



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
ESTRO FA i

Wall mounted with cabinet
Wall recess mounted with cabinet

ESTRO FU i
ESTRO FC i

Floor and ceiling mounted with cabinet
Vertical / horizontal recess mounted with rear air intake

MAIN COMPONENTS

Cabinet

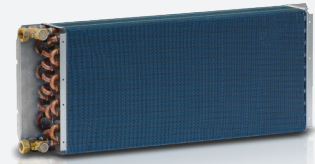
Composed of a painted steel sheet panel, side panels, air outlet grille (swinging by 180°) and back suction grille built from ABS.

Structure

Built from galvanised steel sheet of extra thickness, heat and sound insulated by means of Class 1 self-extinguishing panels. FUI and FCi 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.

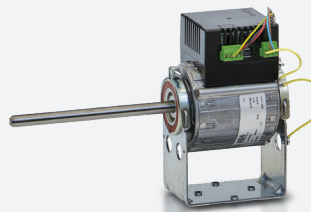


Fans

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 version the air filters are fitted onto the air inlet grille.

ACCESSORIES

Electronic microprocessor control panels with display

DIST	MYCOMFORT controller spacer for wall mounting
EVO-2-TOUCH	2.8" touch screen user interface for EVO control
EVOBOARD	Circuit board for EVO control
EVO DISP	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 MYCOMFORT LARGE
MCSUE	Humidity sensor for MYCOMFORT LARGE and 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 L DX	On-board ESTRO FL/FU/FB installation kit on the right side suitable for TED controller
KB L SX	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

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
VPIC	2-way valves pressure independent, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger

2 PIPES - RATED TECHNICAL DATA

ESTRO i			1			3			4			4M		
Speed			min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	(E)	V	4,00	5,30	6,50	5,20	6,90	8,40	5,20	6,90	8,40	5,20	6,90	8,40
Total cooling capacity	(1)(E)	kW	0,77	0,91	1,14	1,25	1,51	1,72	1,35	1,69	1,94	1,49	1,84	2,22
Sensible cooling capacity	(1)(E)	kW	0,59	0,69	0,86	0,94	1,13	1,28	1,04	1,30	1,49	1,05	1,31	1,58
FCEER class	(E)		B											
Water flow	(2)	l/h	133	157	196	215	260	296	232	291	334	257	317	382
Water pressure drop	(2)(E)	kPa	4	5	7	8	11	14	7	10	13	10	14	20
Heating capacity	(3)(E)	kW	0,95	1,11	1,32	1,45	1,72	1,84	1,50	1,81	2,15	1,53	1,88	2,29
FCCOP class	(E)		C			B			B			C		
Water flow	(3)	l/h	164	191	227	250	296	317	258	312	370	263	324	394
Water pressure drop	(3)(E)	kPa	5	6	8	9	12	14	6	9	12	9	12	17
Rated air flow		m³/h	149	189	231	211	271	344	211	271	344	211	271	344
Power input	(E)	W	6	8	9	7	9	19	7	9	19	9	12	24
Total sound power level	(4)(E)	dB(A)	30	32	40	38	44	49	40	44	50	41	45	51

ESTRO i			5			6			6M			7		
Speed			min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	(E)	V	3,80	5,70	7,30	3,80	5,70	7,30	3,80	5,70	7,30	3,60	5,40	8,00
Total cooling capacity	(1)(E)	kW	1,59	2,02	2,40	1,75	2,37	2,91	1,92	2,63	3,27	1,97	2,62	3,49
Sensible cooling capacity	(1)(E)	kW	1,17	1,56	1,86	1,25	1,69	2,09	1,32	1,82	2,28	1,44	2,03	2,73
FCEER class	(E)		A			A			A			C		
Water flow	(2)	l/h	274	348	413	301	408	501	331	453	563	339	451	601
Water pressure drop	(2)(E)	kPa	8	12	16	5	8	11	7	12	17	4	7	12
Heating capacity	(3)(E)	kW	1,74	2,26	2,70	1,76	2,37	2,94	1,74	2,41	3,03	2,39	3,13	4,05
FCCOP class	(E)		A			A			B			C		
Water flow	(3)	l/h	300	389	465	303	408	506	300	415	522	412	539	697
Water pressure drop	(3)(E)	kPa	8	12	17	5	8	11	6	10	15	5	8	13
Rated air flow		m³/h	241	341	442	241	341	442	241	341	442	320	450	640
Power input	(E)	W	6	8	16	8	10	20	6	8	16	10	17	34
Total sound power level	(4)(E)	dB(A)	35	43	48	36	42	48	35	43	49	35	46	52

ESTRO i			8			9			9M			95		
Speed			min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	(E)	V	3,70	5,40	8,00	5,00	6,70	8,90	5,00	6,70	8,90	4,80	6,10	8,30
Total cooling capacity	(1)(E)	kW	2,50	3,26	4,30	2,99	3,64	4,48	3,51	4,35	5,37	3,41	4,17	5,22
Sensible cooling capacity	(1)(E)	kW	1,79	2,44	3,12	2,31	2,90	3,62	2,46	3,05	3,79	2,47	3,11	3,95
FCEER class	(E)		A			B			A			A		
Water flow	(2)	l/h	430	561	740	515	627	771	604	749	925	587	718	899
Water pressure drop	(2)(E)	kPa	6	10	15	7	10	14	11	16	24	10	14	21
Heating capacity	(3)(E)	kW	2,47	3,24	4,24	3,36	4,11	4,88	3,53	4,37	5,39	3,52	4,32	5,49
FCCOP class	(E)		B											
Water flow	(3)	l/h	425	558	730	579	708	840	608	753	928	606	744	945
Water pressure drop	(3)(E)	kPa	5	8	14	7	9	13	10	14	20	8	12	18
Rated air flow		m³/h	361	497	706	470	605	785	470	605	785	488	615	814
Power input	(E)	W	10	13	27	15	20	41	17	23	47	15	18	43
Total sound power level	(4)(E)	dB(A)	35	43	53	43	49	56	44	50	57	44	51	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 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity)

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

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

(E) EUROVENT certified data

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

NOTE: The dimensional drawings of the ESTRO i inverter units are the same of the ESTRO ON/OFF version. They are reported from page 46

2 PIPES - RATED TECHNICAL DATA

ESTRO i			11			11M		
Speed			min	med	max	min	med	max
Control voltage	(E)	V	3,60	6,20	8,60	3,60	6,20	8,60
Total cooling capacity	(1)(E)	kW	4,11	6,24	8,02	4,65	6,94	8,89
Sensible cooling capacity	(1)(E)	kW	3,05	4,63	5,96	3,28	4,91	6,30
FCEER class	(E)		B			A		
Water flow	(2)	l/h	708	1075	1381	801	1195	1531
Water pressure drop	(2)(E)	kPa	6	13	20	9	19	29
Heating capacity	(3)(E)	kW	4,39	6,53	8,37	4,75	7,02	9,00
FCCOP class	(E)		B					
Water flow	(3)	l/h	756	1124	1441	818	1209	1550
Water pressure drop	(3)(E)	kPa	6	12	18	8	16	25
Rated air flow		m ³ /h	642	1022	1393	642	1022	1393
Power input	(E)	W	17	50	114	13	38	87
Total sound power level	(4)(E)	dB(A)	49	60	67	50	61	68

(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 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity)

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

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

(E) EUROVENT certified data

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

NOTE: The dimensional drawings of the ESTRO i inverter units are the same of the ESTRO ON/OFF version. They are reported from page 46

4 PIPES - RATED TECHNICAL DATA

ESTRO i			1			3			4			5		
Speed			min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	(E)	V	4,00	5,30	6,50	5,10	6,60	8,10	5,10	6,60	8,10	3,70	5,50	7,20
Total cooling capacity	(1)(E)	kW	0,75	0,89	1,12	1,23	1,47	1,67	1,25	1,55	1,77	1,57	1,99	2,37
Sensible cooling capacity	(1)(E)	kW	0,57	0,68	0,85	0,92	1,10	1,25	0,97	1,21	1,44	1,16	1,53	1,84
FCEER class	(E)		C			B			B			A		
Water flow	(2)	l/h	129	153	193	212	253	288	215	267	305	270	343	408
Water pressure drop	(2)(E)	kPa	4	5	7	8	11	14	7	10	13	8	12	16
Heating capacity	(3)(E)	kW	1,18	1,31	1,49	1,36	1,56	1,76	1,36	1,56	1,76	1,78	2,18	2,53
FCCOP class	(E)		B			B			B			B		
Water flow	(3)	l/h	102	113	128	117	134	152	117	134	152	153	188	218
Water pressure drop	(3)(E)	kPa	2	3	4	4	5	7	4	5	6	2	3	3
Rated air flow		m ³ /h	146	184	226	205	261	330	205	261	327	238	334	432
Power input	(E)	W	7	8	9	7	8	18	7	8	18	8	10	19
Total sound power level	(4)(E)	dB(A)	29	32	40	40	44	49	38	44	50	34	43	48

ESTRO i			6			7			8		
Speed			min	med	max	min	med	max	min	med	max
Control voltage	(E)	V	3,80	5,70	7,30	3,60	5,40	8,00	3,70	5,40	8,00
Total cooling capacity	(1)(E)	kW	1,72	2,32	2,86	1,95	2,59	3,44	2,47	3,22	4,24
Sensible cooling capacity	(1)(E)	kW	1,23	1,65	2,06	1,43	2,01	2,69	1,77	2,41	3,07
FCEER class	(E)		A								
Water flow	(2)	l/h	296	400	492	336	446	592	425	554	730
Water pressure drop	(2)(E)	kPa	5	8	11	4	7	12	5	7	12
Heating capacity	(3)(E)	kW	1,88	2,31	2,68	2,82	3,47	4,20	2,73	3,22	3,82
FCCOP class	(E)		B			B			A		
Water flow	(3)	l/h	162	199	231	243	299	362	235	277	329
Water pressure drop	(3)(E)	kPa	2	3	4	8	12	16	8	10	14
Rated air flow		m ³ /h	237	332	431	316	444	628	356	490	690
Power input	(E)	W	6	11	17	9	12	17	9	13	25
Total sound power level	(4)(E)	dB(A)	33	41	47	36	45	53	39	46	56

(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 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity)

(3) Water temperature 65°C / 55°C, air temperature 20°C

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

(E) EUROVENT certified data

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4 PIPES - RATED TECHNICAL DATA

ESTRO i			9			95			11		
Speed			min	med	max	min	med	max	min	med	max
Control voltage	(E)	V	5,00	6,70	8,70	4,80	6,10	8,30	3,60	6,20	8,60
Total cooling capacity	(1)(E)	kW	3,10	3,79	4,64	3,53	4,32	5,39	3,76	5,67	7,20
Sensible cooling capacity	(1)(E)	kW	2,27	2,85	3,54	2,42	3,06	3,86	3,00	4,52	5,73
FCEER class	(E)		B			B			B		
Water flow	(2)	l/h	534	653	799	608	744	928	647	976	1240
Water pressure drop	(2)(E)	kPa	7	10	14	10	14	20	5	10	16
Heating capacity	(3)(E)	kW	3,55	4,07	4,64	3,70	4,20	4,84	4,85	6,29	7,35
FCCOP class	(E)		C								
Water flow	(3)	l/h	306	350	400	319	362	417	418	542	633
Water pressure drop	(3)(E)	kPa	7	8	11	7	9	12	14	22	29
Rated air flow		m ³ /h	460	593	763	478	603	792	636	1007	1362
Power input	(E)	W	19	24	46	22	27	57	18	51	116
Total sound power level	(4)(E)	dB(A)	46	52	56	46	52	59	48	58	66

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(2) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity)

(3) Water temperature 65°C / 55°C, air temperature 20°C

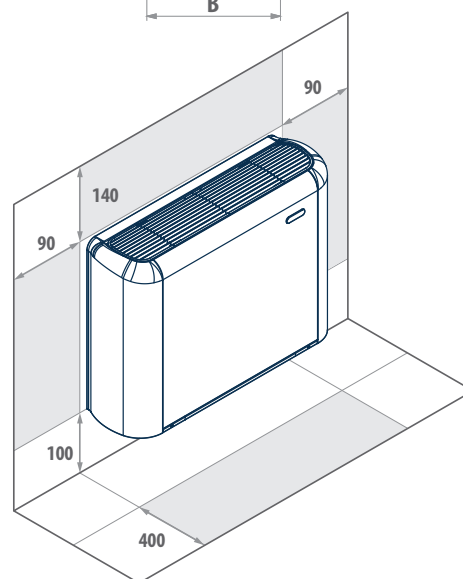
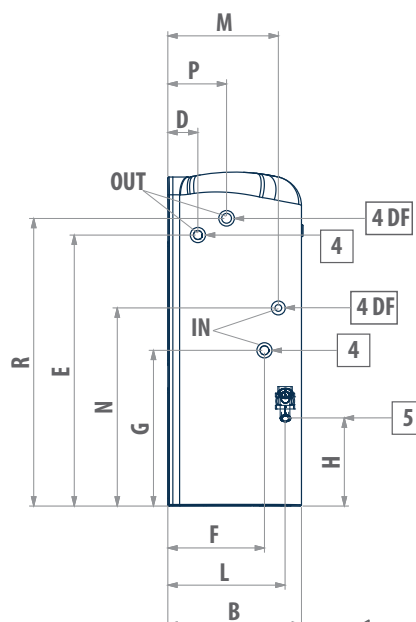
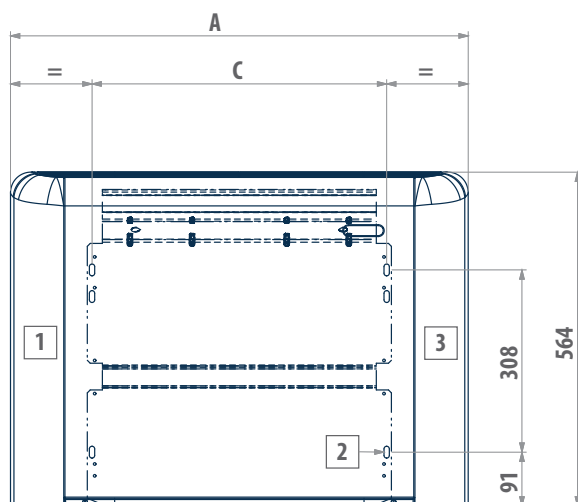
(4) Sound power measured according to standards ISO 3741 and ISO 3742

(E) EUROVENT certified data

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DIMENSIONAL DRAWINGS

ESTRO FL



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
4DF	DF 1-row additional heat exchanger water connections
5	Condensate drainage

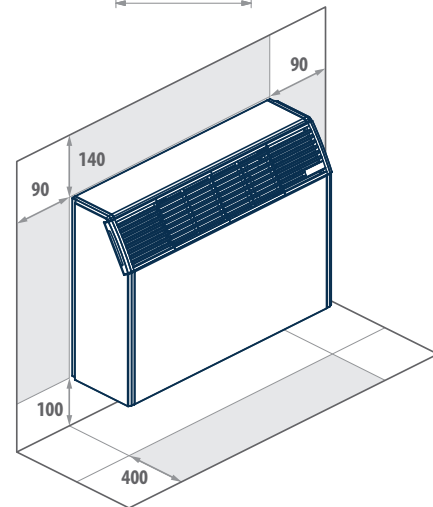
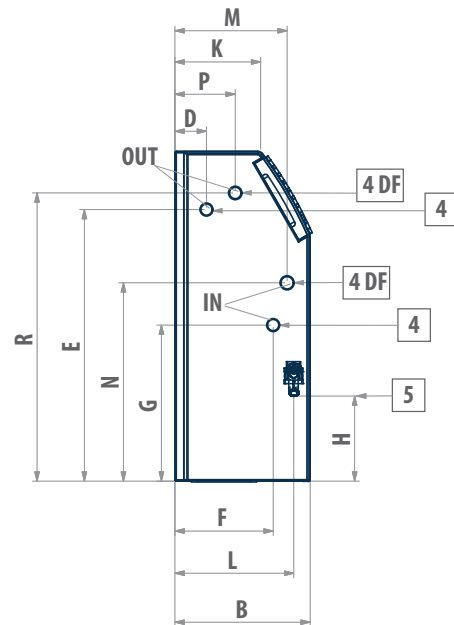
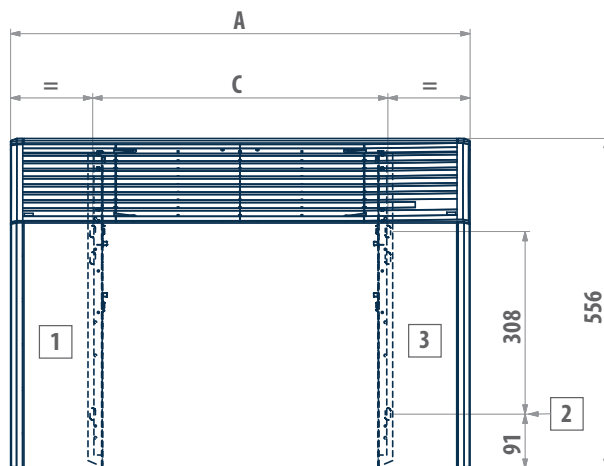
ESTRO	1	2	3	4	4M	5	6	6M	7	7M	8	8M	9	9M	95	10	10M	11	11M	12
ON/OFF motor (3 speed)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Inverter-controlled motor	x	-	x	x	x	x	x	x	x	-	x	-	x	x	x	-	-	x	x	-

x = available

ESTRO	A	B	C	D	E	F	G	H	L	M	N	P	R	4	4DF	5	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	"	"	mm	kg
1 - 2 - 3 - 4 - 4M	774	226	498	51	458	163	263	149	198	187	335	99	486	1/2	1/2	16	21
5 - 6 - 6M	984	226	708	51	458	163	263	149	198	187	335	99	486	1/2	1/2	16	27
7 - 7M - 8 - 8M - 9 - 9M	1194	226	918	51	458	163	263	149	198	187	335	99	486	1/2	1/2	16	33
95	1194	251	918	48	497	185	259	155	220	195	348	120	478	3/4	1/2	16	34
10 - 10M - 11 - 11M	1404	251	1128	48	497	185	259	155	220	195	348	120	478	3/4	1/2	16	43
12	1614	251	1338	48	497	185	259	155	220	195	348	120	478	3/4	1/2	16	53

DIMENSIONAL DRAWINGS

ESTRO FA



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
4DF	DF 1-row DF additional heat exchanger water connections
5	Condensate drainage

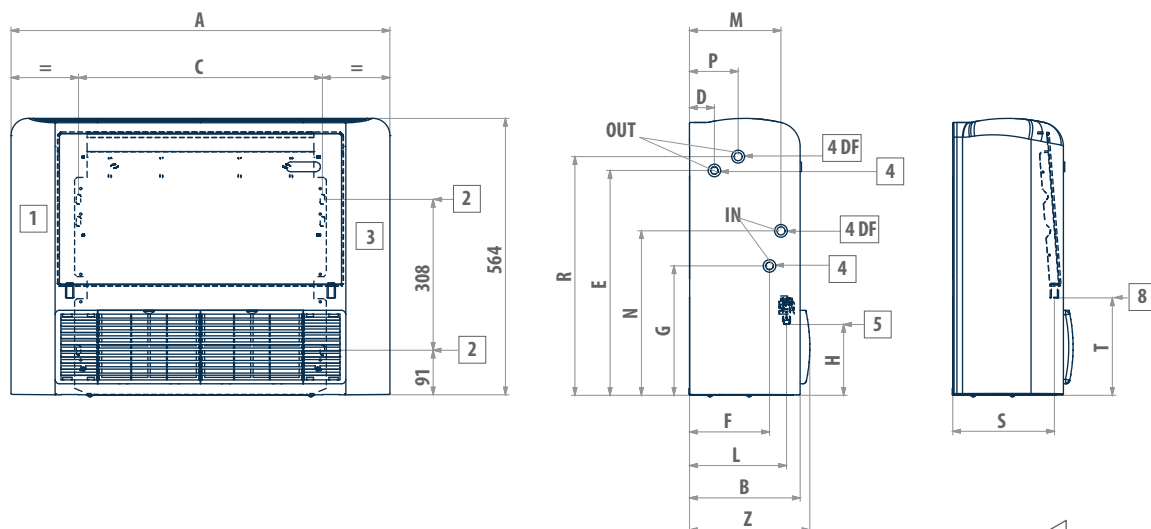
ESTRO FA	1	2	3	4	4M	5	6	6M	7	7M	8	8M	9	9M	10	10M	11	11M	12
ON/OFF motor (3 speed)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Inverter-controlled motor	x	-	x	x	x	x	x	x	x	-	x	-	x	x	-	-	x	x	-

x = available

ESTRO	A	B	C	D	E	F	G	H	K	L	M	N	P	R	4	4DF	5	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	"	"	mm	kg
1 - 2 - 3 - 4 - 4M	774	228	498	53	458	166	263	149	145	198	187	335	99	486	1/2	1/2	16	22
5 - 6 - 6M	984	228	708	53	458	166	263	149	145	198	187	335	99	486	1/2	1/2	16	26
7 - 7M - 8 - 8M - 9 - 9M	1194	228	918	53	458	166	263	149	145	198	187	335	99	486	1/2	1/2	16	32
10 - 10M - 11 - 11M	1404	253	1128	50	497	188	259	155	170	220	195	348	120	478	3/4	1/2	16	42
12	1614	253	1338	50	497	188	259	155	170	220	195	348	120	478	3/4	1/2	16	50

DIMENSIONAL DRAWINGS

ESTRO FU



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
4DF	DF 1-row DF additional heat exchanger water connections
5	Condensate drainage vertical installation
8	Condensate drainage horizontal installation

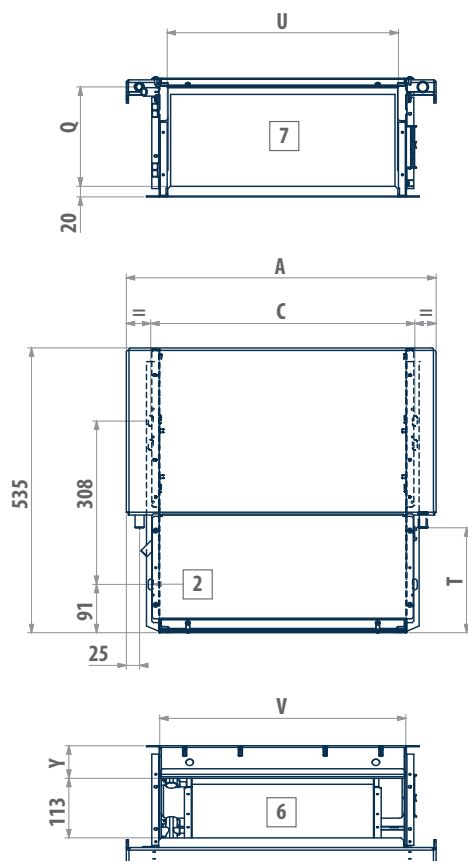
ESTRO FU	1	2	3	4	4M	5	6	6M	7	7M	8	8M	9	9M	95	10	10M	11	11M	12
ON/OFF motor (3 speed)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Inverter-controlled motor	x	-	x	x	x	x	x	x	x	-	x	-	x	x	x	-	-	x	x	-

x = available

ESTRO FU	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	Z	4	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	"	kg
1 - 2 - 3 - 4 - 4M	774	226	498	51	458	163	263	149	198	187	335	99	486	208	198	246	1/2	22
5 - 6 - 6M	984	226	708	51	458	163	263	149	198	187	335	99	486	208	198	246	1/2	29
7 - 7M - 8 - 8M - 9 - 9M	1194	226	918	51	458	163	263	149	198	187	335	99	486	208	198	246	1/2	35
95	1194	251	918	48	497	185	259	155	220	195	348	120	478	234	208	271	3/4	36
10 - 10M - 11 - 11M	1404	251	1128	48	497	185	259	155	220	195	348	120	478	234	208	271	3/4	45
12	1614	251	1338	48	497	185	259	155	220	195	348	120	478	234	208	271	3/4	55

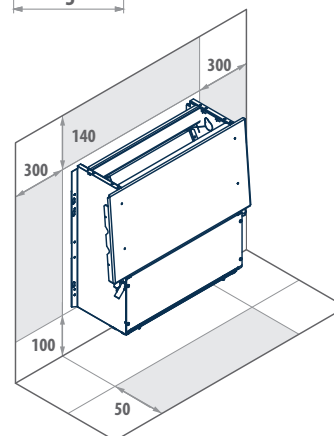
DIMENSIONAL DRAWINGS

ESTRO FC



LEGEND

2	Slots for installation on the wall
4	Standard heat exchanger water connections
4DF	DF 1-row DF additional heat exchanger water connections
5	Condensate drainage vertical installation
6	Air outlet
7	Air intake
8	Condensate drainage horizontal installation



ESTRO FC	1	2	3	4	4M	5	6	6M	7	7M	8	8M	9	9M	95	10	10M	11	11M	12
ON/OFF motor (3 speed)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Inverter-controlled motor	x	-	x	x	x	x	x	x	x	-	x	-	x	x	x	-	-	x	x	x

x = available

ESTRO	A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V	Y	4	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	"	
1 - 2 - 3 - 4 - 4M	584	224	498	51	458	163	263	149	198	187	335	99	189	486	208	198	436	464	61	1/2	18
5 - 6 - 6M	794	224	708	51	458	163	263	149	198	187	335	99	189	486	208	198	646	674	61	1/2	23
7 - 7M - 8 - 8M - 9 - 9M	1004	224	918	51	458	163	263	149	198	187	335	99	189	486	208	198	856	884	61	1/2	27
95	1004	249	918	48	497	185	259	155	220	195	348	120	215	478	234	208	856	884	67	3/4	27
10 - 10M - 11 - 11M	1214	249	1128	48	497	185	259	155	220	195	348	120	215	478	234	208	1066	1094	67	3/4	37
12	1424	249	1338	48	497	185	259	155	220	195	348	120	215	478	234	208	1276	1304	67	3/4	43