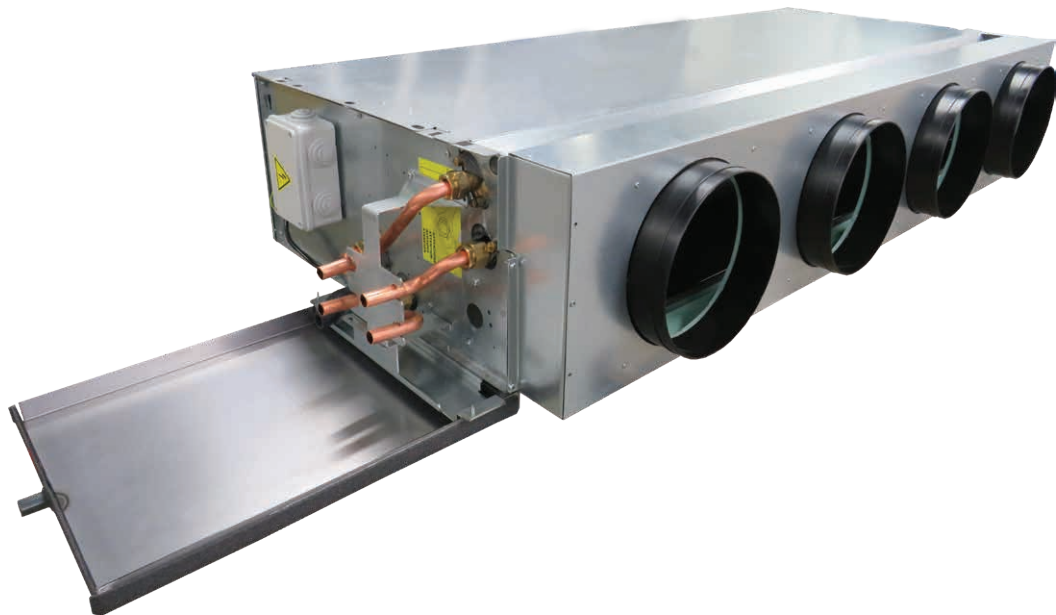
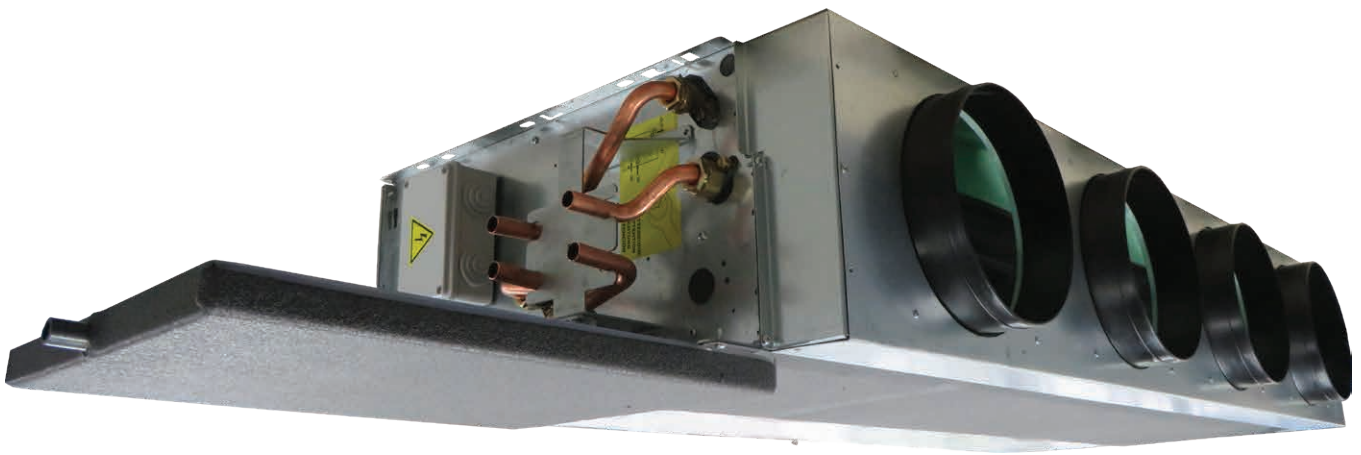


# The Ultra Quiet High Pressure Fan Coil



## Fan Coil Units Carisma CRSL-ECM UK

TECHNICAL MANUAL



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### Introduction

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### CRSL-ECM

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## INTRODUCTION

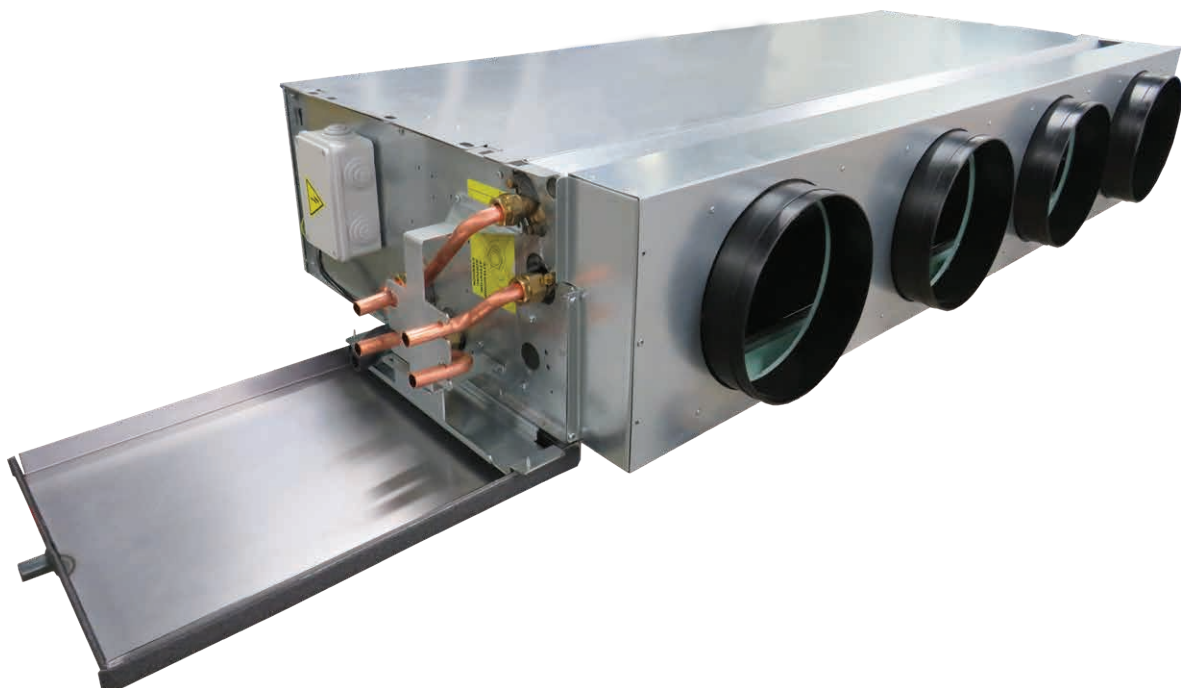
In line with innovative trends and modern industrial design, the CRSL-ECM UK fan coil range meets today's demanding requirements of performance, size, acoustics, low energy, ease of installation and maintenance.

The fan coil unit has been designed around a platform of models, versions and accessories.

All fan coil models are equipped with fan assemblies with particularly reduced electrical consumption thanks to the electrical motor with inverter board.

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

The model is complemented with a full range of accessories: various types of adjustment valves, additional electric heater, auxiliary condensate pump, air inlet/outlet diffusers for fitted installations.



## MAIN COMPONENTS

It is the most comprehensive range, perfect to meet all air-conditioning requirements of work environments like offices, shops, restaurants and hotel rooms featuring ducted installations with available pressure up to 80 Pa.

### 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

Three phase permanent magnet brushless electronic motor that is controlled with reconstructed current according to a BLAC sinusoidal wave.

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

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

### Coil

It is manufactured from drawn copper tube and the aluminium fins are mechanically bonded onto the tube by an expansion process. The coil has two Ø 15 mm internal connections.

The connections are equipped with Ø 1/8" 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 connections are on the left side looking from the air outlet of the unit (see picture).

On request we can deliver the unit with the connections on the right end side. This operation can also be easily carried out on site during installation.

### Condensate collection tray

Made of plastic (ABS UL94 HB) for sizes 1÷3 and painted steel for sizes 4÷8 with a L-shaped fitted on the inner casing; the tray is insulated with 3 mm polyolefin (PO) foam B-s2-d0 EN 13501-1. The outside diameter of the condensate discharge pipe is 15 mm.

### Filter

Polypropylene cellular fabric regenerating filter.

The filter frame of galvanized steel is inserted into special plastic sliding guides fastened to the structure for easy insertion and removal of the filter.

## MAIN PERFORMANCES AND TECHNICAL CHARACTERISTICS

### 3 row coil units - 2 pipe systems

The following standard rating conditions are used:

#### COOLING

Entering air temperature: +23 °C d.b., 50% r.h.  
Water temperature: +6 °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.

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	CRSL-ECM UK 13									CRSL-ECM UK 23								
	3	4	5	6	7	8	9	10	3	4	5	6	7	7,5	8	9	10	
Inverter power																		
Air flow	m <sup>3</sup> /h	101	274	387	474	550	591	596	596	277	474	620	741	859	913	965	1066	1129
Cooling total emission	kW	0,57	1,27	1,66	1,93	2,15	2,27	2,28	2,28	1,37	2,10	2,56	2,94	3,27	3,41	3,56	3,80	3,96
Cooling sensible emission	kW	0,43	0,99	1,31	1,54	1,74	1,84	1,85	1,85	1,07	1,66	2,05	2,38	2,65	2,76	2,88	3,11	3,24
Heating emission	kW	0,75	1,85	2,47	2,90	3,28	3,48	3,50	3,49	2,02	3,20	3,98	4,59	5,13	5,34	5,61	6,02	6,26
Fan	W	12	18	27	36	47	54	55	55	20	30	40	53	69	77	86	118	125
Sound power outlet (Lw)	dB(A)	34	38	34	45	48	49	49	50	35	39	44	47	50	51	52	54	55
Sound power inlet + radiated (Lw)	dB(A)	41	45	41	52	55	56	56	57	42	46	51	54	57	58	59	61	62

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

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	CRSL-ECM UK 43									CRSL-ECM UK 53									
	3	4	5	6	7	7,5	8	9	10	3	4	5	6	7	7,5	8	9	10	
Inverter power																			
Air flow	m <sup>3</sup> /h	434	612	769	908	1037	1099	1159	1264	1324	482	659	901	1070	1225	1305	1384	1534	1596
Cooling total emission	kW	2,14	2,79	3,31	3,76	4,15	4,33	4,49	4,78	4,94	1,97	2,76	3,75	4,38	4,91	5,19	5,45	5,89	6,08
Cooling sensible emission	kW	1,67	2,20	2,65	3,05	3,36	3,50	3,68	3,92	4,05	1,50	2,26	3,05	3,57	4,05	4,27	4,49	4,90	5,07
Heating emission	kW	3,18	4,26	5,16	5,91	6,57	6,88	7,16	7,65	7,91	3,51	4,62	6,04	6,98	7,81	8,32	8,57	9,30	9,60
Fan	W	22	33	46	60	78	89	100	123	135	25	31	48	66	92	98	111	148	160
Sound power outlet (Lw)	dB(A)	41	45	48	51	52	53	55	57	57	40	42	47	49	51	52	53	55	56
Sound power inlet + radiated (Lw)	dB(A)	48	52	55	58	59	60	62	64	64	47	49	54	56	58	59	60	62	63

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

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	CRSL-ECM UK 73										CRSL-ECM UK 83									
	1	2	3	4	5	6	7	7,5	8	9	10	4	5	6	7	7,5	8	9	10	
Inverter power																				
Air flow	m <sup>3</sup> /h	573	811	1001	1184	1386	1574	1739	1837	1944	2050	2206	486	990	1389	1747	1911	2075	2393	2678
Cooling total emission	kW	2,87	3,77	4,44	5,02	5,66	6,21	6,70	6,97	7,27	7,54	7,91	2,17	4,50	5,98	7,16	7,41	7,88	9,11	9,72
Cooling sensible emission	kW	2,24	3,06	3,55	4,07	4,64	5,09	5,56	5,79	6,03	6,23	6,65	1,50	3,54	4,81	5,80	6,33	6,77	7,49	7,75
Heating emission	kW	3,98	5,40	6,45	7,43	8,46	9,36	10,13	10,58	11,05	11,52	12,16	3,54	6,73	8,99	10,87	11,69	12,48	14,00	15,25
Fan	W	34	48	62	79	104	131	156	170	189	217	256	32	40	75	142	160	196	291	392
Sound power outlet (Lw)	dB(A)	42	45	49	51	54	55	57	58	59	60	62	43	48	52	55	56	58	61	63
Sound power inlet + radiated (Lw)	dB(A)	49	52	56	58	61	62	64	65	66	67	69	50	55	59	62	63	65	68	70

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

**Note:** for the sound pressure levels with available pressure different from 30 Pa, contact the Sabiana technical sales department.

### 4 row coil units - 2 pipe systems

The following standard rating conditions are used:

#### COOLING

Entering air temperature: +23 °C d.b., 50% r.h.  
Water temperature: +6 °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.

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 14								CRSL-ECM UK 24								
		3	4	5	6	7	8	9	10	3	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	101	274	387	474	550	591	596	596	277	474	620	741	859	913	965	1066	1129
Cooling total emission	kW	0,62	1,44	1,89	2,20	2,45	2,58	2,60	2,60	1,58	2,46	3,03	3,44	3,84	4,00	4,18	4,48	4,67
Cooling sensible emission	kW	0,46	1,11	1,47	1,74	1,96	2,07	2,08	2,08	1,19	1,89	2,33	2,68	3,04	3,16	3,30	3,58	3,74
Heating emission	kW	0,75	1,96	2,65	3,14	3,55	3,76	3,79	3,79	2,09	3,39	4,30	5,00	5,66	5,96	6,23	6,74	7,06
Fan	W	12	18	27	36	47	54	55	55	20	30	40	53	69	77	86	118	125
Sound power outlet (Lw)	dB(A)	34	38	34	45	48	49	49	50	35	39	44	47	50	51	52	54	55
Sound power inlet + radiated (Lw)	dB(A)	41	45	41	52	55	56	56	57	42	46	51	54	57	58	59	61	62

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

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 44								CRSL-ECM UK 54									
		3	4	5	6	7	7,5	8	9	10	3	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	434	612	769	908	1037	1099	1159	1264	1324	482	659	901	1070	1225	1305	1384	1534	1596
Cooling total emission	kW	2,32	3,03	3,61	4,09	4,50	4,70	4,90	5,19	5,36	2,59	3,60	4,55	5,18	5,75	6,02	6,30	6,85	6,98
Cooling sensible emission	kW	1,78	1,78	2,85	3,27	3,60	3,76	3,96	4,20	4,34	1,50	2,52	3,27	3,72	4,19	4,38	4,58	4,97	5,07
Heating emission	kW	3,26	4,39	5,32	6,10	6,80	7,12	7,42	7,93	8,22	3,47	4,59	6,04	6,98	7,83	8,25	8,67	9,42	9,60
Fan	W	22	33	46	60	78	89	100	123	135	25	31	48	66	92	98	111	148	160
Sound power outlet (Lw)	dB(A)	41	45	48	51	52	53	55	57	57	40	42	47	49	51	52	53	55	56
Sound power inlet + radiated (Lw)	dB(A)	48	52	55	58	59	60	62	64	64	47	49	54	56	58	59	60	62	63

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

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 74										CRSL-ECM UK 84								
		1	2	3	4	5	6	7	7,5	8	9	10	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	573	811	1001	1184	1386	1574	1739	1837	1944	2050	2206	486	990	1389	1747	1911	2075	2393	2678
Cooling total emission	kW	3,08	4,06	4,79	5,45	6,11	6,69	7,20	7,50	7,82	8,08	8,53	2,72	4,99	6,49	7,69	8,21	8,70	9,61	10,39
Cooling sensible emission	kW	2,37	3,17	3,78	4,30	4,89	5,35	5,84	6,08	6,33	6,62	6,99	2,14	3,89	5,22	6,34	6,84	7,32	8,24	9,04
Heating emission	kW	4,25	5,80	6,90	8,08	9,23	9,70	11,10	11,60	12,20	12,70	13,50	3,54	6,87	9,30	11,35	12,26	13,14	14,80	16,21
Fan	W	34	48	62	79	104	131	156	170	189	217	256	32	40	75	142	160	196	291	392
Sound power outlet (Lw)	dB(A)	42	45	49	51	54	55	57	58	59	60	62	43	48	52	55	56	58	61	63
Sound power inlet + radiated (Lw)	dB(A)	49	52	56	58	61	62	64	65	66	67	69	50	55	59	62	63	65	68	70

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

**Note:** for the sound pressure levels with available pressure different from 30 Pa, contact the Sabiana technical sales department.

## 3+1 row coil units - 4 pipe systems

The following standard rating conditions are used:

### COOLING

Entering air temperature: +23 °C d.b., 50% r.h.  
Water temperature: +6 °C E.W.T. +12 °C L.W.T.

### HEATING

Entering air temperature: +21 °C  
Water temperature: +80 °C E.W.T. +60 °C L.W.T.

### Available static pressure: 30 Pa - With plenum and spigots

MODEL	CRSL-ECM UK 13+1									CRSL-ECM UK 23+1								
	3	4	5	6	7	8	9	10	3	4	5	6	7	7,5	8	9	10	
Inverter power																		
Air flow	m <sup>3</sup> /h	101	274	387	474	550	591	596	596	277	474	620	741	859	913	965	1066	1129
Cooling total emission	kW	0,57	1,27	1,66	1,93	2,15	2,27	2,28	2,28	1,37	2,10	2,56	2,94	3,27	3,41	3,56	3,80	3,96
Cooling sensible emission	kW	0,43	0,99	1,31	1,54	1,74	1,84	1,85	1,85	1,07	1,66	2,05	2,38	2,65	2,76	2,88	3,11	3,24
Heating emission	kW	0,94	1,90	2,35	2,67	2,92	3,04	3,05	3,06	2,06	2,94	3,47	3,86	4,21	4,35	4,49	4,74	4,89
Fan	W	12	18	27	36	47	54	55	55	20	30	40	53	69	77	86	118	125
Sound power outlet (Lw)	dB(A)	34	38	34	45	48	49	49	50	35	39	44	47	50	51	52	54	55
Sound power inlet + radiated (Lw)	dB(A)	41	45	41	52	55	56	56	57	42	46	51	54	57	58	59	61	62

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

### Available static pressure: 30 Pa - With plenum and spigots

MODEL	CRSL-ECM UK 43+1									CRSL-ECM UK 53+1									
	3	4	5	6	7	7,5	8	9	10	3	4	5	6	7	7,5	8	9	10	
Inverter power																			
Air flow	m <sup>3</sup> /h	434	612	769	908	1037	1099	1159	1264	1324	482	659	901	1070	1225	1305	1384	1534	1596
Cooling total emission	kW	2,14	2,79	3,31	3,76	4,15	4,33	4,49	4,78	4,94	1,97	2,76	3,75	4,38	4,91	5,19	5,45	5,89	6,08
Cooling sensible emission	kW	1,67	2,20	2,65	3,05	3,36	3,50	3,68	3,92	4,05	1,50	2,26	3,05	3,57	4,05	4,27	4,49	4,90	5,07
Heating emission	kW	2,97	3,72	4,28	4,74	5,12	5,29	5,46	5,72	5,88	3,40	4,25	5,19	5,75	6,25	6,50	6,74	7,32	7,47
Fan	W	22	33	46	60	78	89	100	123	135	25	31	48	66	92	98	111	148	160
Sound power outlet (Lw)	dB(A)	41	45	48	51	52	53	55	57	57	40	42	47	49	51	52	53	55	56
Sound power inlet + radiated (Lw)	dB(A)	48	52	55	58	59	60	62	64	64	47	49	54	56	58	59	60	62	63

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

### Available static pressure: 30 Pa - With plenum and spigots

MODEL	CRSL-ECM UK 73+1										CRSL-ECM UK 83+1									
	1	2	3	4	5	6	7	7,5	8	9	10	4	5	6	7	7,5	8	9	10	
Inverter power																				
Air flow	m <sup>3</sup> /h	573	811	1001	1184	1386	1574	1739	1837	1944	2050	2206	486	990	1389	1747	1911	2075	2393	2678
Cooling total emission	kW	2,87	3,77	4,44	5,02	5,66	6,21	6,70	6,97	7,27	7,54	7,91	2,17	4,50	5,98	7,16	7,41	7,88	9,11	9,72
Cooling sensible emission	kW	2,24	3,06	3,55	4,07	4,64	5,09	5,56	5,79	6,03	6,23	6,65	1,50	3,54	4,81	5,80	6,33	6,77	7,49	7,75
Heating emission	kW	4,23	5,33	6,09	6,77	7,45	8,03	8,51	8,78	9,07	9,32	9,71	3,82	6,28	7,85	9,08	9,62	10,13	11,08	11,50
Fan	W	34	48	62	79	104	131	156	170	189	217	256	32	40	75	142	160	196	291	392
Sound power outlet (Lw)	dB(A)	42	45	49	51	54	55	57	58	59	60	62	43	48	52	55	56	58	60	63
Sound power inlet + radiated (Lw)	dB(A)	49	52	56	58	61	62	64	65	66	67	69	50	55	59	62	63	65	68	70

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

**Note:** for the sound pressure levels with available pressure different from 30 Pa, contact the Sabiana technical sales department.



### 4+1 row coil unit - 4 pipe systems

The following standard rating conditions are used:

#### COOLING

Entering air temperature: +23 °C d.b., 50% r.h.  
Water temperature: +6 °C E.W.T. +12 °C L.W.T.

#### HEATING

Entering air temperature: +21 °C  
Water temperature: +80 °C E.W.T. +60 °C L.W.T.

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 14+1								CRSL-ECM UK 24+1								
		3	4	5	6	7	8	9	10	3	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	101	274	387	474	550	591	596	596	277	474	620	741	859	913	965	1066	1129
Cooling total emission	kW	0,62	1,44	1,89	2,20	2,45	2,58	2,60	2,60	1,58	2,46	3,03	3,44	3,84	4,00	4,18	4,48	4,67
Cooling sensible emission	kW	0,46	1,11	1,47	1,74	1,96	2,07	2,08	2,08	1,19	1,89	2,33	2,68	3,04	3,16	3,30	3,58	3,74
Heating emission	kW	0,94	1,90	2,35	2,67	2,92	3,04	3,05	3,06	2,06	2,94	3,47	3,86	4,21	4,35	4,49	4,74	4,89
Fan	W	12	18	27	36	47	54	55	55	20	30	40	53	69	77	86	118	125
Sound power (Lw)	dB(A)	34	38	34	45	48	49	49	50	35	39	44	47	50	51	52	54	55
Sound power inlet + radiated (Lw)	dB(A)	41	45	41	52	55	56	56	57	42	46	51	54	57	58	59	61	62

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

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 44+1								CRSL-ECM UK 54+1									
		3	4	5	6	7	7,5	8	9	10	3	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	434	612	769	908	1037	1099	1159	1264	1324	482	659	901	1070	1225	1304	1384	1534	1596
Cooling total emission	kW	2,32	3,03	3,61	4,09	4,50	4,70	4,90	5,19	5,36	2,59	3,60	4,55	5,18	5,75	6,02	6,30	6,85	6,98
Cooling sensible emission	kW	1,78	1,78	2,85	3,27	3,60	3,76	3,96	4,20	4,34	1,50	2,52	3,27	3,72	4,19	4,38	4,58	4,97	5,07
Heating emission	kW	2,97	3,72	4,28	4,74	5,12	5,29	5,46	5,72	5,88	3,40	4,25	5,19	5,75	6,25	6,50	6,74	7,32	7,47
Fan	W	22	33	46	60	78	89	100	123	135	25	31	48	66	92	98	111	148	160
Sound power (Lw)	dB(A)	41	45	48	51	52	53	55	57	57	40	42	47	49	51	52	53	55	56
Sound power inlet + radiated (Lw)	dB(A)	48	52	55	58	59	60	62	64	64	47	49	54	56	58	59	60	62	63

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

#### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 74+1								CRSL-ECM UK 84+1										
		1	2	3	4	5	6	7	7,5	8	9	10	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	573	811	1001	1184	1386	1574	1739	1837	1944	2050	2206	486	990	1389	1747	1911	2075	2393	2678
Cooling total emission	kW	3,08	4,06	4,79	5,45	6,11	6,69	7,20	7,50	7,82	8,08	8,53	2,72	4,99	6,49	7,69	8,21	8,70	9,61	10,39
Cooling sensible emission	kW	2,37	3,17	3,78	4,30	4,89	5,35	5,84	6,08	6,33	6,62	6,99	2,14	3,89	5,22	6,34	6,84	7,32	8,24	9,04
Heating emission	kW	4,23	5,33	6,09	6,77	7,45	8,03	8,51	8,78	9,07	9,32	9,71	3,82	6,28	7,85	9,08	9,62	10,13	11,08	11,50
Fan	W	34	48	62	79	104	131	156	170	189	217	256	32	40	75	142	160	196	291	392
Sound power outlet (Lw)	dB(A)	42	45	49	51	54	55	57	58	59	60	62	43	48	52	55	56	58	61	63
Sound power inlet + radiated (Lw)	dB(A)	49	52	56	58	61	62	64	65	66	67	69	50	55	59	62	63	65	68	70

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

**Note:** for the sound pressure levels with available pressure different from 30 Pa, contact the Sabiana technical sales department.

## 3+2 row coil units - 4 pipe systems

The following standard rating conditions are used:

### COOLING

Entering air temperature: +23 °C d.b., 50% r.h.

Water temperature: +6 °C E.W.T. +12 °C L.W.T.

### HEATING

Entering air temperature: +21 °C

Water temperature: +80 °C E.W.T. +60 °C L.W.T.

### Available static pressure: 30 Pa - With plenum and spigots

MODEL	Inverter power	CRSL-ECM UK 13+2								CRSL-ECM UK 23+2								
		3	4	5	6	7	8	9	10	3	4	5	6	7	7,5	8	9	10
Air flow	m <sup>3</sup> /h	101	274	387	474	550	591	596	596	277	474	620	741	859	913	965	1066	1129
Cooling total emission	kW	0,57	1,27	1,66	1,93	2,15	2,27	2,28	2,28	1,37	2,10	2,56	2,94	3,27	3,41	3,56	3,80	3,96
Cooling sensible emission	kW	0,43	0,99	1,31	1,54	1,74	1,84	1,85	1,85	1,07	1,66	2,05	2,38	2,65	2,76	2,88	3,11	3,24
Heating emission	kW	1,48	3,24	4,15	4,78	5,28	5,54	5,56	5,56	3,64	5,46	6,61	7,48	8,26	8,59	8,91	9,49	9,83
Fan	W	12	18	27	36	47	54	55	55	20	30	40	53	69	77	86	118	125
Sound power outlet (Lw)	dB(A)	34	38	34	45	48	49	49	50	35	39	44	47	50	51	52	54	55
Sound power inlet + radiated (Lw)	dB(A)	41	45	41	52	55	56	56	57	42	46	51	54	57	58	59	61	62

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

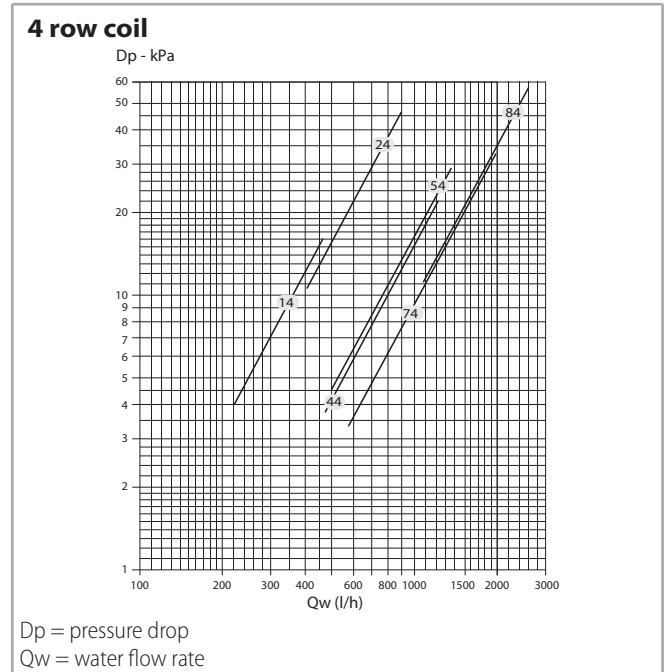
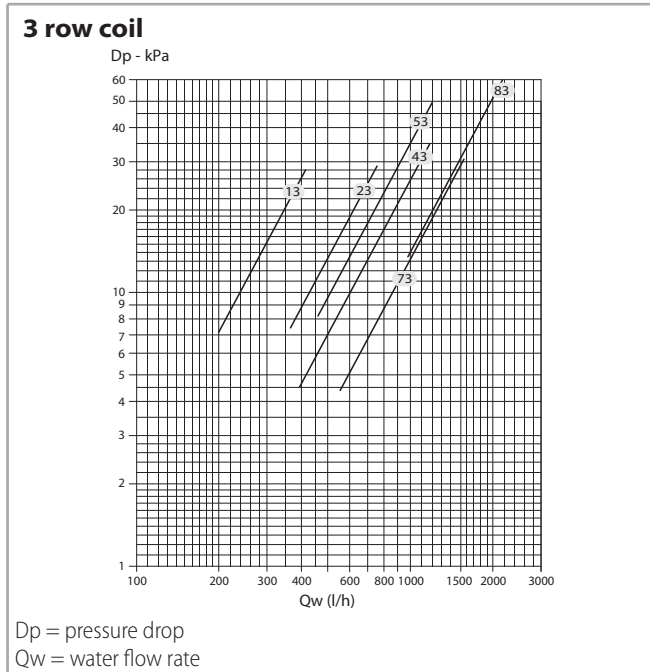
MODEL	Inverter power	CRSL-ECM UK 43+2									
		3	4	5	6	7	7,5	8	9	10	
Air flow	m <sup>3</sup> /h	434	612	769	908	1037	1099	1159	1264	1324	
Cooling total emission	kW	2,14	2,79	3,31	3,76	4,15	4,33	4,49	4,78	4,94	
Cooling sensible emission	kW	1,67	2,20	2,65	3,05	3,36	3,50	3,68	3,92	4,05	
Heating emission	kW	5,55	7,18	8,46	9,50	10,40	10,81	11,20	11,84	12,20	
Fan	W	22	33	46	60	78	89	100	123	135	
Sound power outlet (Lw)	dB(A)	41	45	48	51	52	53	55	57	57	
Sound power inlet + radiated (Lw)	dB(A)	48	52	55	58	59	60	62	64	64	

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

**Note:** for the sound pressure levels with available pressure different from 30 Pa, contact the Sabiana technical sales department.

## WATER SIDE PRESSURE DROP

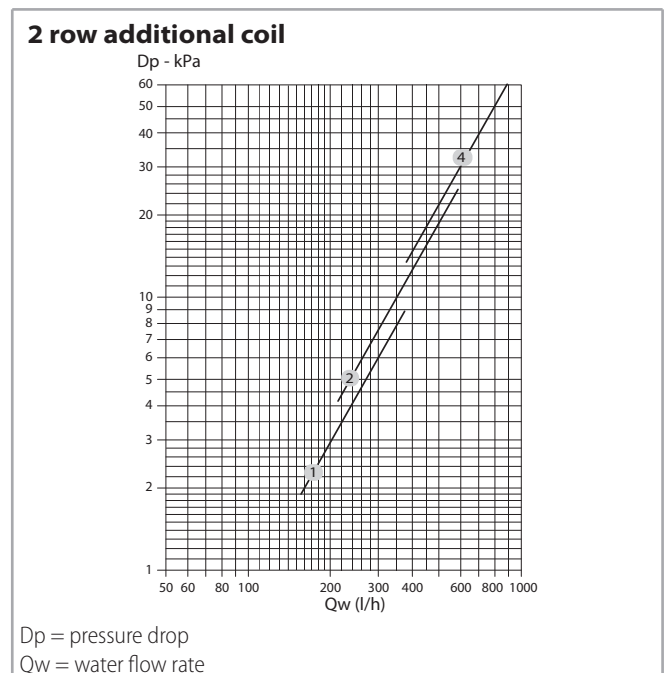
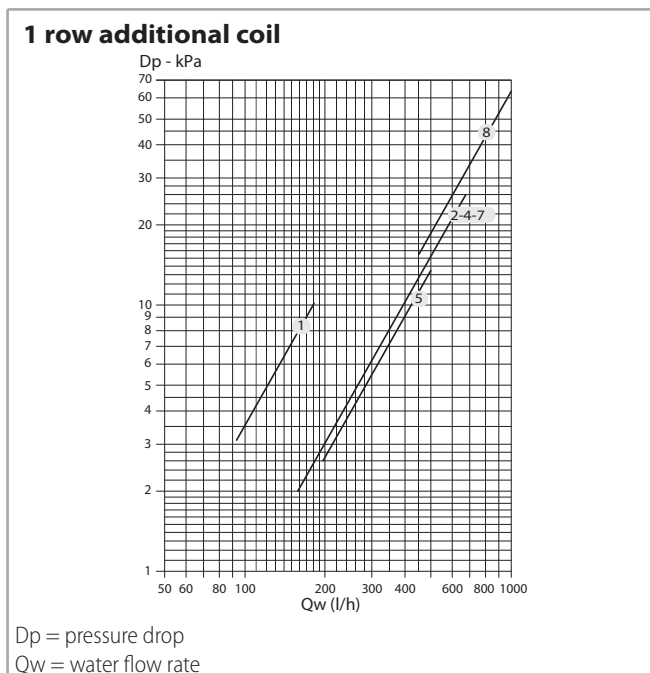
### Main coil



Pressure drop for mean water temperature of 10 °C, for different temperatures multiply the pressure drop figure by the K correction factors in the table.

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

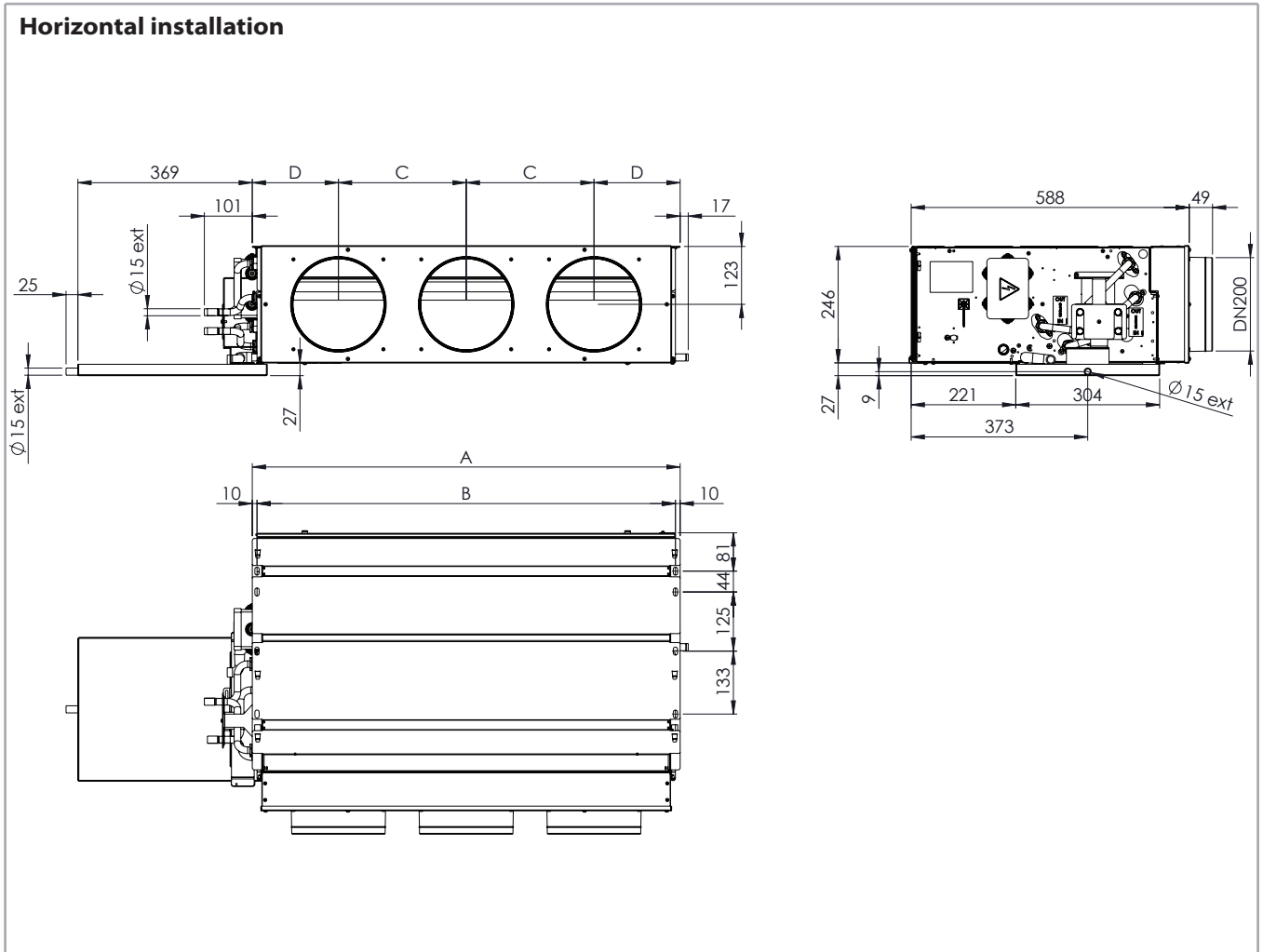
(1) for entering water temperatures below +6 °C, contact the technical department

## Motor electrical data - max. absorption

Model		CRSL-ECM UK 1	CRSL-ECM UK 2	CRSL-ECM UK 4	CRSL-ECM UK 5	CRSL-ECM UK 7	CRSL-ECM UK 8
Motor absorption	W	52	134	131	162	303	420
Current absorbed	A	0,40	1,10	1,10	1,25	1,40	2,60

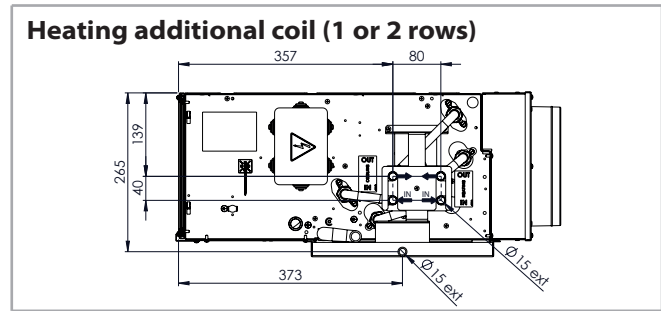
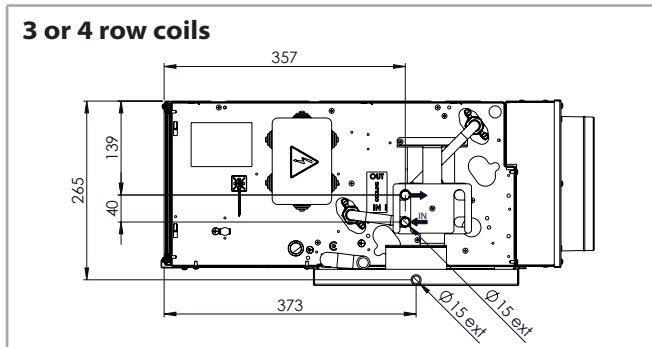
## DIMENSION, WEIGHT AND WATER CONTENT

### Dimensions

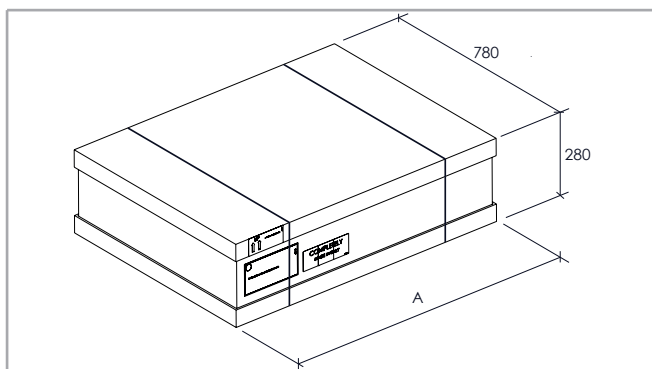


Mod.		CRSL-ECM UK 1	CRSL-ECM UK 2	CRSL-ECM UK 4	CRSL-ECM UK 5	CRSL-ECM UK 7	CRSL-ECM UK 8
A	mm	689	904	1119	1334	1549	1764
B	mm	669	884	1099	1314	1529	1744
C	mm	313	270	348	310	354	320
D	mm	188	182	211,5	202	243,5	242
n° spigots		2	3	3	4	4	5

## Hydraulic connections



## Packed unit



Mod.		1	2	4	5	7	8
A	mm	1015	1230	1445	1660	1875	2090

## Weight

### Weights without packaging (kg)

	CRSL-ECM UK 1	CRSL-ECM UK 2	CRSL-ECM UK 4	CRSL-ECM UK 5	CRSL-ECM UK 7	CRSL-ECM UK 8
3 rows	22,4	29,7	32,0	42,6	51,7	57,9
3+1 rows	23,7	31,3	34,0	44,7	54,1	60,3
3+2 rows	24,4	32,2	35,1	-	-	-
4 rows	23,4	31,0	33,1	44,0	53,4	59,6
4+1 rows	24,7	32,6	35,1	46,1	55,8	62,1

### Weights with packaging (kg)

	CRSL-ECM UK 1	CRSL-ECM UK 2	CRSL-ECM UK 4	CRSL-ECM UK 5	CRSL-ECM UK 7	CRSL-ECM UK 8
3 rows	25,5	33,2	35,9	46,8	56,2	62,8
3+1 rows	26,9	34,8	37,8	48,9	58,7	65,2
3+2 rows	27,6	35,7	38,9	-	-	-
4 rows	26,5	34,5	37,0	48,2	57,9	64,5
4+1 rows	27,9	36,1	38,9	50,3	60,4	67,0

## Water content (litres)

Mod.	13	14	23	24	43	44	53	54	73	74	83	84
2 pipe unit	0,9	1,3	1,6	2,2	1,9	2,8	2,6	3,4	3,2	4,2	3,7	4,8
4 pipe unit	+1 row	0,3	0,3	0,5	0,5	0,6	0,6	0,8	0,8	0,9	0,9	1,0
	+2 rows	0,6	-	1,0	-	1,2	-	-	-	-	-	-

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



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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, termostriche 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, termostriche 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.

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**ICIM S.p.A.**  
 Piazza Don Enrico Mapelli, 75 - 20099 Sesto San Giovanni (MI)  
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**SABIANA SpA**

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



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Operative unit  
via Virgilio 2, Magenta-MI Italia