 06/05/2022.



IONet, the association of the world's first class certification bodies, is the largest provider of management system certification in the world. IONet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO N. **0545/8**
CERTIFICATE No.

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 e Unità Operativa

Via Piave, 53 - 20011 Corbetta (MI) - Italia

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

Unità Operative

Via Virgilio, 2 - 20013 Magenta (MI) - Italia

Produzione di ventilconvettori. Magazzino Logistica.

(Presente solo reparto produttivo, magazzino componenti e logistica: Magazzino P.F. e spedizione).

Via Zanella, 27 - 20011 Corbetta (MI) - Italia

Assemblaggio unità trattamento aria, lavorazioni meccaniche, saldatura, magazzino, assemblaggio recuperatori.

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) e canne fumarie.

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

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Cert. n. 0545



Cert. n. 050153

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