

# BREZZA

## SERIES



T E C H N I C A L M A N U A L

NEW  
WATER  
CASSETTE





## INDEX

1-INTRODUCTION.....	4
2- WORKING CONDITION LIMITS.....	4
3- COANDA EFFECT .....	4
4- KEY READING CODES .....	6
5-TECHNICAL SPECIFICATIONS .....	6
6-TECHNICAL DATA (AC motors).....	8
6.1-Cassette with 3 rows coil .....	8
7- TECHNICAL DATA (EC motors).....	9
7.1- Cassette with 3 rows coil .....	9
8- OPTIONAL COIL TECHNICAL DATA (AC motors).....	10
8.1- Cassette with 1 or 2 rows coil.....	10
9- TECHNICAL DATA OPTIONAL COILS (EC motor).....	11
9.1- Cassette with 1 or 2 rows coil.....	11
10- DIMENSIONS & WEIGHTS .....	12
11-ACCESSORIES.....	13
11.1- Valves (V) and auxiliary tank (ADPB).....	14
11.2- Condensate drain pump Auxiliary (PSCC-BI).....	15
11.3-Flange for air delivery duct (FLMA) .....	16
11.5- Metal cover for exposed installation (MECO).....	17
11.6-Filter with Sanitized treatment (FA/SAN).....	19
11.7-High efficiency filter (FA/H) .....	19
11.8-Electrical heater (EH).....	19
12-Hygienic version .....	20
13- Electrical wiring diagrams.....	21
13.1- Wiring diagram cassette with AC motor.....	21
13.2- Wiring diagram cassette with EC motor.....	22

## 1-INTRODUCTION

The new Water Cassette Series BREZZA units are designed for air conditioning in residential and commercial plants. The installation is indoor, not exposed to ice or extreme temperatures, in dust-free and not explosive environments. The manufacturer declines any responsibility in case of incorrect use.

The series BREZZA is proposed with traditional three speeds AC motors, and with low consumption EC motors. The table below shows the electric power saving that can be achieved with EC motors (at constant working point of the machine).

	size	73			93		
		min	med	max	min	med	max
Speed							
Airflow	mc/h	350	500	710	560	810	940
AC motor power	W	30	38	50	54	72	87
EC motor power	W	5	10	21	12	32	47
Difference		-83%	-74%	-58%	-78%	-56%	-46%

## 2- WORKING CONDITION LIMITS

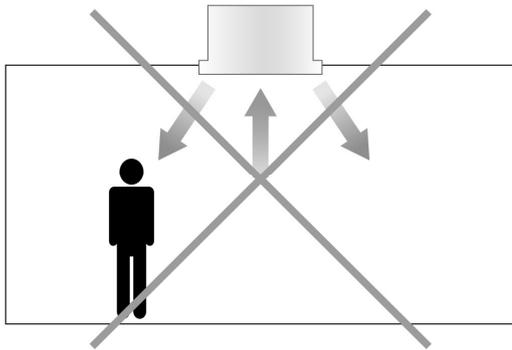
Electrical power supply	220 ÷ 240V / 50Hz
Inlet coil water temperature	5 ÷ 70°C
Return air temperature	12 ÷ 50°C
RH air intake	15 ÷ 70%

It is advisable for the Brezza Cassette to work at the above mentioned extremes operation limits ONLY for short periods. Operation at such limit conditions for prolonged periods can reduce the normal life of the components.

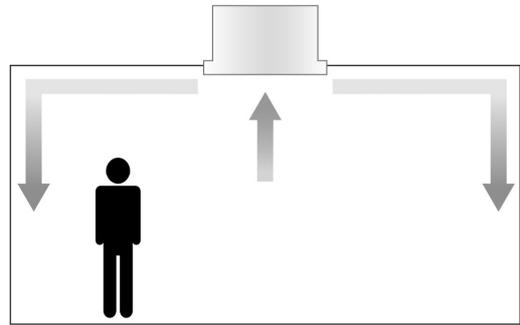
## 3- COANDA EFFECT

The new cassette Series BREZZA has been developed to ensure high comfort. In fact, the particular shape of the panel as per the COANDA effect, avoids the annoying cold drafts (a common problem with fan-coil cassette).

COANDA effect is the tendency of a fluid jet to follow the contour of a nearby surface. This way the air flow follows the ceiling, then flows down near the wall. Since at this point the air flows at very low speed, this does not create uncomfortable air streams.

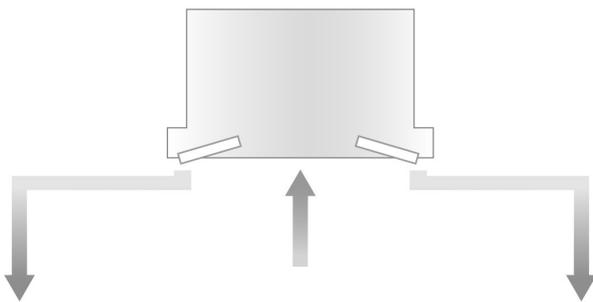


*Traditional Cassette*

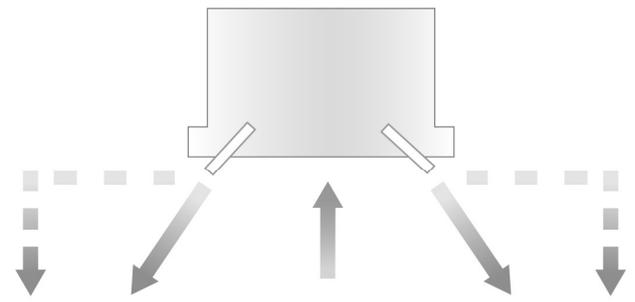


*Cassette with Coanda effect*

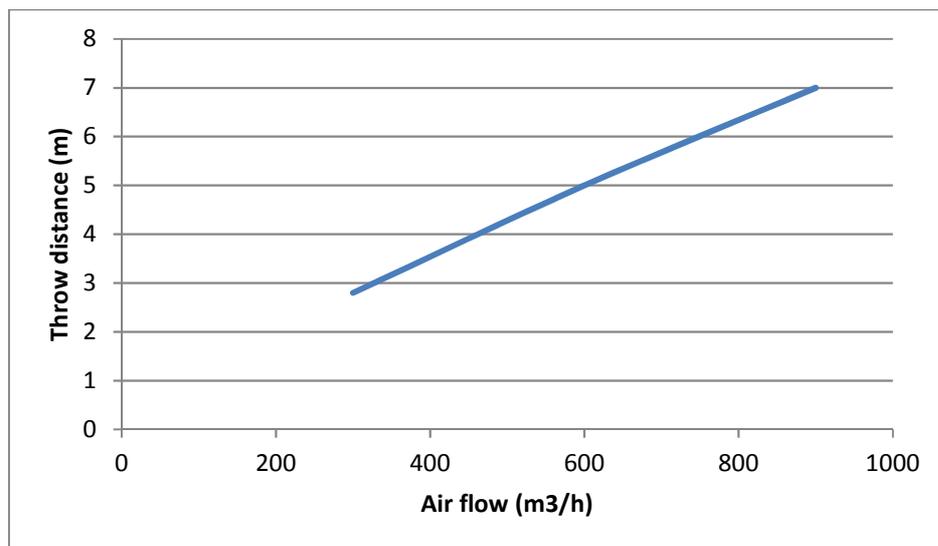
Where the ceiling height is over 3m, and therefore there is the need to channel down the air flow, Aertesi provides an accessory panel with adjustable flaps. This way you can manually set, for each of the four turns, the orientation of the flow: horizontal (with Coanda effect), or in vertical position.



*Flaps on horizontal position (Coanda)*



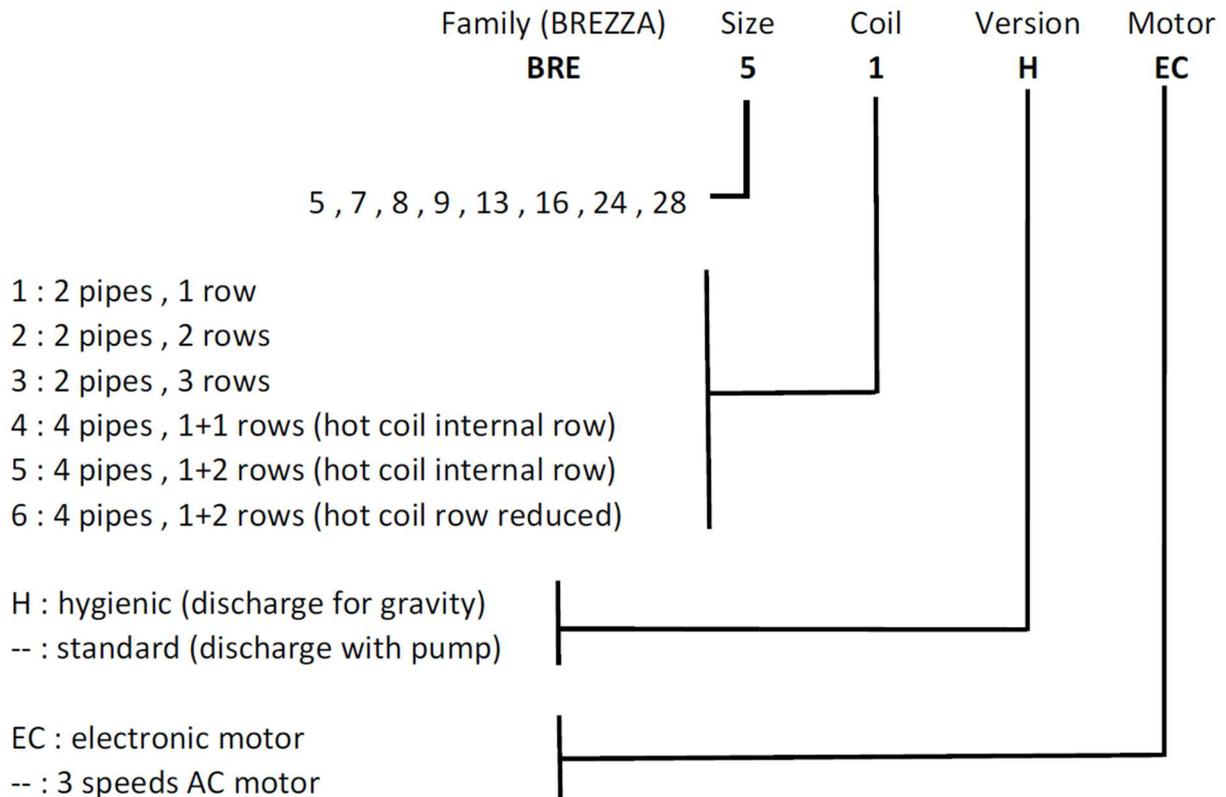
*Flaps on vertical position*



*CAUTION: the difference of temperature between outlet air and room air may affect the throw distance.*

## 4- KEY READING CODES

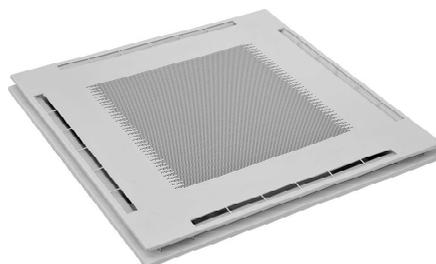
The standard version is with 3-row coil (for 2 pipe versions) or 1 + 2 ranks (for 4 pipe versions), with fixed blades in Coanda position. All other versions are optional.



## 5-TECHNICAL SPECIFICATIONS

**STRUCTURE:** made in galvanized steel sheet, thickness 1.00mm. The robust design prevents vibration and includes mounting brackets to the ceiling.

**FRONT PANEL:** painted plate thickness 0.8mm. The conformation of the baffles ensures a Coanda Effect to the air flow outlet. As an accessory, adjustable deflectors are available, allowing the switch between Coanda or vertical airflow (or intermediate positions). The fresh design of the panel fits perfectly into any environment and type of ceiling.



**ACCESSIBILITY:** the filter can be removed without need of any tools. Internal components (fan and condensate pump) are easily accessible by removing the front panel. Water connections, valves and electrical panel are located on the same side, thus needing only one inspection hatch in the ceiling.

**FILTER:** Class G1 (EN779), 6mm thickness, made in polypropylene mesh.

**FAN GROUP:** The fan is made of reinforced plastic material (nylon PA6-25GF); it mounts backward curved blades, directly coupled to the motor. The motor and the fans are balanced after assembly to ensure the absence of vibrations. Motor is mounted on ball bearings (no maintenance needed).

The AC motor is a three-speed, degree of protection IP44, insulation class "B". Thermal protection incorporated.

The EC motor 0-10V comes with electronic control, IP54 protection, insulation class "B", noise emissions according to EN 61000-6-3 (civil environment), thermal motor and electronics protection, locked rotor protection.

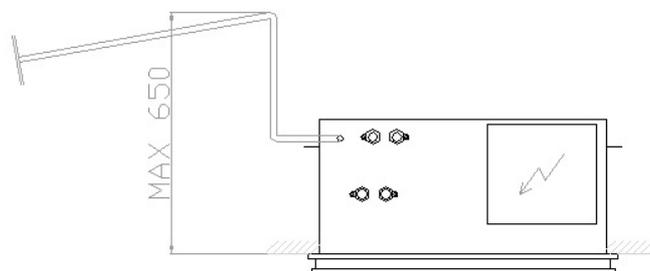
**COIL:** made with copper pipe diameter 3/8 "and high efficiency corrugated aluminum fins, with manual air vent valve at the top. Nominal pressure PN10.

**WATER TRAP:** blower housing made of expanded polystyrene (EPP) with molded plastic condensation tank, ensuring no water leakage even after long use. The shape of the tank facilitates the outflow and ensures minimum stagnation of water.

**INSULATION:** cassette body insulated with cross-linked polyethylene foam 10 mm thick, class B-BL-s2d0 s1d0, in compliance with EN13501-1. Front panel insulated with polyethylene, thickness 3mm.

**ELECTRICAL BOARD:** case in galvanized steel plate, positioned on the same side of the water connections.

**CONDENSATE DRAIN PUMP:** centrifugal type, includes a double level float switch [ar1](on-off pump and alarm) and check valve (to avoid the return of odors from the exhaust and reduce noise at power-on). The maximum head of the pump is 650mm, measured from the edge of the panel.



## 6-TECHNICAL DATA (AC motors)

### 6.1-Cassette with 3 rows coil



		2 PIPES												4 PIPES					
		53			73			83			93			75			95		
Speed(E)		min	med	max	min	med	max	min	med	max	min	med	max	min	med	max	min	med	max
Airflow	mc/h	290	380	550	350	500	710	410	560	770	560	820	950	350	500	710	540	790	920
<b>COOLING – Air 27°C d.b. , 19°C w.b.–inlet water temperature 7°C , output water temperature 12°C</b>																			
Total capacity(E)	kW	2.12	2.64	3.62	2.46	3.35	4.46	2.82	3.68	4.76	3.68	4.97	5.60	2.13	2.83	3.65	2.98	3.92	4.38
Sens. capacity(E)	kW	1.52	1.92	2.58	1.79	2.40	3.14	2.05	2.62	3.33	2.62	3.49	3.90	1.52	1.98	2.55	2.09	2.73	3.03
Water flow	l/h	363	453	622	421	575	765	484	633	817	633	853	960	365	486	626	511	672	752
Δp water(E)	kPa	3.6	5.3	9.2	4.6	8.1	13.5	5.9	9.5	15.2	9.5	16.4	20.3	5.3	8.7	13.9	9.7	15.9	19.4
<b>HEATING – Air 20°C –inlet water temperature 50°C ,same for cooling flow</b>																			
Capacity(E)	kW	2.47	3.11	4.23	2.9	3.91	5.19	3.32	4.30	5.53	4.30	5.81	6.49	-	-	-	-	-	-
Water flow	l/h	363	453	622	421	575	765	484	633	817	633	853	960	-	-	-	-	-	-
Δp water(E)	kPa	3.3	4.9	8.7	4.3	7.5	12.7	5.5	8.9	14.5	8.9	15.6	19.3	-	-	-	-	-	-
<b>HEATING – Air 20°C - inlet water temperature 70°C , output water temperature 60°C</b>																			
Capacity(E)	kW	-	-	-	-	-	-	-	-	-	-	-	-	3.04	3.9	4.83	4.07	5.17	5.67
Water flow	l/h	-	-	-	-	-	-	-	-	-	-	-	-	267	342	424	358	454	499
Δp water(E)	kPa	-	-	-	-	-	-	-	-	-	-	-	-	4.6	7.2	10.7	7.8	12.1	14.3
<b>ELECTRIC MOTOR ABSORPTION</b>																			
Consumption(E)	W	25	30	40	30	38	50	41	50	64	54	72	87	30	38	50	54	72	87
Maxabsorption	A	0.18			0.23			0.29			0.40			0.23			0.40		
<b>SOUND DATA</b>																			
Sound power(E)	dB(A)	33	39	48	36	45	55	40	48	57	49	59	62	36	45	55	49	59	62
Sound pressure	dB(A)	24	30	39	27	36	46	31	39	48	40	50	53	27	36	46	40	50	53

(E)= EUROVENT certified data (Heating application ratings as in NS1 working condition)

## 7- TECHNICAL DATA (EC motors)

### 7.1- Cassette with 3 rows coil



		2 PIPES						4 PIPES					
		73			93			75			95		
Speed(E)		4,7V	6,6V	9,8V	4,0V	6,4V	8,8V	4,7V	6,6V	9,8V	4,0V	6,4V	8,8V
Airflow	mc/h	300	445	685	355	595	835	300	445	685	355	595	835
<b>COOLING – Air 27°C d.b. , 19°C w.b.. – inlet water temperature 7°C , output water temperature 12°C</b>													
Total capacity(E)	kW	2.18	3.03	4.32	2.49	3.86	5,05	1.89	2.58	3.53	2.17	3.19	4.08
Sens.capacity(E)	kW	1.57	2.17	3.04	1.82	2.73	3,53	1.36	1.82	2.48	1.54	2.24	2.85
Water flow	l/h	375	520	741	427	662	866	324	442	605	372	547	701
Δp water(E)	kPa	3.8	6.7	12.6	5	10.3	16.9	4.2	7.4	13.1	5.4	10.9	17.1
<b>HEATING – Air 20°C – inlet water temperature 50°C , same for cooling flow</b>													
Capacity(E)	kW	2.55	3.54	5.02	2.95	4.50	5.89	-	-	-	-	-	-
Water flow	l/h	375	520	741	427	662	866	-	-	-	-	-	-
Δp water(E)	kPa	3.5	6.4	12.1	4.4	9.7	16.0	-	-	-	-	-	-
<b>HEATING – Air 20°C - inlet water temperature 70°C , output water temperature 60°C</b>													
Capacity(E)	kW	-	-	-	-	-	-	2.77	3.57	4.72	3.09	4.33	5.35
Water flow	l/h	-	-	-	-	-	-	251	323	428	280	392	485
Δp water(E)	kPa	-	-	-	-	-	-	3.8	6.1	10.3	4.7	8.7	12.9
<b>ELECTRIC MOTOR ABSORTION</b>													
Consumption(E)	W	4	8	20	5	15	34	4	8	20	5	15	34
Maxabsorption	A	0.17			0.38			0.17			0.38		
<b>SOUND DATA</b>													
Sound power(E)	dB(A)	33	43	54	37	50	59	33	43	54	37	50	59
Sound pressure	dB(A)	24	34	45	28	41	50	24	34	45	28	41	50
<b>ENERGY SAVING CLASS</b>													
FCEER (E)		A			A			A			A		
FCCOP(E)		A			A			A			A		

(E)= EUROVENT certified data (Heating application ratings as in NS1 working condition)

## 8- OPTIONAL COIL TECHNICAL DATA (AC motors)

### 8.1- Cassette with 1 or 2 rows coil

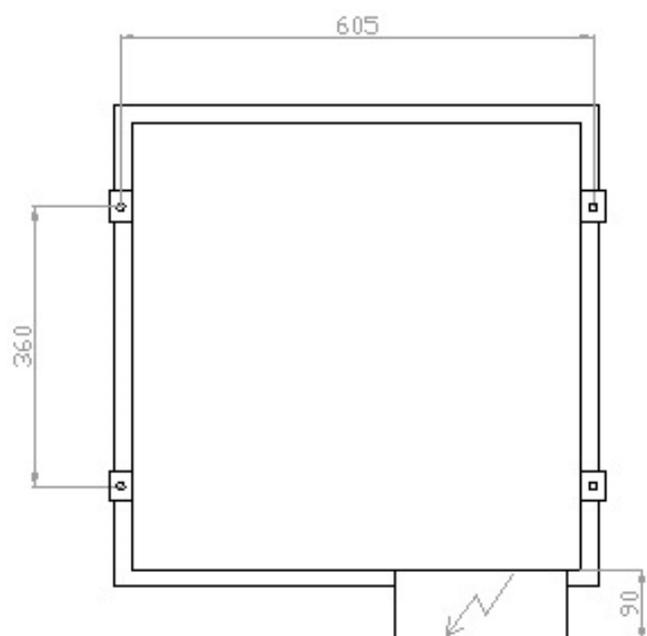
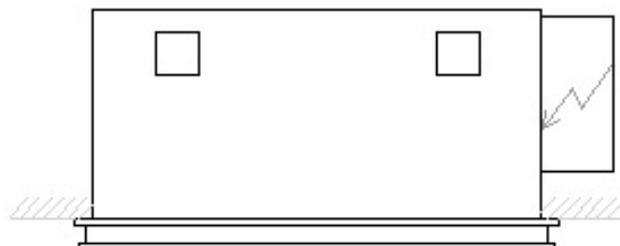
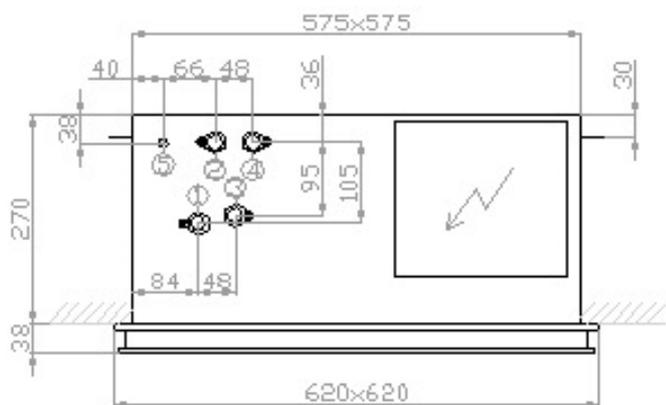
		2 PIPES												4 PIPES					
		51			52			72			92			74			94		
Speed		min	med	max	min	med	max	min	med	max	min	med	max	min	med	max	min	med	max
Airflow	mc/h	290	380	550	290	380	550	350	500	710	560	820	950	350	500	710	540	790	920
<b>COOLING – Air 27°C d.b. , 19°C w.b.. – inlet water temperature 7°C , output water temperature 12°C</b>																			
Total capacity	kW	1.26	1.52	1.95	1.74	2.18	2.89	2.04	2.7	3.48	2.92	3.86	4.28	1.35	1.71	2.15	1.80	2.27	2.53
Sens.capacity	kW	0.91	1.09	1.37	1.28	1.56	2.04	1.48	1.92	2.45	2.07	2.70	2.98	0.99	1.22	1.52	1.28	1.62	1.78
Water flow	l/h	216	261	334	298	375	496	350	463	597	501	662	737	232	293	370	309	390	434
Δp water	kPa	3.7	5.2	8.0	3.5	5.2	8.5	4.5	7.5	12	8.7	14.5	17.5	3.9	5.9	9	6.4	9.9	12.1
<b>HEATING – Air 20°C – inlet water temperature 50°C , same for cooling flow</b>																			
Capacity	kW	1.55	1.86	2.37	2.11	2.63	3.44	2.45	3.23	4.15	3.51	4.61	5.09	-	-	-	-	-	-
Water flow	l/h	216	261	334	298	375	496	350	463	597	501	662	734	-	-	-	-	-	-
Δp water	kPa	3.5	4.9	7.7	3.3	4.8	8.1	4.3	7.2	11.4	8.3	13.8	16.8	-	-	-	-	-	-
<b>HEATING – Air 20°C - inlet water temperature 70°C , output water temperature 60°C</b>																			
Capacity	kW	-	-	-	-	-	-	-	-	-	-	-	-	3.04	3.9	4.83	4.07	5.17	5.67
Water flow	l/h	-	-	-	-	-	-	-	-	-	-	-	-	267	342	424	358	454	499
Δp water	kPa	-	-	-	-	-	-	-	-	-	-	-	-	4.6	7.2	10.7	7.8	12.1	14.3
<b>ELECTRIC MOTOR ABSORTION</b>																			
Consumption	W	25	30	40	25	30	40	30	38	50	54	72	87	30	38	50	54	72	87
Maxabsorption	A	0.18			0.18			0.23			0.40			0.23			0.40		
<b>SOUND DATA</b>																			
Sound power	dB(A)	33	39	48	33	39	48	36	45	55	49	59	62	36	45	55	49	59	62
Sound pressure	dB(A)	24	30	39	24	30	39	27	36	46	40	50	53	27	36	46	40	50	53

## 9- TECHNICAL DATA OPTIONAL COILS (EC motor)

### 9.1- Cassette with 1 or 2 rows coil

	2 PIPES									4 PIPES						
	71			72			92			74			94			
Speed		4,7V	6,6V	9,8V	4,7V	6,6V	9,8V	4,0V	6,4V	8,8V	4,7V	6,6V	9,8V	4,0V	6,4V	8,8V
Airflow	mc/h	300	445	685	300	445	685	355	595	835	300	445	685	355	595	835
<b>COOLING – Air 27°C d.b. , 19°C w.b.. – inlet water temperature 7°C , output water temperature 12°C</b>																
Total capacity	kW	1,30	1,70	2,24	1,79	2,47	3,38	2,06	3,05	3,91	1,22	1,57	2,07	1,38	1,91	2,39
Sens.capacity	kW	0,94	1,20	1,57	1,32	1,76	2,38	1,50	2,16	2,73	0,88	1,13	1,48	0,99	1,36	1,67
Water flow	l/h	224	292	384	308	424	579	354	524	671	209	269	355	236	328	411
Δp water	kPa	3,9	6,3	9,1	3,6	6,4	11,3	4,6	9,4	14,8	3,2	5,1	8,4	4	7,2	10,9
<b>HEATING – Air 20°C – inlet water temperature 50°C , same for cooling flow</b>																
Capacity	kW	1,59	2,07	2,72	2,18	2,95	4,04	2,49	3,65	4,65	-	-	-	-	-	-
Water flow	l/h	224	292	384	308	424	579	354	524	671	-	-	-	-	-	-
Δp water	kPa	3,6	6,0	9,9	3,4	6,1	10,8	4,4	9,0	14,2	-	-	-	-	-	-
<b>HEATING – Air 20°C - inlet water temperature 70°C , output water temperature 60°C</b>																
Capacity	kW	-	-	-	-	-	-	-	-	-	2,77	3,57	4,72	3,09	4,32	5,35
Water flow	l/h	-	-	-	-	-	-	-	-	-	244	313	415	272	380	470
Δp water	kPa	-	-	-	-	-	-	-	-	-	3,8	6,1	10,2	4,7	8,7	12,9
<b>ELECTRIC MOTOR ABSORTION</b>																
Consumption	W	4	8	20	4	8	20	5	15	34	4	8	20	5	15	34
Maxabsorption	A	0,17			0,17			0,38			0,17			0,38		
<b>SOUND DATA</b>																
Sound power	dB(A)	33	43	54	33	43	54	37	50	59	33	43	54	37	50	59
Sound pressure	dB(A)	24	34	45	24	34	45	28	41	50	24	34	45	28	41	50
<b>ENERGY SAVING CLASS</b>																
FCEER		A			A			A			A			B		
FCCOP		A			A			A			A			A		

## 10- DIMENSIONS & WEIGHTS



1	Main coil IN	1/2"
2	Main coil OUT	1/2"
3	Auxiliary coil IN	1/2"
4	Auxiliary coil OUT	1/2"
5	Drain tank	d.12

		51/71	52/72/92	53/73/83/93	74 / 94	75 / 95
Unit gross Weight	kg	27	28	30	28	30
Internal volume main coil	liter	0,6	1,3	2,0	1,4	1,4
Internal volume auxiliary coil	liter	-	-	-	0,6	0,6

## 11-ACCESSORIES

Accessories available are:

	<b>HYDRAULIC ACCESSORIES</b>	<b>A/K/C</b>
<b>V22</b>	2-way valve ON-OFF 230V	A/K
<b>V42</b>	2-way valve ON-OFF for 4 pipe	A/K
<b>V23</b>	3-way valve ON-OFF 230V	A/K
<b>V43</b>	3-way valve ON-OFF 230V for 4 pipe	A/K
<b>V22M</b>	2-way valve modulating 0-10V	A/K
<b>V42M</b>	2-way valve modulating 0-10V for 4 pipe	A/K
<b>V23M</b>	3 way valve modulating 0-10V	A/K
<b>V43M</b>	3 way valve modulating 0-10V for 4 pipe	A/K
<b>ADPB</b>	Auxiliary water trap (supplied as standard)	K
<b>PSCC-BI</b>	PSCC-BI Auxiliary Condensate drain pump	A
	<b>ELETTRICAL ACCESSORIES</b>	
<b>TR24</b>	Transformer 230Vac-24VAC, 20VA for modulating valve	A
<b>EH</b>	Electric heater with relay and safety thermostat	A
	<b>AEREAULIC ACCESSORIES</b>	
<b>FLMA</b>	Flange for discharge air duct	B
<b>FLAE</b>	Flange for fresh air intake	B
<b>MECO</b>	Metal cover for exposed installation	K
	<b>OPTIONAL FILTERS</b>	
<b>FA/SAN</b>	Filter with Sanitized treatment	A
<b>FA/H</b>	High efficiency filter PF-ePM10 65% (only for hygienic version H)	K

### A / K / C:

A = accessory supplied already mounted on the base;

K = accessory kit supplied unassembled;

B = accessory supplied assembled, but not mounted on the base

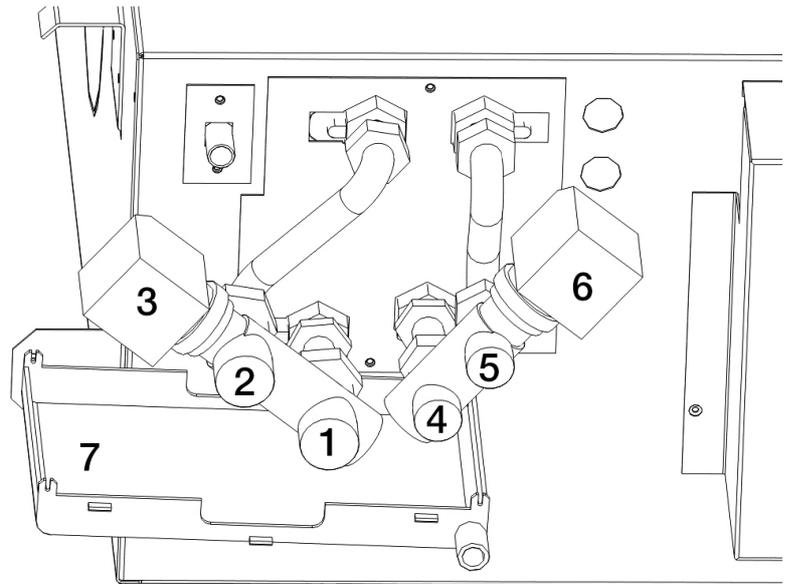
## 11.1- Valves (V) and auxiliary tank (ADPB)

We recommend the use of servo-controlled valves, to prevent the formation of condensation on the surface of the unit when the fan is stopped.

The valves can be supplied assembled on the unit or in kit (disassembled parts).

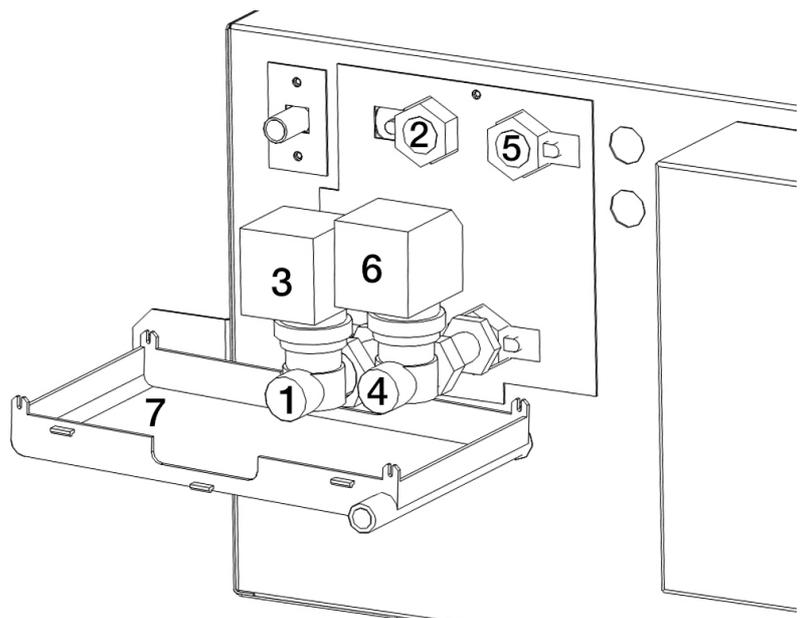
The drain tank is supplied with the cassette as standard, with no additional costs (ADPB).

1. Input for 2 pipes system or cold coil (4 pipe system)
2. Output for 2 pipes system or cold coil (4 pipe system)
3. Hot/Cold valve (2 pipes) / Cold valve (4 pipes)
4. Input for hot coil (4 pipe system only)
5. Output for hot coil (4 pipe system only)
6. Hot valve kit (4 pipe system only)
7. Auxiliary drain tank



3-way valve kit

1. Input for 2 pipes system or cold coil (4 pipe system)
2. Output for 2 pipes system or cold coil (4 pipe system)
3. Hot/Cold valve kit (2 pipes) / Cold valve kit (4 pipes system)
4. Input for hot coil (4 pipe system only)
5. Output for hot coil (4 pipe system only)
6. Hot valve kit (4 pipe system only)
7. Auxiliary drain tank



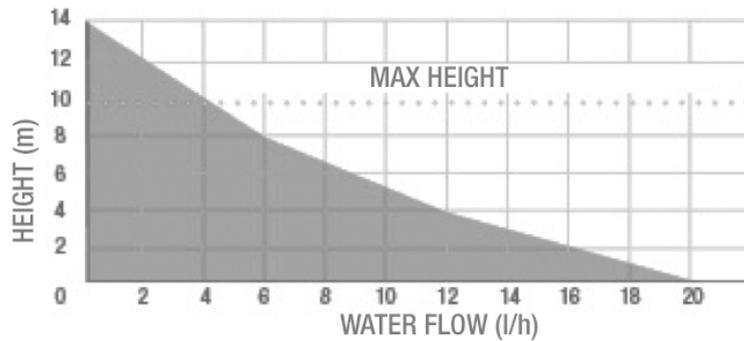
2-way valve kit

<b>VALVES FOR MAIN COILS</b>	<b>51-52-53-71-72-74-75-94</b>	<b>73-83-92-93-95</b>
<b>VALVES FOR AUXILIARY COILS</b>	<b>74-75-94-95</b>	<b>---</b>
<b>GENERAL FEATURES</b>		
Sizeconnections	1/2"	3/4"
Kv (2-way valve)	1.7	2.5
Kv (3-way valve, straight way)	1.7	2.5
Kv (3-way valve, by-pass)	1.2	1.6
Max differential pressure	2.0bar	1.0 bar
Nominal pressure	16 bar	
Water temperature	4-110°C	
<b>ON-OFF ACTUATOR</b>		
Power supply	230V-50Hz (24V-50Hz on request)	
Power consumption	2.5W	
Running time	180s	
Feature (valve + actuator) N.C.	N.C. (Usually closed)	
protection IP44	IP44	
<b>MODULAT ACTUATOR</b>		
Electricalsupply	24V-50Hz	
Powerconsumption 1.5W	1.5W	
Travel time	8S	
Control signal	0-10V	
Impedance control signal	100k	
Protection	IP43	

### 11.2- Condensate drain pump Auxiliary (PSCC-BI)

The condensate drain pump voltage is supplied assembled to the side of the box, at the side of the exhaust pipe. Inspection space on this side must be provided as well.

Maximum water flow	20 l/h
Maximum dischargeheight	10m (4l/h)
Sound pressure 1m	28dB(A)
supply	230V – 50/60Hz
Microswitch alarm	NC 8° resistivi 250V
Thermal Protection	90°C (riarmo automatico)
Protection	IP54

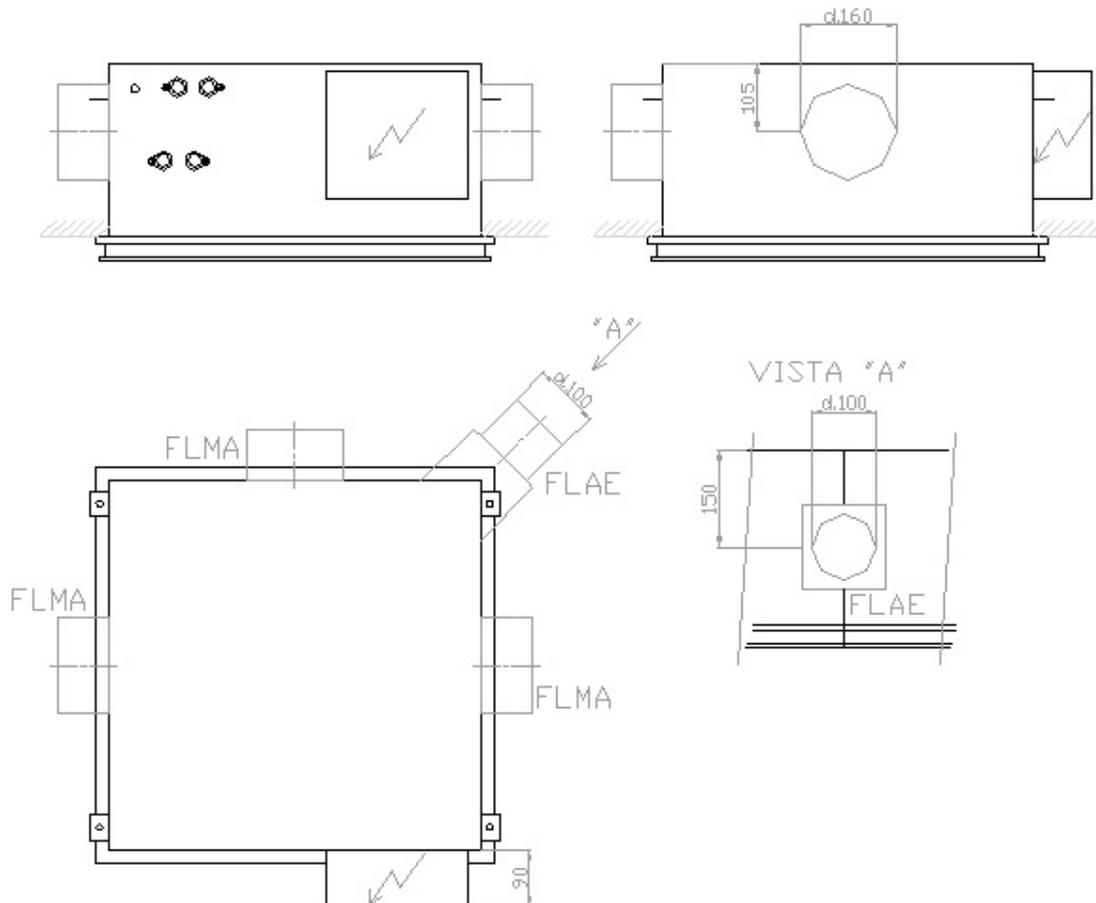


### 11.3-Flange for air delivery duct (FLMA)

You can connect up to 3 delivery ducted through D.160 collars. The available head is a function of the number of collars connected and the air flow rate. The position of each collar is represented in the figure below.

### 11.4-Flange for external air intake (FLAE).

It is possible to connect an external air intake via a D.100 collar. The maximum flow of outside air is 100m<sup>3</sup> / h. The outside air must be treated, filtered and it must not be at a low temperature.

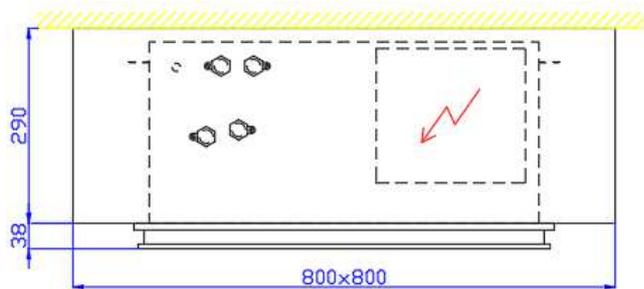


### 11.5- Metal cover for exposed installation (MECO)

The MECO accessory allows an exposed cassette to be installed when there is no false ceiling or when the existing false ceiling height is insufficient to contain it. It is made of painted sheet metal and its installation is harmonized with the cassette and its panel. The cover is easily removable on the electrical and hydraulic connection side, to allow maintenance on electric box and valves.

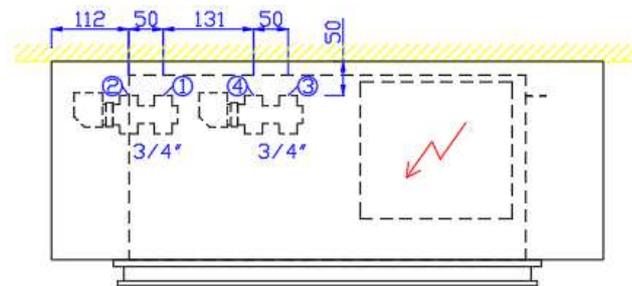
Two variations are available: one for hydraulic connections coming from the top (vertical) and one from the lateral side (horizontal) just above the ceiling. If also valve are needed, special valve kit must be ordered, this kit is optimized for easy installation, and, for horizontal version, includes flexible pipes and manual ball valve.

#### Coil Connections

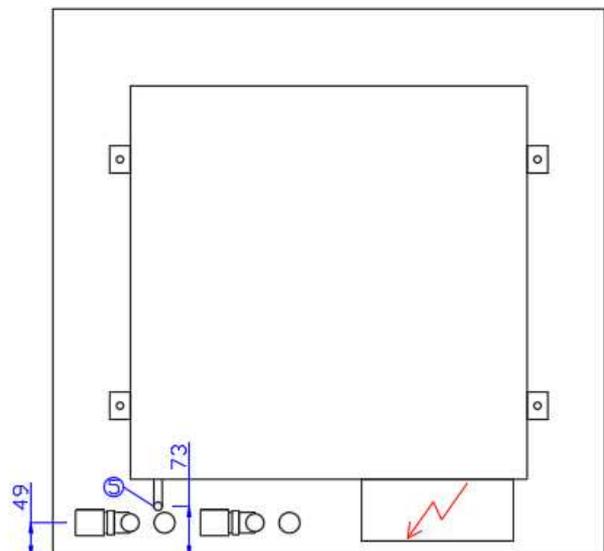
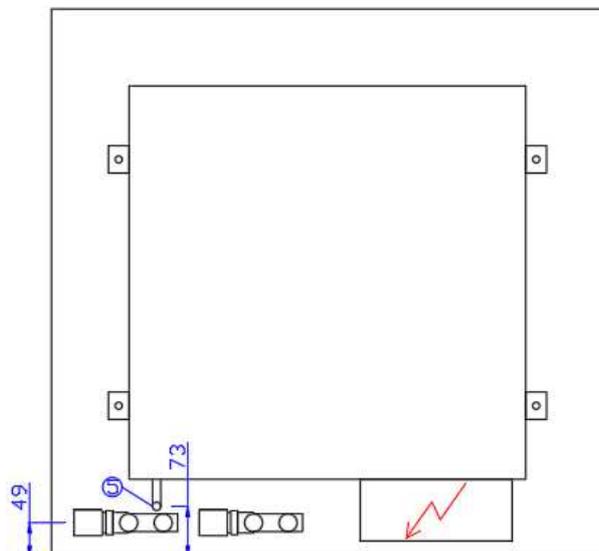
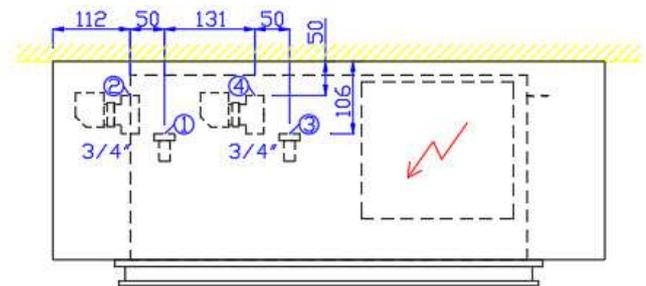


1	Main coil IN
2	Main coil OUT
3	Auxiliary coil IN
4	Auxiliary coil OUT
5	Condensate drain (d.12)

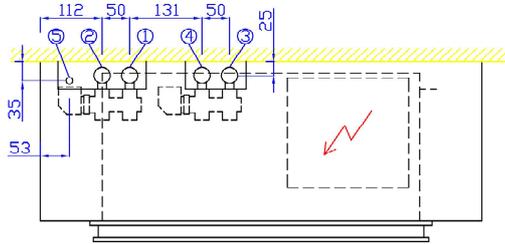
#### 4-way valve connections (vertical)



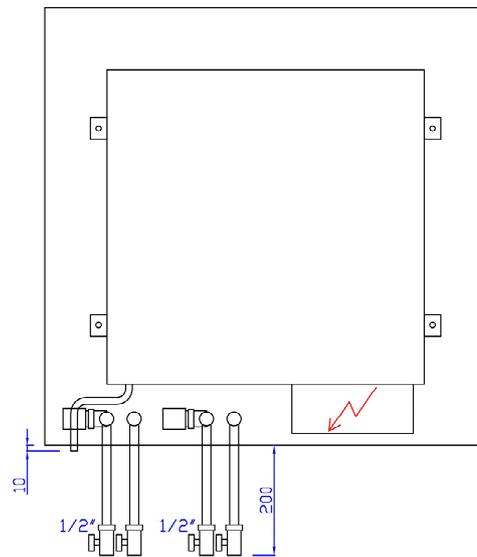
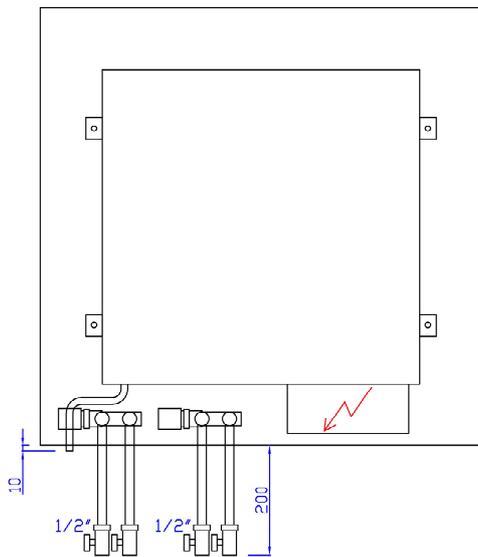
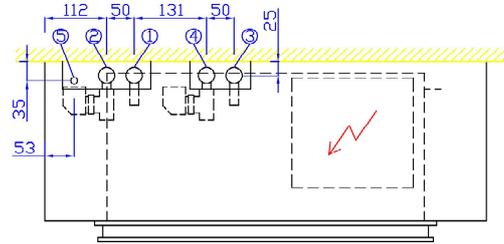
#### 2-way valve connections (vertical)



4-way valve connections (horizontal)



2-way valve connections (horizontal)



COVER CODE	DESCRIPTION	VALVE KIT CODE (*)
MECO-BRE51/93S 81	For horizontal connections –2 pipes	Valve code + “BRE51/93S 81”
MECO-BRE74/95S 81	For horizontal connections –4 pipes	Valve code + “BRE74/95S 81”
MECO-BRE51/95S 92	For vertical connections – 2/4 pipes	Valve code + “BRE51/93S 26” for 2 pipes Valve code + “BRE74/95S 26” for 4 pipes

(\*) It's possible to install inside MECO only ON/OFF valve (2 or 4 pipes) or modulating valve (only 2 pipes). It's not possible to install modulating valve for 4 pipes.

### 11.6-Filter with Sanitized treatment (FA/SAN)

Filter in synthetic material with support in galvanised steel and double galvanised mesh, thickness 6mm. The special FiltraSan treatment, developed in collaboration with Sanitized, certifies the non-proliferation of mould and bacteria:

- Staphylococcus aureus reduction : >99,99% according to JIS L 1902
- fungal growth rate: none according to EN ISO 846

The complete test reports and certifications can be obtained from our Sales department.

### 11.7-High efficiency filter (FA/H)

Filter in synthetic material, total thickness 130mm and class PF-ePM10 65%. Given its considerable size, it can be installed only in the hygienic version cassette (H). The pressure drop due to the high filtration class results in a decrease in the cassette efficiency by about 10% (with clean filter) compared to its rated performance. We also recommend using the standard filter as a pre-filter, otherwise the FA/H filter could clog very quickly.

### 11.8-Electrical heater (EH)

Armoured electrical heater, inserted inside the coil pack, available with 3-row, 2 pipe coils. The heater must be factory-installed, it cannot be ordered as an extra accessory to be retrofitted. The heater control relay and two safety thermostats are included (one manual resetting and one automatic resetting types). The presence of the electric heater inside the coil implies a decrease of about 5% of the rated cooling capacity.

	<b>53</b>	<b>73-83-93</b>
Heater power (W)	1500	3000W
Power supply	230V-1ph-50Hz	

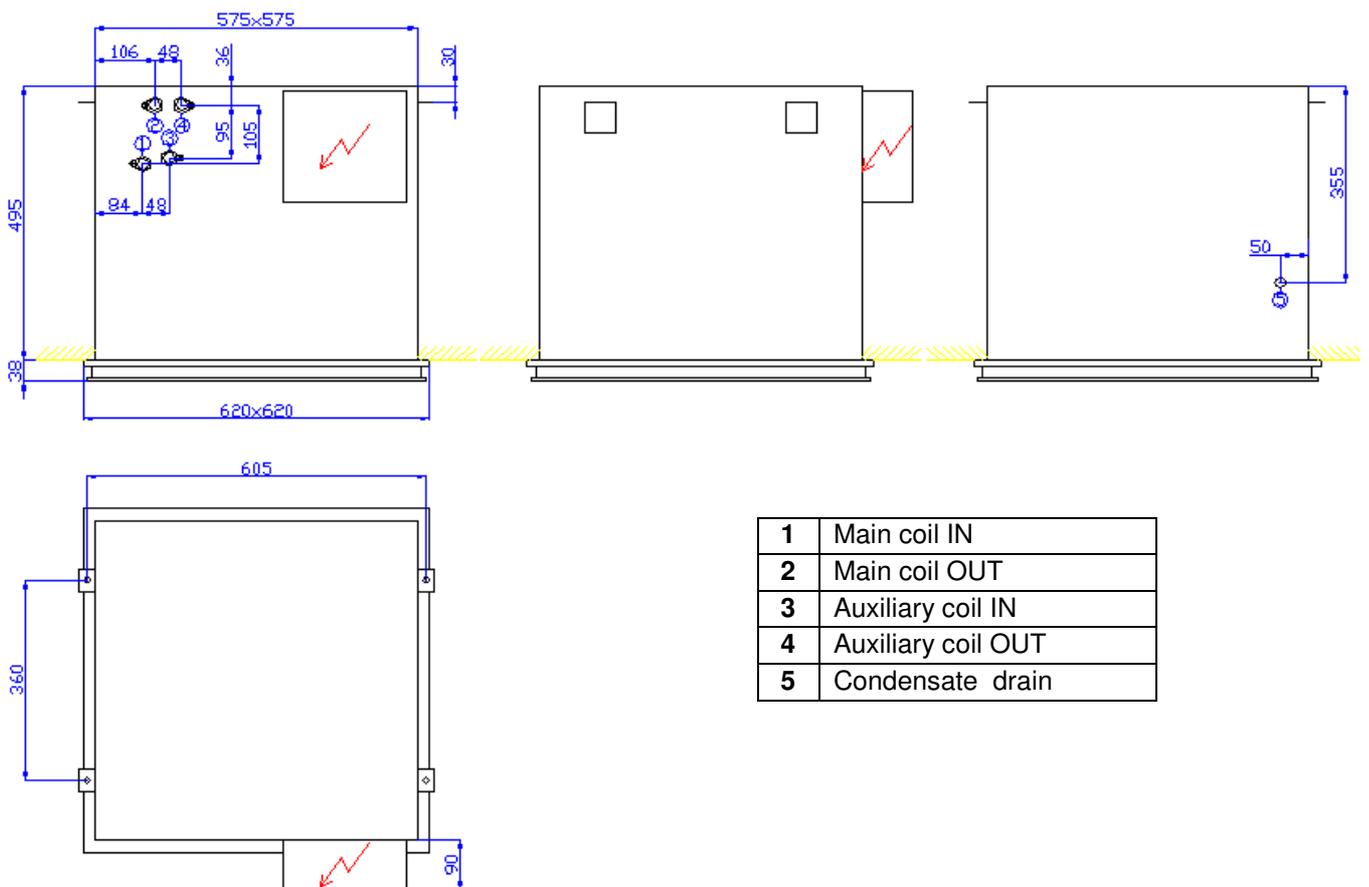
## 12-Hygienic version

The hygienic version differs from the standard version due to the absence of the condensate drain pump. Draining is achieved by gravity, so in order to have the required difference in height, the overall height of the cassette is greater.

This version is recommended in environments characterised by:

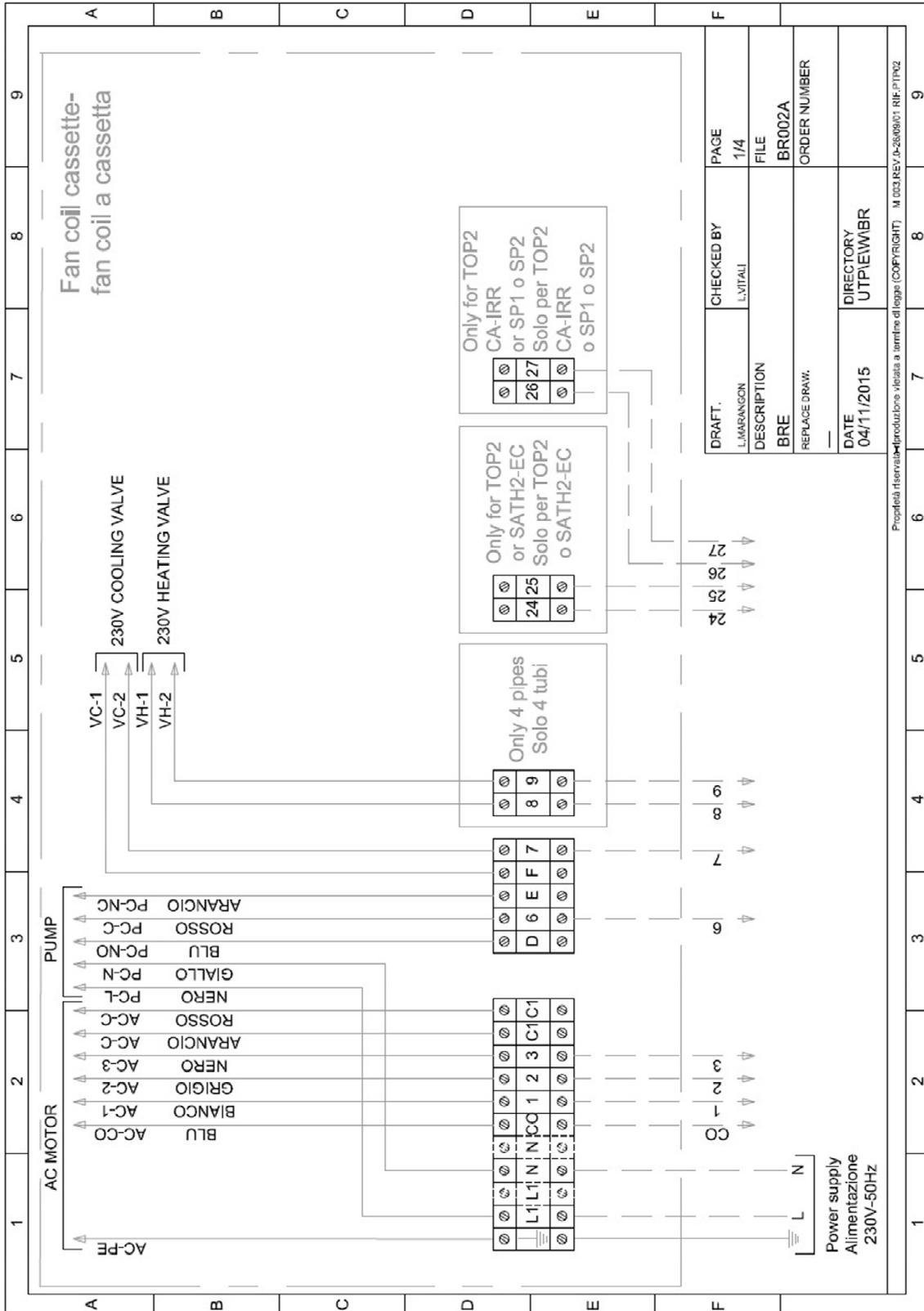
- Less frequent maintenance (banks, police offices, ...): services due to pump or pump float faults are no longer required
- Increased hygiene requirements (hospitals, health care facilities ...): water stagnation inside the tank is reduced, consequently, the chances of bacteria or mould growth are reduced.
- Silent environment requirements (libraries, ...): the (however limited) condensate drain pump operating noise is eliminated.

For a better level of hygiene, we recommend using the optional FA/SAN and/or FA/H filter cassette (see the specific paragraph)

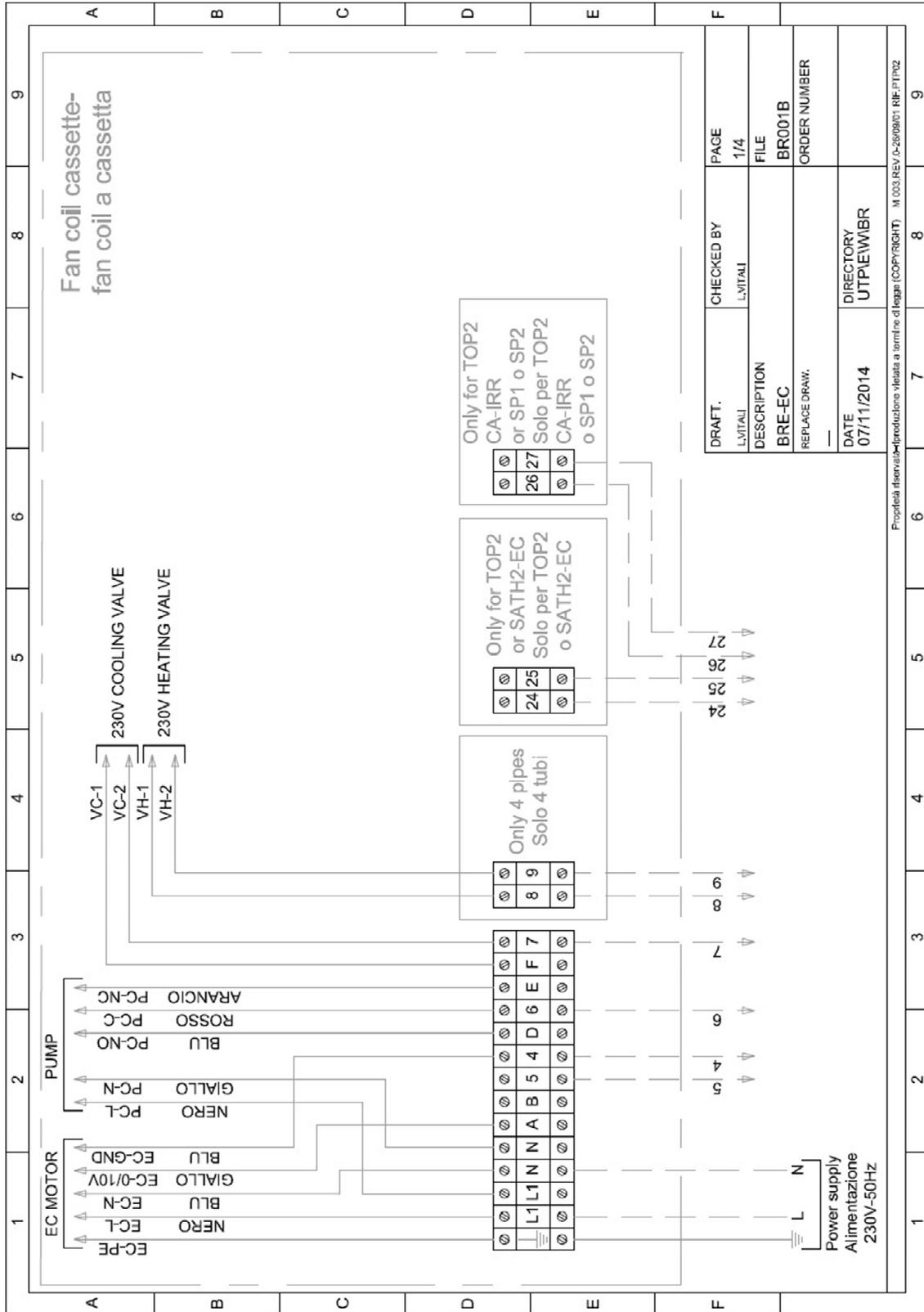


### 13- Electrical wiring diagrams

#### 13.1- Wiring diagram cassette with AC motor



## 13.2- Wiring diagram cassette with EC motor



EXTERNAL THERMOSTAT CONTROLS	
CO	Fan common (neutral)
1	Minimum fan speed (phase)
2	Medium fan speed (phase)
3	Maximum fan speed (phase)
4	GND for signal 0-10V
5	0-10V fan control signal
6	2 pipes valve common / 4 pipes cold valve common (neutral)
7	2 pipes valve signal / 4 pipes cold valve signal (phase)
8	4 pipes hot valve common (neutral) – only if present
9	4 pipes hot valve signal (phase) – only if present
24-25	NTC water probe – only if present
26-27	NTC air probe – only if present

## NOTES:

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

Aertesi srl reserves the right to introduce at any time whatever modifications deemed necessary to improve the product with possible modification of the relevant technical data.



something different

AER.MT.BRE.GB.006.07.19

**Aertesi srl**

viale della tecnica, 6/a  
35026 Conselve (PD) ITALY

t. +39.049.9501109

f. +39.049.9500823

[www.aertesi.com](http://www.aertesi.com)

[info@aertesi.com](mailto:info@aertesi.com)