

Cassette fan coils with EC motor

## ACQVARIA i 3 – 10 kW



EC Motor



2 pipes systems



4 pipes systems



Recess ceiling-mount

### PLUS

- » GreenTech Technology
- » Permanent magnet EC motor insures a precise, continuous control of operation
- » Low energy consumption
- » Fresh air with direct or mixed introduction
- » Condensate drainage pump for height differences of up to 0.9 m
- » Reduced installation and commissioning time

### AVAILABLE VERSIONS

In addition to the 2 ABS grilles with adjustable fins it is available EFFETTO and EFFETTO AirClissi.

EFFETTO, module for intake and diffusion air with the Coandă effect

EFFETTO Airclissi, new design concept which integrates light with the Coandă effect air diffusion.



Grey - natural brushed aluminium

White - RAL 9010

Black - black RAL 9005

EFFETTO



Neutral light

EFFETTO + AirClissi

Comfort, low noise, and efficiency in perfect harmony!

The new series of hydronic cassette units ACQVARIA i, with inverter-controlled permanent magnet EC motor, consists of six models for 2-pipe systems (10-20-30-40-50-60) and five models for 4-pipe systems (10-30-35-40-60). The engineering of the unit makes it possible to develop up to 5 kW in the cooling mode in a standard 600x600 mm modular suspended ceiling and over 10 kW in the 860x860 mm modularity, with exceptionally low noise levels in the phases for maintaining interior comfort.

The well-known advantages of EC motors are combined with GreenTech technology (in models 10, 20, 30 and 35), which integrates the inverter directly into the fan drive assembly.

ACQVARIA i leverages the entire Galletti, MYCOMFORT, EVO, and TED10 microprocessor controller platform that incorporate sophisticated adjustment logics based on air temperature, air humidity, and water temperature.

These benefits translate into greater accuracy in achieving and maintaining the desired comfort conditions through appropriate modulation of the fan speed as well as the reduction of noise emissions, which adapt to the actual thermal load.

Lastly, electricity consumption is reduced by up to 75% in comparison to conventional fixed-speed AC motors.

The suspended ceiling unit houses all the components, heat exchange coil, fan drive assembly, and condensate collection and drainage system. Its structure is designed for introducing fresh air into the space, mixing it with recovered air, and distributing the treated air from the cassette unit to adjacent rooms.

The design and colour, RAL9003 or RAL9010, of the air intake and diffusion louvre guarantee optimal integration into the suspended ceiling panels. Easy access to the air filter for cleaning operations.

The unit can be supplied complete with valves, including pressure-independent balancing and control valves, the use of which significantly reduces commissioning time.

## MAIN COMPONENTS

### Structure

Made of galvanised steel sheet with internal polyurethane foam coating and external flocked PES to guarantee heat and sound insulation. Fresh air can be introduced into the room directly through the unit due to the provision of connections for neutral or mixed introduction. Accessories are available for connection to ducts. There are systems on the unit for anchoring it to the ceiling. The electrical wiring is housed in a containment box and is easily accessible from the side for easy connection



### Heat exchanger

Copper pipe and high efficiency aluminium fins secured to the pipe by mechanical expansion. With at least two rows in the models for 2-pipe systems, it is available in the 2+1 configuration in the models for 4-pipe systems. The coil comes complete with manual air vent valves. On request, valves can be connected to the coil to regulate and balance the operation of the unit.

### Fan drive assembly

Inverter-controlled permanent magnet EC electric motor (integrated in the Greentech models) directly connected to a centrifugal fan with backward-curving blades with profile optimised for stable operation at all speeds.

### Air filter

Honey-comb polypropylene washable air filter, easily removable for maintenance operations.

### Condensate collection and drainage system

Located under the heat exchanger, the main drip tray is made of polystyrene and is inserted inside the profiles optimised for the distribution of air in the space. The condensate drainage pump is able to raise the condensate up to 0.9 m from the exit point from the unit. The operation of the pump is controlled by a float switch with three levels of action that activate it, stop it and, if the critical level is exceeded, stop the operation of the cassette unit fan and close the water valve. The supply is completed by the auxiliary water drip tray for the collection of condensate from the regulating valves.

### Louvre

It is square shaped for the intake and diffusion of air in the space, and it is made of ABS, colour RAL9003 or RAL9010. The air intake louvre can be opened for access to the air filter. Air is diffused in the space through the 4 sides, each of which is equipped with an adjustable fin with suitable thermal insulation.

Also available from today the new aluminium design module EFFETTO for intake and diffusion air with the Coandă effect.



### Control mode

Galletti renews the fan coil control modes by integrating, on the EVO platform, the new EVO-2-TOUCH user interface and the NAVEL device for management with a smartphone.



### EVO-2-TOUCH

is a user-friendly user interface with a 2.8" capacitive display with built-in temperature and humidity probes.

### NAVEL

is the device paired with EVOBOARD that makes possible Wi-Fi or Bluetooth communication with a smartphone containing GALLETTI APP (available for iOS and Android).

## ACCESSORIES

### Electronic microprocessor control panels with display

<b>DIST</b>	MY COMFORT controller spacer for wall mounting
<b>EVO-2-TOUCH</b>	2.8" touch screen user interface for EVO control
<b>EVOBOARD</b>	Circuit board for EVO control
<b>EVO DISP</b>	User interface with display for EVO controller
<b>EYNAVEL</b>	Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone
<b>MCLE</b>	Microprocessor control with display MY COMFORT LARGE
<b>MCSUE</b>	Humidity sensor for MY COMFORT (medium e large), EVO
<b>MCSWE</b>	Water sensor for MYCOMFORT and EVO controllers
<b>Electronic microprocessor control panels</b>	
<b>TED 10</b>	Electronic controller for BLDC fan equipped with inverter and ON/OFF valves 230 V

<b>TED SWA</b>	Water temperature sensor for TED controls
<b>Valves</b>	
<b>PIC-AQ</b>	PRESSURE-INDEPENDENT 2-way valves
<b>V2-AQ</b>	2-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for model with 1 or 2 heat exchangers
<b>V3-AQ</b>	3-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for model with 1 or 2 heat exchangers
<b>Plenum, air intake modules, air inlet and outlet connectors and cabinets</b>	
<b>BAR</b>	Spigot for introduction of mixed renewal air
<b>MOB</b>	Cabinet for cassette
<b>PAR</b>	Plenum for introduction of unmixed renewal air
<b>PMAA</b>	Air outlet plenum

# Cassette units ACQVARIA i

## RATED TECHNICAL DATA 2 PIPES

ACQVARIA i			AQ10QIB0				AQ20QIB0				AQ30QIB0			
				min	med	max		min	med	max		min	med	max
Speed			1	2	3	4	1	2	3	4	1	2	3	4
Control voltage		V	2,00	2,50	3,00	6,00	2,00	2,60	5,50	8,00	2,00	4,00	6,50	10,0
Total cooling capacity	(1)(E)	kW	1,62	2,15	2,35	3,21	1,62	2,19	3,40	4,47	1,54	2,76	3,95	5,23
Sensible cooling capacity	(1)(E)	kW	1,13	1,54	1,56	2,47	1,11	1,48	2,54	3,54	1,05	1,98	2,96	4,11
FCEER class	(E)		A				A				A			
Water flow	(1)	l/h	279	371	405	555	280	378	584	775	264	473	678	898
Water pressure drop	(1)(E)	kPa	6	10	10	16	4	7	15	22	3	9	18	29
Heating capacity	(2)(E)	kW	1,65	2,07	2,30	3,61	1,54	2,10	3,48	4,58	1,47	2,77	4,09	5,55
FCCOP class	(E)		A				A				B			
Water flow	(2)	l/h	286	355	395	621	267	361	605	797	255	481	711	965
Water pressure drop	(2)(E)	kPa	5	7	8	12	3	6	13	21	3	8	16	27
Rated air flow		m <sup>3</sup> /h	212	264	305	583	200	270	551	796	190	397	650	980
Power input	(E)	W	5	5	6	18	7	5	15	37	7	9	22	67
Total sound power level	(3)(E)	dB(A)	35	37	41	52	35	37	44	56	29	38	49	61

ACQVARIA i			AQ40QIB0				AQ50QIB0				AQ60QIB0			
			min	med	max		min	med	max		min	med	max	
Speed			1	2	3	4	1	2	3	4	1	2	3	4
Control voltage		V	2,00	3,00	5,00	10,0	2,00	3,00	5,00	8,00	2,00	4,00	6,50	10,0
Total cooling capacity	(1)(E)	kW	4,80	5,36	6,39	8,27	5,17	5,92	7,26	9,01	5,26	6,70	8,37	10,5
Sensible cooling capacity	(1)(E)	kW	3,80	3,92	4,75	6,35	3,66	4,24	5,31	6,78	3,69	4,80	6,15	7,97
FCEER class	(E)		A				A				B			
Water flow	(1)	l/h	833	921	1097	1420	888	1015	1245	1545	902	1150	1436	1805
Water pressure drop	(1)(E)	kPa	12	16	21	34	10	13	18	27	10	15	22	33
Heating capacity	(2)(E)	kW	5,50	6,00	7,30	9,74	5,43	6,33	7,99	10,2	5,48	7,23	9,35	12,2
FCCOP class	(E)		A				B				B			
Water flow	(2)	l/h	953	1043	1269	1692	944	1100	1390	1779	952	1257	1625	2116
Water pressure drop	(2)(E)	kPa	3	16	23	38	9	12	19	29	9	15	23	36
Rated air flow		m <sup>3</sup> /h	843	978	1276	1916	724	864	1143	1554	710	976	1321	1831
Power input	(E)	W	14	18	36	150	14	18	36	93	14	25	60	150
Total sound power level	(3)(E)	dB(A)	35	39	45	57	35	39	48	53	36	43	50	58

(1) Water temperature 7°C/12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) according to EN1397:2021

(2) Water temperature 45°C / 40°C, air temperature 20°C

(3) Sound power measured according to standards ISO 3741 and ISO 3742

(E) EUROVENT certified data

Power supply 230-1-50 (V-ph-Hz)

**RATED TECHNICAL DATA 4 PIPES**

ACQVARIA i			AQ10QIBB				AQ30QIBB				AQ35QIBB			
			min	med	max		min	med	max		min	med	max	
Speed			1	2	3	4	1	2	3	4	1	2	3	4
Control voltage		V	2,00	3,50	4,50	6,00	2,00	2,50	4,80	10,0	2,00	4,00	6,50	10,0
Total cooling capacity	(1)(E)	kW	1,24	1,85	2,18	2,60	1,50	2,00	3,13	4,41	2,34	3,03	3,83	5,01
Sensible cooling capacity	(1)(E)	kW	0,92	1,46	1,79	2,23	1,05	1,15	2,25	3,58	1,49	2,17	2,79	3,98
FCEER class DF	(E)		A				A				A			
Water flow	(E)	l/h	213	317	374	447	264	344	539	759	403	521	659	862
Water pressure drop	(E)	kPa	2	4	6	8	3	7	13	25	4	6	10	17
Heating capacity	(2)(E)	kW	2,03	2,90	3,34	3,86	2,00	3,70	4,26	5,51	1,92	2,39	2,88	3,43
FCCOP class	(E)		A				A				B			
Water flow	(2)	l/h	178	254	292	338	178	318	367	474	165	206	248	295
Water pressure drop	(2)(E)	kPa	3	6	8	11	3	5	7	11	4	5	10	16
Rated air flow		m <sup>3</sup> /h	199	356	460	610	190	242	454	982	195	395	643	982
Power input	(E)	W	7	7	8	18	7	5	12	67	7	9	22	67
Total sound power level	(3)(E)	dB(A)	28	35	40	48	30	36	46	61	29	38	49	61

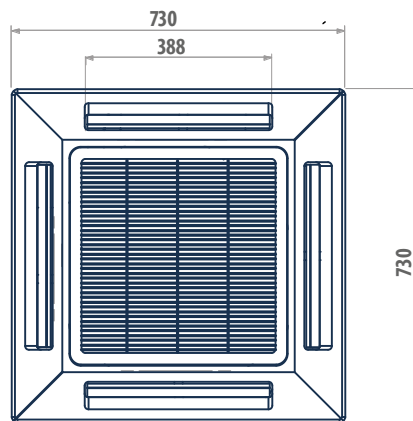
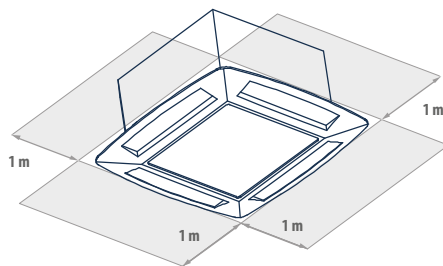
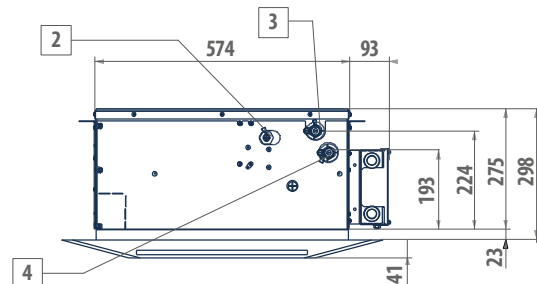
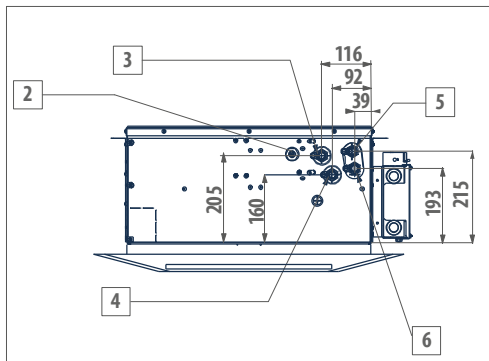
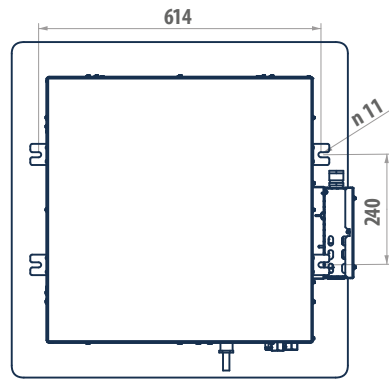
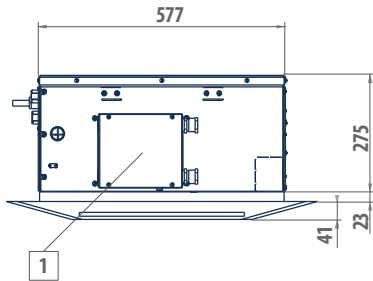
ACQVARIA i			AQ40QIBB				AQ60QIBB							
			min	med	max		min	med	max		min	med	max	
Speed			1	2	3	4	1	2	3	4	1	2	3	4
Control voltage		V	2,00	3,00	5,00	10,0	2,00	4,00	6,50	10,0	2,00	4,00	6,50	10,0
Total cooling capacity	(1)(E)	kW	4,61	5,34	6,61	9,07	4,70	6,09	7,62	9,50	4,70	6,09	7,62	9,50
Sensible cooling capacity	(1)(E)	kW	3,34	3,94	5,03	7,29	3,37	4,50	5,82	7,56	3,37	4,50	5,82	7,56
FCEER class DF	(E)		A				B							
Water flow	(E)	l/h	792	917	1135	1555	806	1045	1307	1631	806	1045	1307	1631
Water pressure drop	(E)	kPa	12	15	22	37	11	17	25	37	11	17	25	37
Heating capacity	(2)(E)	kW	7,01	7,96	9,53	12,3	7,15	8,96	10,8	12,9	7,15	8,96	10,8	12,9
FCCOP class	(E)		A				B							
Water flow	(2)	l/h	613	697	834	1078	626	785	947	1133	626	785	947	1133
Water pressure drop	(2)(E)	kPa	11	14	19	30	12	18	24	33	12	18	24	33
Rated air flow		m <sup>3</sup> /h	687	841	1137	1823	673	956	1314	1823	673	956	1314	1823
Power input	(E)	W	14	18	36	150	14	25	60	150	14	25	60	150
Total sound power level	(3)(E)	dB(A)	35	39	45	57	36	43	50	58	36	43	50	58

- (1) Water temperature 7°C/12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) according to EN1397:2021  
 (2) Water temperature 65°C / 55°C, air temperature 20°C  
 (3) Sound power measured according to standards ISO 3741 and ISO 3742  
 (E) EUROVENT certified data  
 Power supply 230-1-50 (V-ph-Hz)

# Cassette units ACQVARIA i

## DIMENSIONAL DRAWINGS

ACQVARIA i 10-20-30 (for 2 pipes) - 10-30-35 (for 4 pipes)



### LEGEND

- |   |   |
|---|---|
| 1 | Electrical cable passage                      |
| 2 | Condensate discharge $\varnothing$ 10         |
| 3 | Water outlet $\varnothing$ 1/2" female gas    |
| 4 | Water inlet $\varnothing$ 1/2" female gas     |
| 5 | Water outlet $\varnothing$ 1/2" DF female gas |
| 6 | Water inlet $\varnothing$ 1/2" DF female gas  |

NOTE It is possible to combine the EFFETTO and EFFETTO AirCissi module with the ACQVARIA i 60x60 cm cassette, for the dimensional drawing refer to page 85

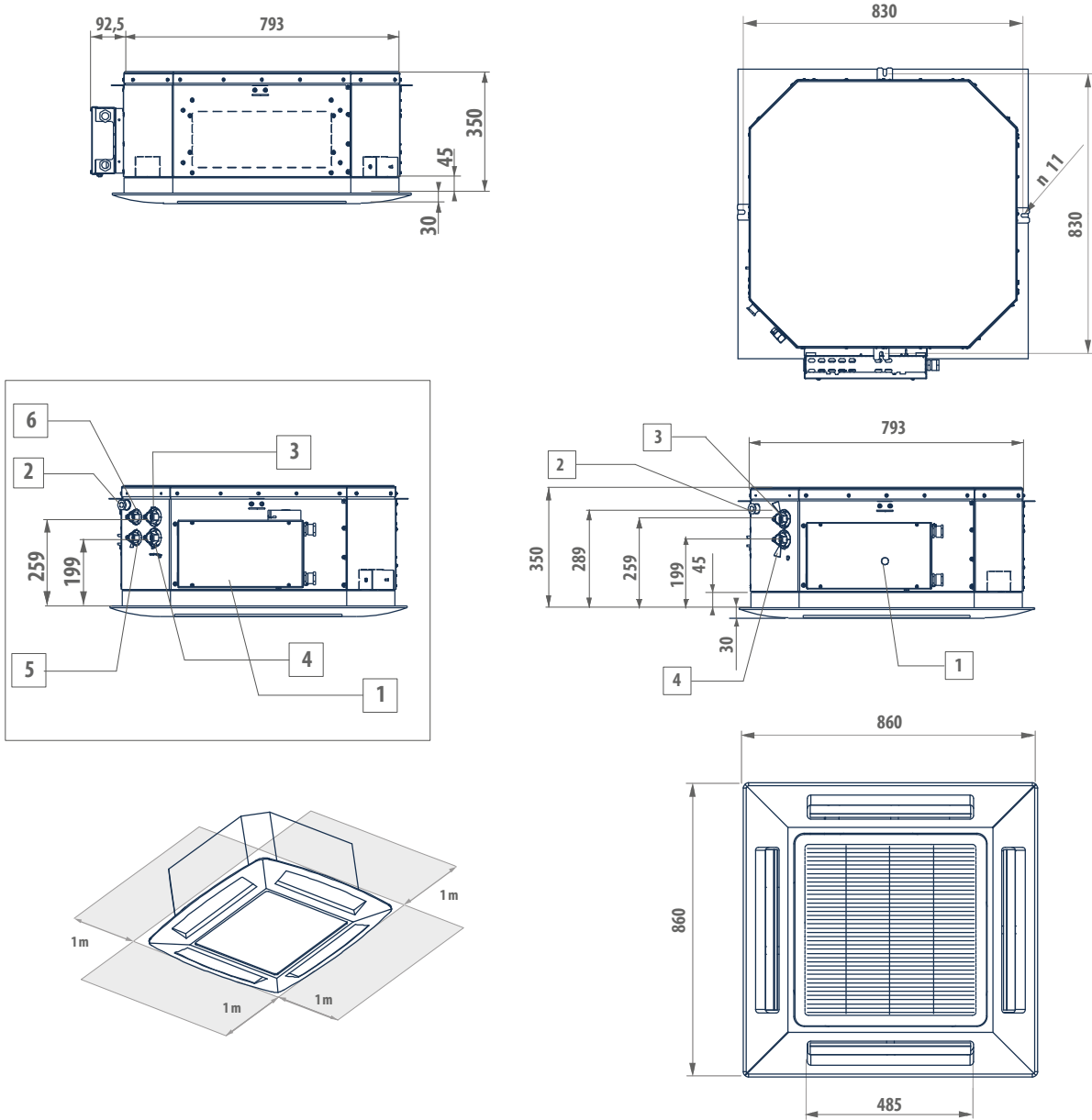
ACQVARIA i



kg

AQ10QIB0 - AQ10QIBB 23 + 2,5

AQ20QIB0 - AQ30QIB0 - AQ30QIBB - AQ35QIBB 24 + 2,5

**DIMENSIONAL DRAWINGS**
**ACQVARIA i 40, 50, 60 (Size 50 not available for dual coil version)**


Mod.	kg
AQ40QIB0	42 + 5
AQ50QIB0	43 + 5
AQ60QIB0	43 + 5
AQ40QIBB	42 + 5
AQ60QIBB	43 + 5

**LEGEND**

1	Electric box
2	Condensate discharge $\varnothing$ 10
3	Water outlet $\varnothing$ 3/4" female gas
4	Water inlet $\varnothing$ 3/4" female gas
5	Water inlet $\varnothing$ 1/2" DF female gas
6	Water outlet $\varnothing$ 1/2" DF female gas

Cassette units - ACQVARIA i