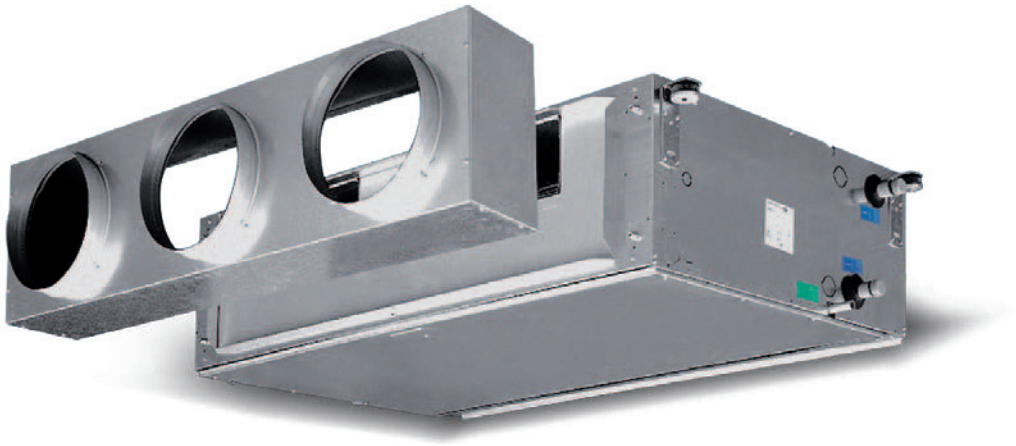
SABIANA
IL CLIMA AMICO
A leading brand of AFG



domoticus
el clima perfecto

Maestro

High Pressure Fan Coil Unit with Asynchronous Motor

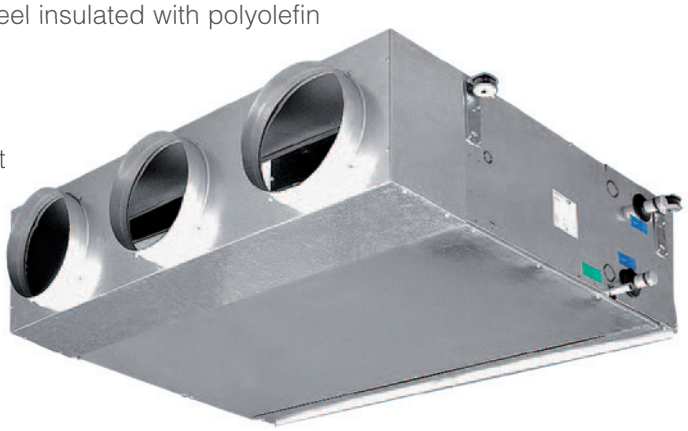
The Maestro high pressure fan coils are produced in 5 sizes. Designed and built for concealed installations, they have small dimensions, are very silent and have a particularly interesting price in relation to their performance (all sizes, even at the lowest speed, have a residual pressure head of at least 160 Pa).

They are suitable for climate control for small and medium commercial and sports environments or for large civil environments and integrate perfectly in regular false ceilings. Each size is equipped with 4 speed fans, 3 of which are connected to the terminal board. The base models call for a 4 row coil but upon request, units with 3 row coils or additional coils (for 4 pipe systems) with one or two rows can be provided.

A complete set of accessories solves any type of system problem.

Technical characteristics of the main components:

Casing: made with galvanized steel insulated with polyolefin (PO) foam (class M1).



Fan assembly: consists of quiet centrifugal fans in galvanized steel with two impellers and a directly driven single phase, four speed motor, 230V 50Hz, with capacitor, insulation class B.

Coil: it is manufactured from drawn copper tube and the aluminium fins are mechanically bonded onto the tube by an expansion process. The Maestro Sabiana range is available with the combination of either 3 or 4 row coils (sizes 1÷5) with the possibility to add a 1 or 2 row coil (3+1, 4+1, 3+2, 4+2 versions for 4 pipe systems), and 4 or 6 row coils (sizes 6-7) with the possibility to add a 2 row coil (4+2, 6+2 versions for 4 pipe systems).

The connections are on the left hand side looking from the air inlet of the unit (see picture). On request or on site the connections can be moved to the other side.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

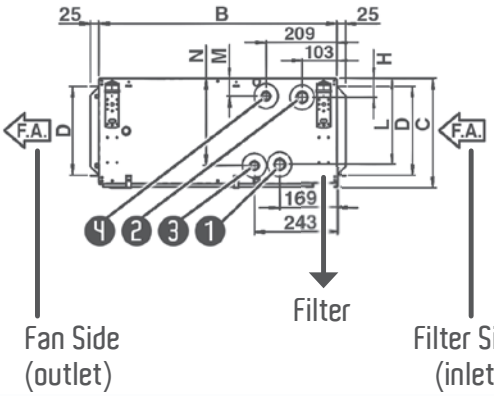
Filter: polypropylene cellular fabric regenerating filter.
The filter frame of galvanized steel is inserted into special PVC sliding guides fastened to the internal structure for easy insertion and removal of the filter.

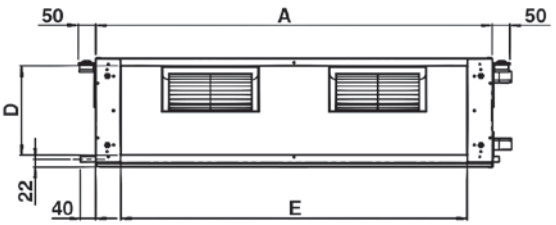
Condensate collection tray: made from galvanized steel insulated with polyolefin (PO) foam (class M1).

All range is compliant with the new **ERP 2013 Regulation (EU) No. 327/2011** which requires **very low electric consumption ratings** in relation to performances provided.

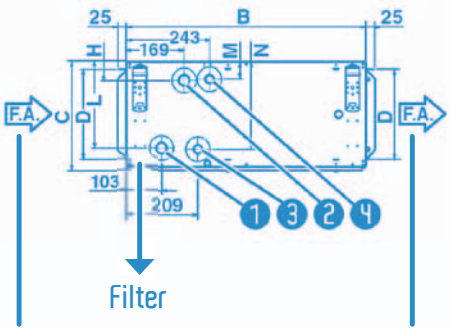
Dimensions, Weight, Water content

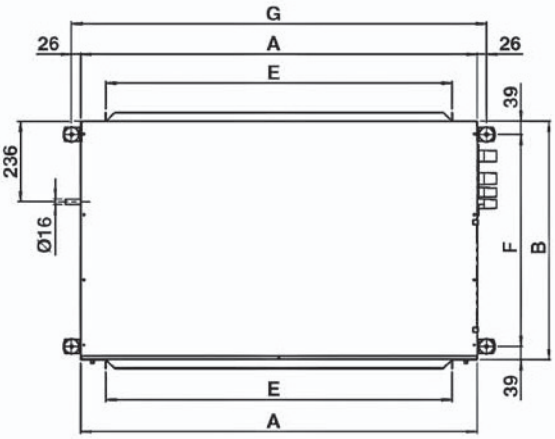
Left connections (standard)





Right connections (on request)





MODEL	DIMENSIONS											COIL			
												MAIN		ADDITIOTIONAL	
	A	B	C	D	E	F	G	H	L	M	N	①	②	③	④
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	IN	OUT	IN	OUT
MTO 1	1133	698	310	255	991	620	1185	54	245	50	249	3/4"	3/4"	3/4"	3/4"
MTO 2	1133	698	310	255	991	620	1185	54	245	50	249	1"	1"	3/4"	3/4"
MTO 3	1133	698	360	305	991	620	1185	54	295	50	299	1"	1"	3/4"	3/4"
MTO 4	1445	853	360	293	1302	775	1497	58	291	54	295	1 1/4"	1 1/4"	1"	1"
MTO 5	1445	853	435	368	1302	775	1497	58	367	54	370	1 1/4"	1 1/4"	1"	1"
MTO 6	1535	1100	488	421	1393	1022	1587	59	416	55	421	1 1/4"	1 1/4"	1"	1"
MTO 7	1535	1100	588	521	1393	1022	1587	59	516	55	521	1 1/4"	1 1/4"	1"	1"

MODEL	WEIGHT WITHOUT PACKAGING (kg)						WEIGHT WITH PACKAGING (kg)						WATER CONTENT (liters)			
	3R	3+1R	3+2R	4R	4+1R	4+2R	3R	3+1R	3+2R	4R	4+1R	4+2R	3R	4R	1R	2R
MTO 1	45	48	50	47	50	51	48	51	53	50	53	54	2,0	2,6	0,9	1,5
MTO 2	46	50	52	48	51	53	49	53	55	51	54	56	2,9	3,7	1,1	1,8
MTO 3	54	58	60	56	60	62	57	61	63	59	63	65	3,5	4,6	1,4	2,4
MTO 4	75	80	83	78	83	86	79	84	87	82	87	90	4,7	6,0	2,0	3,2
MTO 5	85	90	94	88	94	98	89	94	98	92	98	102	5,7	7,1	2,7	4,1
	4R		4+2R	6R	6+2R		4R		4+2R	6R	6+2R		4R	6R	2R	
MTO 6	124		134	130	140		127		137	133	143		7,6	11,1	4,1	
MTO 7	140		152	148	160		143		155	151	163		9,7	13,8	5,5	

Certification

www.eurovent-certification.com
www.certiflash.com

Units with 4 row coil

2 pipe units. The following standard rating conditions are used:

***COOLING* (summer mode)**

Entering air temperature: +27°C d.b. +19°C w.b.
Water temperature: + 7°C E.W.T. +12°C L.W.T.

***HEATING* (winter mode)**

Entering air temperature: +20°C
Entering water temperature: +50°C
Water flow rate as for the cooling conditions

MODEL MTO		14			24			34			44			54 (**)			64 (**)			74 (**)		
Speed (E)		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air flow (E)	m³/h	790	1125	1410	840	1410	1825	1710	2075	2440	2070	2580	3020	2740	3280	3850	1880	3385	4800	3925	5070	7100
Available pressure (E)	Pa	25	50	75	15	50	80	30	50	70	35	50	67	35	50	70	150	150	150	150	150	150
Cooling total emission (E)	kW	4,28	5,36	6,11	5,16	7,24	8,44	9,06	10,18	11,18	11,33	12,98	14,23	15,04	16,81	18,52	12,99	19,51	24,19	23,06	27,09	33,09
Cooling sensible emission (E)	kW	3,36	4,41	5,22	3,83	5,71	6,90	7,02	8,10	9,12	8,69	10,25	11,49	11,71	13,42	15,13	9,45	14,94	19,28	17,57	21,22	26,99
Heating (E)	kW	5,80	7,55	8,86	6,58	9,79	11,78	12,04	13,87	15,54	14,92	17,55	19,64	19,39	22,12	24,79	20,86	33,52	43,6	39,34	47,85	61,14
Dp Cooling (E)	kPa	5,1	7,6	9,6	6,9	12,7	16,8	16,0	19,8	23,4	13,9	17,7	20,9	13,3	16,2	19,3	7,4	15,3	22,6	14,4	19,3	27,6
Dp Heating (E)	kPa	4,1	6,2	7,9	5,6	10,3	13,6	13,1	16,2	19,1	11,2	14,5	17,0	10,8	13,2	15,7	3,9	9,1	14,7	8,5	12,1	18,8
Fan (E)	W	115	154	191	170	230	285	350	420	470	445	550	630	500	617	760	574	778	1304	1518	1758	2460
Sound power outlet (E)	dB(A)	51	59	64	50	62	67	61	65	69	63	68	70	66	70	73	63	71	77	71	75	81
Sound power inlet + radiated (E)	dB(A)	52	60	65	51	63	68	62	66	70	64	69	71	67	71	74	-	-	-	-	-	-
Sound pressure outlet (*)	dB(A)	42	50	55	41	53	58	52	56	60	54	59	61	57	61	64	54	62	68	62	66	72
Sound pressure inlet + radiated (*)	dB(A)	43	51	56	42	54	59	53	57	61	55	60	62	58	62	65	-	-	-	-	-	-
Plenum code (E)		9034200			9034200			9034220			9034230			9034240			9034280			9034290		

Units with additional coil

4 pipe units. The following standard rating conditions are used:

***COOLING* (summer mode)**

Entering air temperature: +27°C d.b. +19°C w.b.
Water temperature: + 7°C E.W.T. +12°C L.W.T.

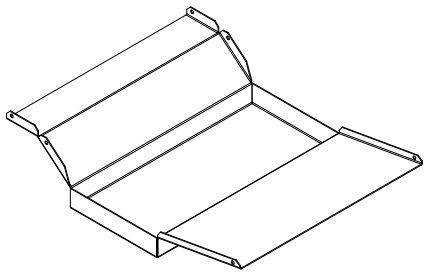
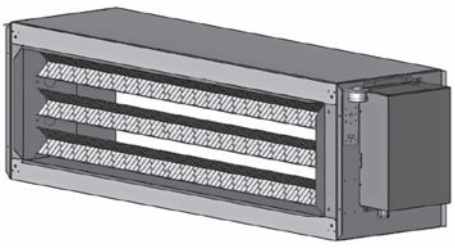
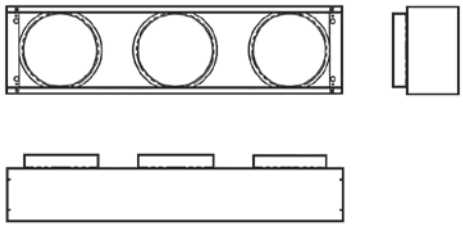
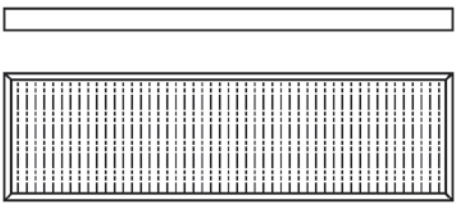
***HEATING* (winter mode)**

Entering air temperature: +20°C
Water temperature: +70°C E.W.T. +60°C L.W.T.

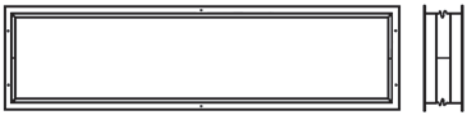
MODEL MTO		14+1			24+1			34+1			44+1			54+1 (**)			64+2 (**)			74+2 (**)		
Speed (E)		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air flow (E)	m³/h	770	1090	1350	840	1390	1775	1680	2045	2390	2055	2545	2960	2700	3245	3800	1860	3330	4680	3920	5040	6980
Available pressure (E)	Pa	25	50	75	15	50	80	30	50	70	35	50	67	35	50	70	150	150	150	150	150	150
Cooling total emission (E)	kW	4,21	5,26	5,97	5,16	7,18	8,30	8,95	10,09	11,04	11,29	12,88	14,08	14,24	15,92	17,48	12,89	19,31	23,85	23,03	26,98	32,74
Cooling sensible emission (E)	kW	3,29	4,31	5,06	3,83	5,65	6,76	6,93	8,02	8,97	8,65	10,15	11,33	11,11	12,74	14,31	9,37	14,77	18,95	17,55	21,12	26,66
Heating (E)	kW	3,96	4,87	5,47	4,63	6,28	7,16	7,62	8,47	9,20	9,83	11,07	12,00	12,67	14,00	15,28	19,81	29,78	37,13	35,50	41,88	51,31
Dp Cooling (E)	kPa	4,9	7,3	9,2	6,9	12,5	16,3	15,7	19,4	22,9	13,8	17,4	20,5	12,0	14,7	17,4	7,3	15,0	22,0	14,4	19,1	27,1
Dp Heating (E)	kPa	11,7	17,0	21,0	14,5	25,2	31,9	15,9	19,3	22,3	27,6	34,1	39,5	26,0	31,1	36,3	11,9	24,9	37,0	23,8	32,0	46,1
Fan (E)	W	115	155	185	170	225	275	345	415	460	440	540	615	495	610	750	565	750	1327	1499	1727	2376
Sound power outlet (E)	dB(A)	51	59	64	50	62	67	61	65	69	63	68	70	66	70	73	63	71	77	71	75	81
Sound power inlet + radiated (E)	dB(A)	52	60	65	51	63	68	62	66	70	64	69	71	67	71	74	-	-	-	-	-	-
Sound pressure outlet (*)	dB(A)	42	50	55	41	53	58	52	56	60	54	59	61	57	61	64	54	62	68	62	66	72
Sound pressure inlet + radiated (*)	dB(A)	43	51	56	42	54	59	53	57	61	55	60	62	58	62	65	-	-	-	-	-	-
Plenum code (E)		9034200			9034200			9034220			9034230			9034240			9034280			9034290		

(E) = Eurovent certified performance.
(*) = The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.
(**) = Models not covered by EUROVENT certification program.

Accessories

Kit 230V	**Main and auxiliary coil valve kit** ***(to be used only with ON/OFF 230 V controls: QCV-MB, TMO-T and TMO-T-AU)*** 230 V, ON-OFF valve.	
Kit 24V	**Main and auxiliary coil valve kit** ***(to be used only with QCV modulating valve control board)*** Valve with 3 points - 24 Volt actuator.	
BCM	**External auxiliary condensate collection tray**	
BEM	**Electric coil** Consists of electric resistances and a security thermostat, which are inside a galvanized steel and insulated casing.	
PMM	**Intake/supply spigot plenum** Intake/supply spigot plenum with 3 spigots (Sizes 1 - 2 - 3) or 4 spigots (Sizes 4 - 5).	
SFM	**G3 synthetic filter** The filter is a washable synthetic fibre, flame-proof according to Class F1 DIN 53438. Efficiency of ASHRAE 84%, Eurovent EU3.	

Accessories

GAV	**Antivibrating connection** Intake/supply antivibrating connection, made of two galvanized frames and a PVC flexible connection.	

Wall electronic controls

COM	Speed selector with 4 positions: OFF, first speed, second speed, third speed
MO-3V	3 speed control
TMO-T	3 speed control with electronic thermostat and summer/winter switch
TMO-T-AU	Automatic speed control with electronic thermostat and summer/winter switch
SEL-S	Receiving board for centralized control

Modulating valve control board

QCV	Modulating valve control board (ETN 500 wall control, air temperature probe, low temperature cut-out thermostat and Change-Over T2 included)

Electronic controls for MB boards

QCV-MB	MB version control board (T-MB wall control included)
PSM-DI	Multifunction control (to be used with QCV-MB control board only)

Sabianet management system for a network of fan coils

Sabianet	Sabianet (to be used with QCV-MB control board only)
ROUTER-S	Router for Sabianet
SIOS	Relay output board for Sabianet

The descriptions and illustrations provided in this publication are not binding: Sabiana reserves the right, whilst maintaining the essential characteristics of the types described and illustrated, to make, at any time, without the requirement to promptly update this piece of literature, any changes that it considers useful for the purpose of improvement or for any other manufacturing or commercial requirements.

SABIANA

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