



Fan coil units with centrifugal fan and EC motor

ESTRO i 1 - 9 kW



EC motor



2 pipes systems



4 pipes systems



Vertical installation



Centrifugal fan



Horizontal installation

Energy savings and comfort in a single solution

The continual innovation that characterizes the design of ESTRO has resulted in fan assemblies with invertercontrolled permanent magnet EC motors.

The use of this type of motor makes it possible to achieve a major reduction in power consumption, better perceived comfort in terms of temperature and humidity. Analyses and verifications have shown a reduction in consumption of no less than 70% with integrated operation compared to traditional AC motors, with a corresponding reduction in CO₂ emissions.

The DC Inverter technology allows to continuously adjust the air flow to the actual needs of the environment by considerably reducing the fluctuations in room temperature that are typical of step-by-step adjustments. The continuous modulation of air flow brings about an adjustment in the delivered heating capacity, so that the interior is brought quickly to the set conditions and the noise levels are exceptionally low while they are being maintained.

ESTRO i fan coil units MYCOMFORT LARGE and EVO microprocessor control panels, which, thanks to the analogue outputs and refined adjustment logics, perfectly control the operation of the EC motors and modulating valves.

PLUS

- » Inverter-controlled EC motor
- » Low energy consumption
- » Modulating operation
- » Extremely quiet operation
- » Heat exchanger up to 4 rows



AVAILABLE VERSIONS

ESTRO FL i	Wall mounted with cabinet
ESTRO FA i	Wall recess mounted with cabinet
ESTRO CL i	Wall mounted with cabinet
ESTRO FU i	Floor and ceiling mounted with cabinet
ESTRO FP i	Ceiling mounted with cabinet
ESTRO FB i	Floor and ceiling mounted with low cabinet

ESTRO FC i	Vertical / horizontal recess mounted with rear air intake
ESTRO FF i	Vertical / horizontal recess mounted with front air intake
ESTRO FBC i	Vertical / horizontal recess mounted with low cabinet and front air intake

MAIN COMPONENTS

Cabinet

Composed of a painted steel sheet panel, side panels, air outlet grille (swinging by 180°) and back suction grille built from ABS.

Structure

Built from galvanised steel sheet of extra thickness, heat and sound insulated by means of Class 1 self-extinguishing panels. FUi – FBi – FCi – FFi and FBCi versions are suitable for either vertical or horizontal installation thanks to the dual condensate collection and drainage system.

Heat exchanger

High efficiency heat exchanger made with copper piping and aluminium fins, provided with brass manifolds and vent valve. The water connections are reversible at the time of installation. On request it is possible to mount an additional heat exchanger for 4-pipe systems.

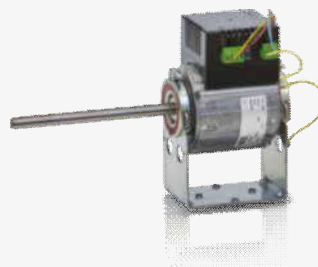


Fans

Double suction centrifugal fans, statically and dynamically balanced, manufactured from anti-static ABS, with blades having an airfoil section and offset modules. The fans are housed in a low-noise ABS volute with high-efficiency profile.

EC electric motor

Permanent magnet motor. The unit is equipped with an inverter board to control the motor, that makes it possible to precisely set the maximum rotation speed of the motor (control signal 0-10 V).



Air filter

Honey-comb polypropylene washable air filter, easily removable for maintenance operations. On FUi and FBi versions the air filters are fitted onto the air inlet grille.

ACCESSORIES

Electronic microprocessor control panels with display

DIST	MY COMFORT controller spacer for wall mounting
EVO-2-TOUCH	2.8" touch screen user interface for EVO control
EVOBOARD	Circuit board for EVO control
EVODISP	User interface with display for EVO controller
EYNAVEL	Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone
KBE	MY COMFORT on-board installation kit
MCLE	Microprocessor control with display MY COMFORT LARGE
MCSUE	Humidity sensor for MY COMFORT (medium e large), EVO
MCSWE	Water sensor for MYCOMFORT and EVO controllers

Electronic microprocessor control panels

KB A	On-board ESTRO FA installation kit suitable for TED controller
KB LDX	On-board ESTRO FL/FU/FB installation kit on the right side suitable for TED controller
KB LSX	On-board ESTRO FL/FU/FB installation kit on the left side suitable for TED controller
TED 10	Electronic controller for EC fan equipped with inverter and ON/OFF valves 230 V
TED SWA	Water temperature sensor for TED controls

Power interface and regulating louver controllers

CSB	On-board controller for opening and closing the motor-driven regulating louver
CSD	Recess mounted controller for opening and closing the SM motor-driven regulating louver

Additional heat exchanger for 4-pipe systems

DF	1-row additional heat exchanger for 4-pipe systems (not suitable for ESTRO "M" models)
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Auxiliary water drip trays, insulating shell, condensate drainage pump

BH	Auxiliary water drip tray for horizontal installation fan coil units
BV	Auxiliary water drip tray for vertical installation fan coil units
GIVKL	Insulating shell for VKS valve, water connections on the left
GIVKR	Insulating shell for VKS valve, water connections on the right
KSC	Condensate drainage pump kit

Base and enclosure elements

ZA	Pair of support covering elements with front grille for ESTRO FA
ZAG	Pair of support covering elements for ESTRO FA
ZC	Pair of support covering elements for ESTRO CL

ZCG	Pair of support covering elements for ESTRO CL
ZL	Pair of support covering elements for ESTRO FL
ZLG	Pair of support covering elements with front grille for ESTRO FL

Rear covering panels

PH	Rear painted panel for horizontal installation with cabinet
PV	Rear painted panel for vertical installation with cabinet

Air inlet and outlet grilles

GE	Aluminium external air intake grille with subframe
GEF	Aluminium external air intake grille with subframe and air filter
GM	Aluminium air outlet grille with 2-row fins and subframe
RGC	Plenum with circular collars for air outlet grille

Plenum and connectors

RA90	Angular inlet connector
RAD	Straight inlet connector
RADC	Air inlet plenum with circular collars
RM90	Angular outlet connector
RM90C	Angular outlet insulated connector
RMCD	Straight outlet insulated connector
RMCD C	Air outlet plenum with circular collars
RMD	Straight outlet connector

External air intake louvers

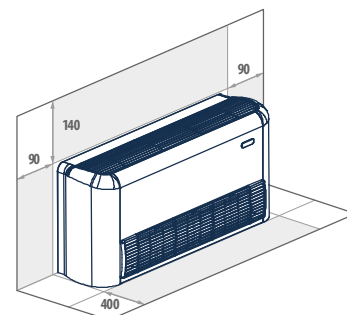
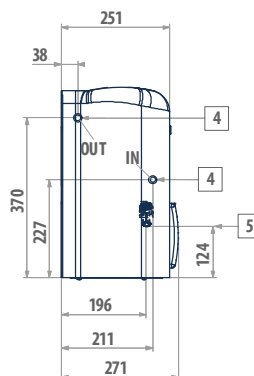
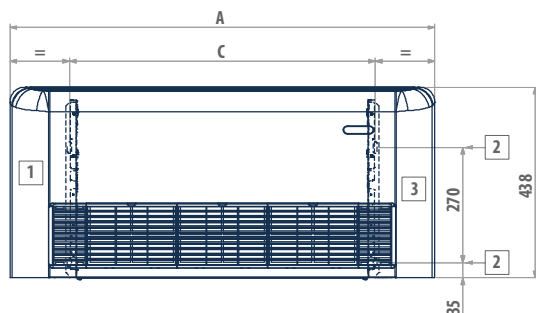
SM	Motor-driven louver, with motor on the right with transformer
SM	Motor-driven louver, with motor on the left with transformer
SM	Motorized air intake louver
SMC	Motor driven louver, with motor on the right, with transformer
SMC	Motor driven louver, with motor on the left, with transformer

Valves

KV	2-way valve, ON/OFF actuator, hydraulic kit on water connection side for main heat exchanger
KVM	2-way valve, MODULATING actuator, 24 V power supply, hydraulic kit on water connection side for main heat exchanger
VPI C	2-way valves pressure independent, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger

DIMENSIONAL DRAWINGS

ESTRO FB



LEGEND

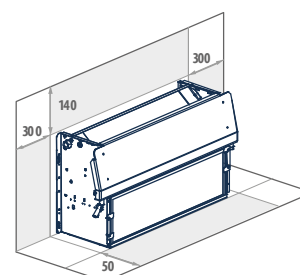
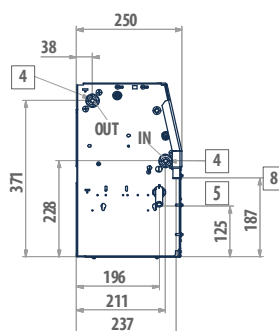
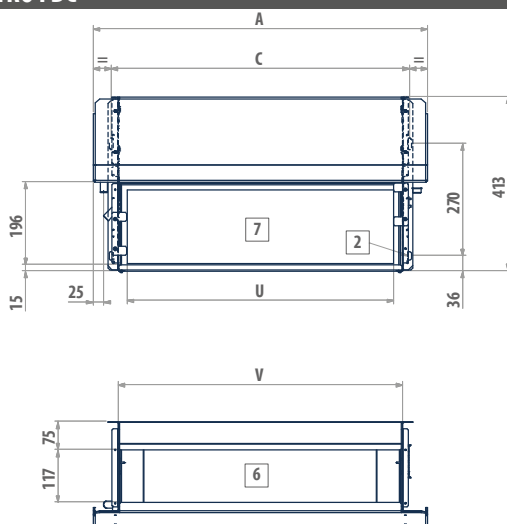
- 1 Usable space for plumbing connections
- 2 Slots for installation on the wall
- 3 Usable space for electrical connections
- 4 Standard heat exchanger water connections
- 5 Condensate drainage

ESTRO FB	1	2	3	4	5	6	7	8	9
ON/OFF motor (3 speed)	x	x	x	x	x	x	x	x	x
ON/OFF motor (6 speed)	x	-	x	x	x	x	x	x	x
Inverter-controlled motor	x	-	x	x	x	x	x	x	x

x = available

ESTRO	A mm	C mm	4 "	5 mm	kg
1 - 2 - 3 - 4	774	498	1/2	16	19
5 - 6	984	708	1/2	16	28
7 - 8 - 9	1194	918	1/2	16	29

ESTRO FBC



LEGEND

- 2 Slots for installation on the wall
- 4 Standard heat exchanger water connections
- 5 Condensate drainage vertical installation
- 6 Air outlet
- 7 Air intake
- 8 Condensate drainage horizontal installation

ESTRO FBC	1	2	3	4	5	6	7	8	9
ON/OFF motor (3 speed)	x	x	x	x	x	x	x	x	x
ON/OFF motor (6 speed)	x	-	x	x	x	x	x	x	x
Inverter-controlled motor	x	-	x	x	x	x	x	x	x

x = available

ESTRO FBC	A mm	C mm	U mm	V mm	4 "	5 mm	kg	kg
1	584	498	423	464	1/2	16	14.5	16
2 - 3 - 4	584	498	423	464	1/2	16	15.5	16
5	794	708	633	674	1/2	16	19	20
6	794	708	633	674	1/2	16	20	20
7 - 8	1004	918	843	884	1/2	16	24	25
9	1004	918	843	884	1/2	16	24.5	25