

# STANDARD AND CUSTOMIZED FAN COIL UNITS





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#### THE COMPANY









#### Your partner for fan coil units

Bini Clima was established in 1919. The initial manufacturing of air heaters developed into a more extended product range, which includes highly efficient fan-coil units for every field of application since 1977. Thanks to the favorable geographical location in Northern Italy, the company has easy access to the best suppliers of high-quality components. Since 2010, Bini Clima is part of Euroclima Group.

The company complies with the highest quality standards when it comes to selecting reliable components and manufacturing its products on the sizable production area of approximately 11000 m². The innovative product design, the elaboration of sustainable solutions and the distinctive customer orientation characterize Bini Clima, making it an ideal partner in the field of air conditioning and ventilation.

#### **Success story**

The secret of Bini Clima's long-standing and continuous success lies in the efficient project-management and the distinctive customerorientation. We understand and address to our customer's needs and offer customized solutions to optimize operating costs. This is achieved by:

- our professionalism and the commitment of all our employees
- our teamwork and the close relationships with our distributors, customers and suppliers
- our many years of experience and know-how in elaborating innovative solutions
- the quality, sustainability and reliability of our products











#### YOUR BEST PARTNER FOR FAN COIL UNITS

#### **Customized terminals**

Bini Cima offers a wide range of both standardized and customized terminal units for residential and commercial buildings such as hotels, offices, schools, stores, museums, cinemas etc.. We not only produce simple and cost effective products for comfort applications, but we can also comply with special requests such as marine or medical applications. Furthermore we can design special products for your own projects, built with the latest technology components. All Bini Clima fancoils can be delivered with factory fitted controls and accessories (valves, heating elements, etc.).

#### Our philosophy

- CUSTOMER the trustful cooperation with our partners, customers and suppliers and our professionalism create the basis for long lasting partnerships
- EMPLOYEE through the outstanding internal teamwork we are able to work efficiently and effectively
- COMMITMENT our major commitment grants the best possible support to our customers, from design and production through to after-sale service



#### Our vision

The world and the market are changing very fast, we therefore continuously adapt our products and processes to meet the latest requirements and regulations. Our strategy is based on continuous development of environmentally friendly solutions in order to achieve the best possible indoor air quality. Innovation, sustainability and minimum operating costs are the key aspects we consider when designing new solutions.



#### **GENERAL FEATURES**

COIL Copper tubes DN 9,52 mm (3/8") staggered for greater heat transfer, highly efficient aluminium fins. Coil headers

made of brass, copper or steel with connections for 2 or 4 pipe systems. Manual air vent valves as standard, automatic air vent valves optional. Working pressure 14,4 bar (test 24 bar), working temperature 80°C (max 100°C).

FILTER Regenerable synthetic fiber enclosed in a galvanized frame with wire mesh protection. The filter is easily removable

for cleaning and maintenance. Filter efficiency G1, G2 and G3 (MERV 1-5). On request metallic, washable or highly

efficient filters available.

FAN Tangential, helicoidal and double inlet centrifugal fans with galvanized steel scrolls and alumiunium or ABS impel-

lers. The impellers are statically and dynamically balanced. In the "F" series, the fan deck is fixed with 2 screws and

can be easily removed for maintenance.

MOTOR Motors in accordance with European Standard ErP2015 n. 327/2011 (where indicated), provided with self-lubri-

cating bearings and cast aluminum enclosure (temperature class B or F, thermal protection incorporated) with or

without autotransformer.

 $\underline{AC\text{-motor}} - V230/1Ph/50\text{-}60Hz \text{ single phase, 3, 5, 6 or 7 speeds are available depending on model, 3 are wired}$ 

to the fan speed switch.

EC-motor - V230/1Ph/50-60Hz single phase, brushless, for continuous variable speed control (0...10V signal)

**CASING** Frame construction made of galvanised steel, casing epoxy powder coated RAL 9010 (any RAL colour available

on request). On request complete insulation on fan and coil section and cabinet (5 or 12 mm closed cells self-adhesive polyethylene, fireproof insulation class 1 European standard). Inclined drain pan made of galvanised steel, insulated 5 mm self-adhesive polyethylene as standard. On request drain pan made of stainless steel or epoxy

powder coated.

<u>DS series</u> – sandwich double skin self supporting panel 25 mm thick, outer skin 0,7 mm RAL 9010 polyester coating. Inner skin 1,0 mm galvanized sheet steel. Soundabsorbing rockwool insulation, non-combustible, fire class

A1, density 20 kg/m<sup>3</sup>.

CONTROL 3-speed fan switch, wired electrical control box IP22 (IP55 on request), mechanical and electronic thermostats,

unit or wall mounted available according to the fancoil model.

GRILLE Supply grille made of ABS, light grey RAL 7047 (series "F" and "FE"), anodized and coated aluminium grille (other

series).



#### **GENERAL FEATURES**

#### **ACCESSORIES**

THERMOSTAT Mechanical or electonic, unit or wall mounted to control all the unit's functions (summer/winter switch, 3-speed fan

switch), ready for valve control etc.. A great choice of regulations for standard and special applications is available.

**VALVE** 2, 3, 3 ways + bypass with on/off actuators (V230/1) and modulating actuators (0...10Vdc) for 2 or 4-pipe systems.

They can be supplied loose or factory fitted.

**HEATING ELEMENT** Stainless steel AISI 304 with alu-zinc fins, safety thermostat with manual reset (automatic on request), power

contactor. Technical and constructional characteristics according to European safety regulations. Several heating

elements can be connected parallely to increase the heating capacity.

**SUPPORTING FEET** For vertical units, made of sturdy galvanized steel epoxy coated, light grey RAL 7047, to be mounted on the units

base for placement or screening of tubes.

**PLENUM** Supply monoblock plenum with round spigot connections (max. DN 250 mm), return plenum is to be mounted

separately. It can be internally insulated with closed cells self-adhesive polyethylene, fireproof insulation (class 1

European standard).

**GERMICIDAL LAMP** High efficiency lamp, reduces the risk of contamination of coil fins. Used whenever a high degree of sterilization is

required



## **UNDERFLOOR UNITS**



Bini Clima underfloor units with their special design are the optimal **solution for floor mounting installations** in hotels, offices, airports, museums, etc.

Low **noise**, clean air (air filtration), effective **air exchange** (available with external air intake or in combination with centralized air handling units), **design**, product **quality** and **long lasting lifetime** are the main advantages.

## **UNDERFLOOR UNITS**

#### FR, FP, FR-EC, FP-EC

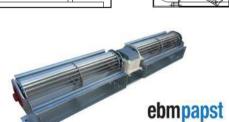
## 149 mm or 206 mm height

FR 359 FP 355

- tangential fan for low noise level
- by-pass (air curtain) to avoid air recirculation
- galvanized modular frame
- black epoxy paint
- walkable aluminium grille
- synthetic washable air filter
- 2 or 4 pipe systems
- coil with 4 or 3+1 rows
- IP55 electric box
- AC-motor (FR & FP) and EC-motor (FR-EC & FP-EC)

FR 149 FP 206	<b>←</b> □ <b>→</b> □
0)	

Α



Size	FR	08	16	32
Nominal airflow (0)	m³/h	225	462	625
Total cooling capacity (1)	kW	1,14	3,06	4,66
Sensible cooling capacity (1)	kW	0,93	2,19	3,11
Heating capacity (2)	kW	1,73	3,94	5,50
Heating capacity (3)	kW	3,17	6,67	9,22
Sound Power Level Lw (4)	dB(A)	45,3	46,5	47,1
Sound pressure Level Lp (4)	dB(A)	36,3	37,5	38,1
Width "A"	mm	1250	2000	2750

Size	FP	08	16	32
Nominal airflow (0)	m³/h	305	570	840
Total cooling capacity (1)	kW	2,15	4,35	6,39
Sensible cooling capacity (1)	kW	1,50	2,91	4,28
Heating capacity (2)	kW	2,91	5,50	8,11
Heating capacity (3)	kW	4,53	8,54	12,57
Sound Power Level Lw (4)	dB(A)	46,3	47,4	48,5
Sound pressure Level Lp	dB(A)	37,3	38,4	39,5
Width "A"	mm	1250	2000	2750

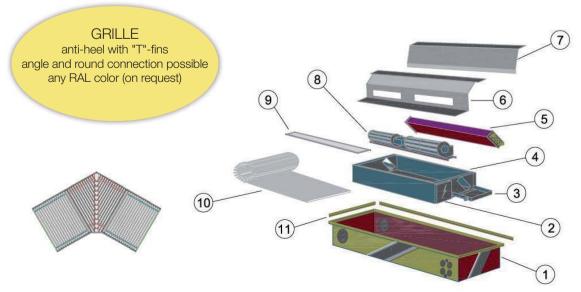
- FR=4R (4T) / FP=4R(6T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in: 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

FR-EC	08	16	32
m³/h	248	502	675
kW	1,18	3,26	4,99
kW	1,00	2,35	3,32
kW	1,87	4,22	5,89
kW	3,44	7,16	9,87
dB(A)	52,2	55,0	56,5
dB(A)	43,2	46,0	47,5
mm	1250	2000	2750

FP-EC	08	16	32
m³/h	320	560	840
kW	2,24	4,29	6,39
kW	1,56	2,86	4,28
kW	2,80	5,02	7,51
kW	4,73	8,41	12,57
dB(A)	46,4	46,7	48,3
dB(A)	37,4	37,7	39,3
mm	1250	2000	2750

- FR=4R (4T) / FP=4R(6T) Voltage 10 Vdc
  Air: 27° C, 50 % Water in: 7 / 12° C
  Air: 20° C Water in 50° C same water flow as cooling
  Air: 20° C Water in 70 / 60° C
  Lw: Octave band center frequency Lp=Lw-9dB(A)





- 1 External black housing
- (2) Electric box
- (3) Drain pan
- (4) Internal casing
- (5) Water coil
- (6) Fan plate
- 7 Air bypass plate
- (8) Tangential fan
- (9) Air filter
- (10) Aluminium roll-up grille
- (11) Aluminium frame



The *innovative design* of Bini Clima cassettes grants *high performance with low sound*. It is the perfect unit if the design comes first and it perfectly matches any surroundings or decor. The highly efficient fan and the adjustable blades grant a *perfect air distribution*. The dimensions of the cassette are suitable for all *European standard modules* and allow a *quick and easy installation*.

Wide range of models and huge availability of accessories make these cassettes adaptable to any request.

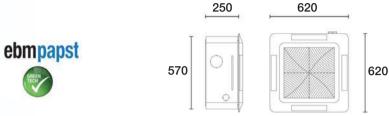






CT, CT-EC 4-way single

- · condensing pump, non-return valve and float included
- easily removable and washable filter
- 2 or 4 pipe systems
- coil with 2, 3 or 2+1 rows
- AC-motor (CT) and EC-motor (CT-EC)
- remote IR control or wall thermostat (on request)
- fins adjustable with remote control
- electric element and safety contactor (on request)
- fresh & adjacent room air spigot (on request)
- panel in ABS



Size (single)	СТ	2 pipes					4 pi	oes	
		2CT031	2CT049	3CT065	3CT075	2CT031	2CT049	3CT065	3CT075
Nominal airflow (0)	m³/h	580	750	800	950	580	750	800	950
Total cooling capacity (1)	kW	3,10	4,92	6,57	7,55	3,10	4,92	5,33	6,05
Sensible cooling capacity (1)	kW	1,95	3,23	4,22	4,84	1,95	3,23	3,43	3,88
Heating capacity (2)	kW	3,79	5,99	7,33	8,53	-	-	-	-
Heating capacity (3)	kW	6,40	10,07	12,23	14,22	5,27	6,23	6,54	7,27
Sound Power Level Lw (4)	dB(A)	48,0	56,0	58,0	61,0	48,0	56,0	58,0	61,0
Sound Pressure Level Lp (4)	dB(A)	39,0	47,0	49,0	52,0	39,0	47,0	49,0	52,0

CT-EC	2 p	ipes	4 pip	es
	2CT049	3CT075	2CT049	3CT075
m³/h	760	980	760	980
kW	4,95	7,75	4,95	6,21
kW	3,26	4,96	3,26	3,97
kW	6,05	8,76	-	-
kW	10,21	14,61	6,31	7,38
dB(A)	60,0	61,0	60,0	61,0
dB(A)	51,0	52,0	51,0	52,0

- 2CT=2R & 2+1R / 3CT=3R & 2+1R Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lu: Octave band center frequency Lp=Lw-9dB(A)

- 2CT=2R & 2+1R / 3CT=3R & 2+1R Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Levi cotave band center frequency Lp=Lw-9dB(A)

#### CD, CD-EC

## 4-way double

- condensing pump, non-return valve and float included
- · easily removable and washable filter
- 2 or 4 pipe systems
- coil with 2, 3 or 2+1 rows
- AC-motor (CD) and EC-motor (CD-EC)
- remote IR control or wall thermostat (on request)
- fins adjustable with remote control
- electric element and safety contactor (on request)
- fresh & adjacent room air spigot (on request)
- panel in ABS

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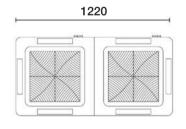
CD-EC

m³/h

kW

kW

250



4 pipes

126

1620

9,12

620

Size (double)	CD	2 pipes			4 pip		
		090	102	122	090	102	122
Nominal airflow (0)	m³/h	1100	1250	1510	1100	1250	1510
Total cooling capacity (1)	kW	9,01	10,24	12,17	6,90	7,60	8,69
Sensible cooling capacity (1)	kW	5,91	6,65	7,85	4,58	4,98	5,69
Heating capacity (2)	kW	10,19	11,52	13,73	-	-	-
Heating capacity (3)	kW	17,01	19,22	22,90	8,57	9,41	10,39
Sound Power Level (4)	dB(A)	54,0	58,0	62,0	54,0	58,0	62,0
Sound Pressure Level (4)	dB(A)	45,0	49,0	53,0	45,0	49,0	53,0

Nominal airflow (0)	m³/h	1100	1250	1510	1100	1250	1510
Total cooling capacity (1)	kW	9,01	10,24	12,17	6,90	7,60	8,69
Sensible cooling capacity (1)	kW	5,91	6,65	7,85	4,58	4,98	5,69
Heating capacity (2)	kW	10,19	11,52	13,73	-	-	-
Heating capacity (3)	kW	17,01	19,22	22,90	8,57	9,41	10,39
Sound Power Level (4)	dB(A)	54,0	58,0	62,0	54,0	58,0	62,0
Sound Pressure Level (4)	dR(A)	45.0	49 N	53.0	45.0	49 N	53.0

- CD=3R & 2+1R Maximum speed
  Air: 27° C, 50 % Water in: 7 / 12° C
  Air: 20° C Water in 50° C same water flow as cooling
  Air: 20° C Water in 70 / 60° C
  Lw: octave band center frequency Lp=Lw-9dB(A)
- 8,07 5,99 kW 14,34 kW 23,97 10,93 dB(A) 61,0 61,0 dB(A) 52.0 52,0

2 pipes

126

1620

12,48

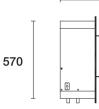
- CD=3R & 2+1R Voltage 10 Vdc Air: 27° C, 50 % Water In:  $7 / 12^\circ$  C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C . Lev. Octave band center frequency Lp=Lw-9dB(A)

CC, CC-EC 4-way coanda

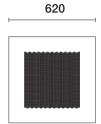
- condensing pump, non-return valve and float included
- · easily removable and washable filter
- 2 or 4 pipe systems
- coil with 2, 3 or 2+1 rows
- AC-motor (CC) and EC-motor (CC-EC)
- remote IR control or wall thermostat (on request)
- electric element and safety contactor (on request)
- fresh & adjacent room air spigot (on request)
- panel made of coated galvanized steel







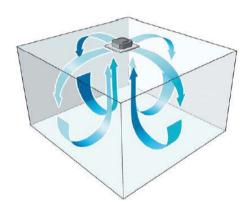
250



620





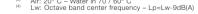


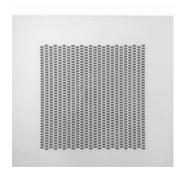
Size (single)	CC	2 pipes					4 pi	oes	
		2CC031	2CC049	3CC065	3CT075	2CC031	2CC049	3CC065	3CC075
Nominal airflow (0)	m³/h	525	675	720	855	525	675	720	855
Total cooling capacity (1)	kW	2,90	4,55	6,01	6,97	2,90	4,55	4,98	5,63
Sensible cooling capacity (1)	kW	1,83	2,98	3,87	4,44	1,83	2,98	3,18	3,58
Heating capacity (2)	kW	3,52	5,51	6,67	7,77	-	-	-	-
Heating capacity (3)	kW	5,93	9,24	11,12	12,95	4,91	5,78	6,07	6,77
Sound Power Level Lw (4)	dB(A)	48,4	56,4	58,5	61,5	48,4	56,4	58,5	61,5
Sound Pressure Level Lp (4)	dB(A)	39,4	47,4	49,5	52,5	39,4	47,4	49,5	52,5

CC-EC	2 p	ipes	4 pip	es
	2CC049	3CC075	2CC049	3CC075
m³/h	650	800	650	800
kW	4,40	6,57	4,40	5,33
kW	2,90	4,22	2,90	3,43
kW	5,34	7,33	-	-
kW	8,94	12,25	5,74	6,54
dB(A)	55,5	60,5	55,5	58,5
dB(A)	46,5	51,5	46,5	51,5

- 2CC=2R & 2+1R / 3CC=3R & 2+1R Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

2CC=2R & 2+1R  $_{1}$  3CC=3R & 2+1R  $_{2}$  Voltage 10 Vdc Air. 27° C, 50 % - Water in: 7 / 12° C Air. 20° C - Water in 50° C same water flow as cooling Air. 20° C - Water in 70 / 60° C Lev. Octave band center frequency – Lp=Lw-9dB(A)







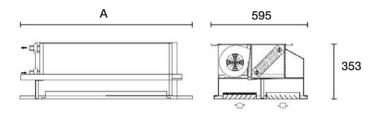
CS single 2-way

- easily removable and washable filter
- 2 or 4 pipe systemscoil with 3 or 2+1 rows
- AC-motor
- fresh air spigot (on request)

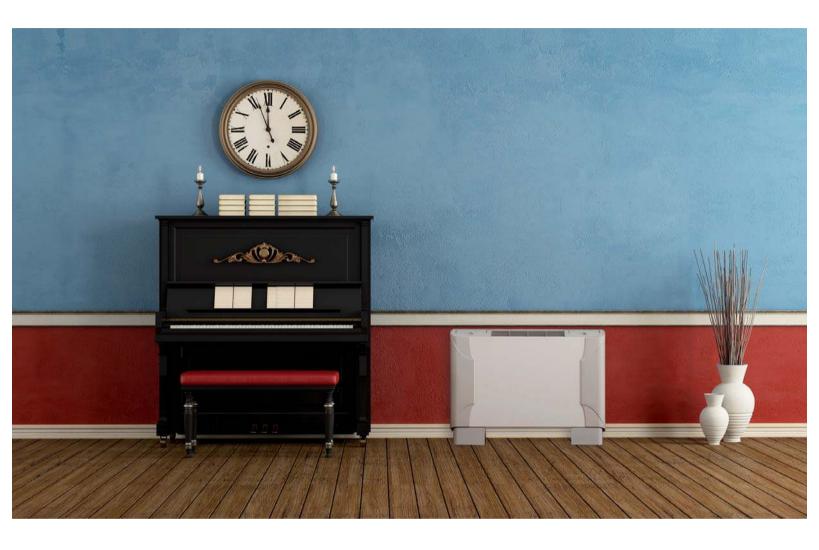
Size	CS	30	35	40	50
Nominal airflow (0)	m³/h	430	470	770	850
Total cooling capacity (1)	kW	2,84	3,04	4,66	5,07
Sensible cooling capacity (1)	kW	1,86	2,00	3,10	3,34
Heating capacity (2)	kW	3,43	3,70	5,78	6,29
Heating capacity (3)	kW	5,77	6,22	9,79	10,59
Sound Power Level Lw (4)	dB(A)	52,8	53,2	55,6	56,8
Sound pressure Level Lp (4)	dB(A)	43,8	44,2	46,6	48,8



3R (10T) - Maximum speed
Air: 27° C, 50 % - Water in: 7 / 12° C
Air: 20° C - Water in 50° C same water flow as cooling
Air: 20° C - Water in 70 / 60° C
Lw: octave band center frequency - Lp=Lw-9dB(A)







Bini Clima decorative units with their unique design are the optimal solution for room installation in hotels, offices, hospitals, school etc.

Newest technologies, flexibility for special requirements, wide performance range, effective control system to lower energy consumption, low noise, clean air (air filtration), effective air exchange, design, production quality and long lasting lifetime are the main advantages.





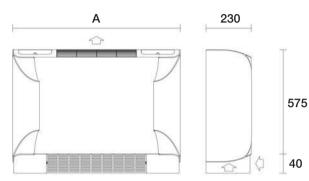


#### vertical or horizontal

- FB vertical bottom intake and vertical discharge with ABS-grille
- FBH horizontal rear inake and frontal discharge with ABS-grille
- easily removable G2 (MERV 2-4) filter
- 2 or 4 pipe systems
- coil with 3 or 3+1 rows
- drain pan insulated 5 mm
- AC-motor

Size	FB	02	03	04	06
Nominal airflow (0)	m³/h	370	505	700	995
Total cooling capacity (1)	kW	2,46	3,78	5,32	7,40
Sensible cooling capacity (1)	kW	1,74	2,48	3,43	4,76
Heating capacity (2)	kW	3,14	4,43	6,08	8,58
Heating capacity (3)	kW	5,31	7,44	10,16	14,33
Sound Power Level Lw (4)	dB(A)	49,2	53,2	51,2	56,1
Sound pressure Level Lp (4)	dB(A)	40,2	44,2	42,2	47,1
Width "A"	mm	840	1040	1240	1440

- 3R (10T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)





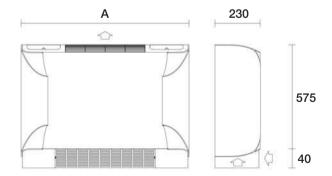


- FE-MV vertical bottom intake and vertical discharge with ABS-grille
- FE-MH horizontal rear inake and frontal discharge with ABS-grille
- easily removable G2 (MERV 2-4) filter
- 2 or 4 pipe systems
- coil with 3 or 3+1 rows
- drain pan insulated 5 mm
- EC-motor
- version without casing vertical FE-NV & horizontal FE-NH (on request)

Size	FE	02A	03	04	06A
Nominal airflow (0)	m³/h	495	540	745	875
Total cooling capacity (1)	kW	2,16	3,12	4,55	5,36
Sensible cooling capacity (1)	kW	1,75	2,15	3,02	3,58
Heating capacity (2)	kW	3,26	4,04	5,64	6,68
Heating capacity (3)	kW	5,78	6,87	9,52	11,30
Sound Power Level Lw (4)	dB(A)	56,7	57,0	54,6	57,3
Sound pressure Level Lp (4)	dB(A)	47,7	48,0	45,6	48,3
Width "A"	mm	840	1040	1240	1440

- 3R (10T) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in: 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

#### vertical or horizontal



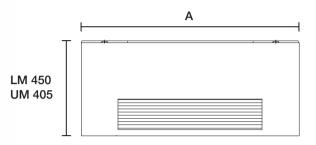
#### LM, UM

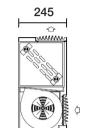




## vertical - low & ultralow height

- frontal intake and vertical discharge (with ABS-grilles)
- filter directly mounted on the intake-grille
- 2 or 4 pipe systems
- coil with 3, 4 or 3+1 rows
- drain pan insulated 5 mm
- AC-motor
- version without casing LI & UI (on request)





Size	LM	02	03	04	06	08
Nominal airflow (0)	m³/h	370	505	700	995	1360
Total cooling capacity (1)	kW	2,46	3,78	5,32	7,40	10,29
Sensible cooling capacity (1)	kW	1,74	2,48	3,43	4,76	6,57
Heating capacity (2)	kW	3,14	4,43	6,08	8,58	11,81
Heating capacity (3)	kW	5,31	7,44	10,16	14,33	19,72
Sound Power Level Lw (4)	dB(A)	49,2	53,2	51,2	56,1	58,6
Sound pressure Level Lp (4)	dB(A)	40,2	44,2	42,2	47,1	49,6
Width "A"	mm	840	1040	1240	1440	1840

Size	UM	02	03	04	06
Nominal airflow (0)	m³/h	370	505	700	995
Total cooling capacity (1)	kW	2,60	3,86	5,19	7,19
Sensible cooling capacity (1)	kW	1,76	2,51	3,39	4,72
Heating capacity (2)	kW	3,17	4,46	6,06	8,52
Heating capacity (3)	kW	5,33	7,47	10,14	14,30
Sound Power Level Lw (4)	dB(A)	49,2	53,2	51,2	56,1
Sound pressure Level Lp (4)	dB(A)	40,2	44,2	42,2	47,1
Width "A"	mm	840	1040	1240	1440

- 3R (10T) Maximum speed
  Air: 27° C, 50 % Water in: 7 / 12° C
  Air: 20° C Water in 50° C same water flow as cooling
  Air: 20° C Water in 70 / 60° C
  I w: octave band center frequency Lp=Lw-9dB(A)

- 4R (6T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

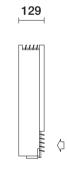
#### **SLIM**



## vertical - slim

- frontal intake and vertical discharge (with ABS-grilles)
- filter directly mounted on the intake-grille
- 2 or 4 pipe systems
- coil with 4 or 3+1 rows
- drain pan insulated 5 mm
- AC-motor
- version without casing UI (on request)

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Size	SLIM	1
Nominal airflow (0)	m³/h	160
Total cooling capacity (1)	kW	0,75
Sensible cooling capacity (1)	kW	0,61
Heating capacity (2)	kW	0,99
Heating capacity (3)	kW	1,55
Sound Power Level Lw (4)	dB(A)	44
Sound pressure Level Lp (4)	dB(A)	35
Width "A"	mm	684

320	460	580
1,50	2,20	3,10
1,25	1,90	2,60
2,00	2,80	4,20
3,10	4,60	6,30
44	44	44
35	35	35
894	1094	1294

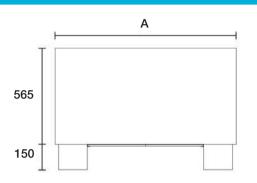






#### vertical

- bottom intake and vertical discharge with Alu-grille
- easily removable G3 (MERV 2-4) filter
- 2 or 4 pipe systems
- coil with 3, 4 or 3+1 rows
- drain pan insulated 5 mm
- AC-motor (CKI) and EC-motor (CMV)





Size	CKI	09	11	17	20	23	32
Nominal airflow (0)	m³/h	710	990	1460	1550	2140	2625
Total cooling capacity (1)	kW	4,97	7,17	10,42	11,52	15,50	20,28
Sensible cooling capacity (1)	kW	3,29	4,72	6,79	7,51	10,05	12,98
Heating capacity (2)	kW	6,00	8,50	12,34	13,49	18,21	23,14
Heating capacity (3)	kW	10,04	14,23	20,70	22,58	30,48	38,62
Sound Power Level Lw (4)	dB(A)	60,0	64,4	58,8	62,7	64,7	67,4
Sound pressure Level Lp (4)	dB(A)	51,0	55,4	49,8	53,7	55,7	58,4
Width "A"	mm	800	1040	1240	1440	1640	2040

CMV	09	11	17	20M	23	32M
m³/h	950	1240	1425	1720	2600	3015
kW	5,00	6,93	8,72	10,65	15,29	18,72
kW	3,51	4,78	5,81	7,05	10,12	12,24
kW	6,62	8,95	10,79	13,12	19,00	22,77
kW	11,34	15,28	18,21	22,15	32,13	38,33
dB(A)	64,1	65,2	68,5	65,1	71,5	69,2
dB(A)	55,1	56,2	59,5	56,1	62,5	60,2
mm	800	1040	1240	1440	1640	2040

- 4R (10T) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: Octave band center frequency Lp=Lw-9dB(A)

- 4R (10T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

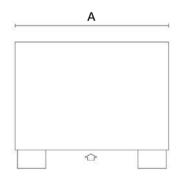
# TIM, TIM-EC





#### vertical

- bottom intake and vertical discharge with Alu-grille
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- AC-motor (TIM) and EC-motor (TIM-EC)



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	875
	150

Size	TIM	20	25	30	35
Nominal airflow (0)	m³/h	2315	3290	3700	3955
Total cooling capacity (1)	kW	15,68	21,46	24,72	27,07
Sensible cooling capacity (1)	kW	10,04	13,73	15,86	17,31
Heating capacity (2)	kW	18,66	25,75	29,46	32,03
Heating capacity (3)	kW	31,25	43,23	49,40	53,70
Sound Power Level Lw (4)	dB(A)	69,1	69,1	71,5	72,5
Sound pressure Level Lp (4)	dB(A)	60,1	60,1	62,5	63,5
Width "A"	mm	1050	1250	1450	1650

- 4R (16T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

TIM-EC	20	25	30	35
m³/h	2475	3060	3705	4185
kW	15,06	18,76	22,79	26,05
kW	9,66	12,02	14,58	16,60
kW	19,34	24,01	29,09	33,07
kW	32,67	40,54	49,09	55,79
dB(A)	68,9	64,9	69,1	70,3
dB(A)	59,9	55,9	60,1	61,3
mm	1050	1250	1450	1650

- 4R (161) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-9dB(A)

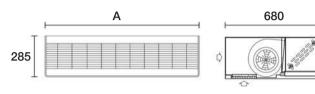
#### CKO, CMH





#### horizontal

- bottom intake or rear intake (on request) and horizontal discharge
- filter directly mounted on the Alu-intake-grille
- 2 or 4 pipe systems
- coil with 3, 4 or 3+1 rows
- drain pan insulated 5 mm
- AC-motor (CKO) and EC-motor (CMH)



Size	СКО	09	11	17	20	23	32
Nominal airflow (0)	m³/h	710	990	1460	1550	2140	2625
Total cooling capacity (1)	kW	4,97	7,17	10,42	11,52	15,50	20,28
Sensible cooling capacity (1)	kW	3,29	4,72	6,79	7,51	10,05	12,98
Heating capacity (2)	kW	6,00	8,50	12,34	13,49	18,21	23,14
Heating capacity (3)	kW	10,04	14,23	20,70	22,58	30,48	38,62
Sound Power Level Lw (4)	dB(A)	60,0	64,4	58,8	62,7	64,7	67,4
Sound pressure Level Lp (4)	dB(A)	51,0	55,4	49,8	53,7	55,7	58,4
Width "A"	mm	800	1040	1240	1440	1640	2040

СМН	09	11	17	20M	23	32M
m³/h	950	1240	1425	1720	2600	3015
kW	5,00	6,93	8,72	10,65	15,29	18,72
kW	3,51	4,78	5,81	7,05	10,12	12,24
kW	6,62	8,95	10,79	13,12	19,00	22,77
kW	11,34	15,28	18,21	22,15	32,13	38,33
dB(A)	64,1	65,2	68,5	65,1	71,5	69,2
dB(A)	55,1	56,2	59,5	56,1	62,5	60,2
mm	800	1040	1240	1440	1640	2040

- 4R (10T) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: Octave band center frequency Lp=Lw-9dB(A)

- 4R (10T) Maximum speed Air: 27° C, 50 % Water in:  $7 / 12^{\circ}$  C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70′ 60° C Levi Cotave band center frequency Lp=Lw-9dB(A)

## TOM, TOM-EC

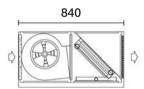




#### horizontal

- bottom intake and vertical discharge with Alu-grille
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- AC-motor (TOM) and EC-motor (TOM-EC)





Size	TOM	20	25	30	35
Nominal airflow (0)	m³/h	2315	3290	3700	3955
Total cooling capacity (1)	kW	15,68	21,46	24,72	27,07
Sensible cooling capacity (1)	kW	10,04	13,73	15,86	17,31
Heating capacity (2)	kW	18,66	25,75	29,46	32,03
Heating capacity (3)	kW	31,25	43,23	49,40	53,70
Sound Power Level Lw (4)	dB(A)	69,1	69,1	71,5	72,5
Sound pressure Level Lp (4)	dB(A)	60,1	60,1	62,5	63,5
Width "A"	mm	1050	1250	1450	1650

- 4R (16T) Maximum speed Air: 27° C, 50 % Water in:  $7 / 12^{\circ}$  C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70′ 60° C Levi cotave band center frequency Lp=Lw-9dB(A)

TOM-EC	20	25	30	35
m³/h	2475	3060	3705	4185
kW	15,06	18,76	22,79	26,05
kW	9,66	12,02	14,58	16,60
kW	19,34	24,01	29,09	33,07
kW	32,67	40,54	49,09	55,79
dB(A)	68,9	64,9	69,1	70,3
dB(A)	59,9	55,9	60,1	61,3
mm	1050	1250	1450	1650

- AR (16T) Voltage 10 Vdc
  Air: 27° C, 50 % Water in: 7 / 12° C
  Air: 20° C Water in 50° C same water flow as cooling
  Air: 20° C Water in 70 / 60° C
  Lw: octave band center frequency Lp=Lw-9dB(A)

## SPECIAL UNITS

High Wall

- 3 speed fan with included IR remote control
- 2 pipe systems
- coil with 2 rows
- signalling LED
- removable, regenerable and washable filter
- auxiliary external or recessed drain pan (on request)
- 2 or 3 way + bypass valves

Size	HW	070	090	180
Nominal airflow (0)	m³/h	360	560	850
Total cooling capacity (1)	kW	2,19	3,31	4,94
Sensible cooling capacity (1)	kW	1,47	2,15	3,30
Heating capacity 2R (2)	kW	2,75	4,10	6,25
Heating capacity 2R (3)	kW	4,67	6,90	10,59
Sound Power Level Lw (4)	dB(A)	48,0	51,0	58,0
Sound pressure Level Lp (4)	dB(A)	39,0	42,0	49,0

- 2R Maximum speed Air:  $27^{\circ}$  C, 50 % Water in: 7 /  $12^{\circ}$  C Air:  $27^{\circ}$  C, 50 % Water in  $50^{\circ}$  C same water flow as cooling Air:  $20^{\circ}$  C Water in 70 /  $60^{\circ}$  C Lev: octave band center frequency Lp=Lw-9dB(A)

850 180 HW070-090 270 940 200 HW180 300



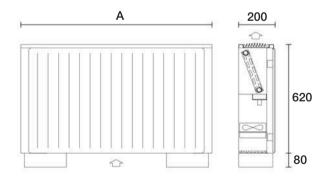


- bottom intake and vertical discharge with Alu-grille
- 3 speed fan
- 2 pipe systems
- coil with 2 rows
- easily removable filter
- drain pan insulated 5 mm
- 2 or 3 way + bypass valves

Size	BR	03
Nominal airflow (0)	m³/h	500
Total cooling capacity (1)	kW	3,14
Sensible cooling capacity (1)	kW	2,04
Heating capacity (2)	kW	3,85
Heating capacity (3)	kW	0,80
Sound Power Level Lw (4)	dB(A)	49,4
Sound pressure Level Lp (4)	dB(A)	40,4
Width "A"	mm	1090

- 2R (10T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C without ventilation Lw: octave band center frequency Lp=Lw-9dB(A)

## Fan coil radiator







Bini Clima ducted units are the optimal solution for *limited space* mainly used for *installation in the false ceiling*.

The **design** of the units and the **optimally selected fans** guarantee **quiet operation** even at high external static pressure.

The units can be vertical or horizontal.



low / medium air flow medium air flow

## FOH, FOH-EC

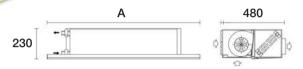




#### horizontal

- rear or bottom intake (on request)
- horizontal discharge
- easily removable G2 (MERV 2-4) filter
- 2 or 4 pipe systems
- coil with 3 or 3+1 rows
- extended drain pan insulated 5 mm
- AC-motor (FOH) and EC-motor (FOH-EC)
- vertical version FIH (AC) & FIH-EC (EC)

FOH 50 Pa FOH-EC 90 Pa



Size (data - ESP 0 Pa)	FOH	025	035	050	070	090
Nominal airflow (0)	m³/h	450	505	900	1160	1360
Total cooling capacity (1)	kW	2,89	3,78	6,55	8,64	10,29
Sensible cooling capacity (1)	kW	2,02	2,48	4,20	5,58	6,57
Heating capacity (2)	kW	3,68	4,43	7,62	10,04	11,81
Heating capacity (3)	kW	6,25	7,44	12,73	16,79	19,72
Sound Power Level Lw (4)	dB(A)	54,0	53,2	56,8	58,6	58,6
Sound pressure Level Lp (4)	dB(A)	36,0	35,2	38,6	40,6	40,6
Width "A"	mm	700	900	1100	1500	1700

1360	
10,29	
6,57	
11,81	
19,72	
58,6	
40,6	
1700	

FOH-EC	025	035	050	070	090
m³/h	530	570	785	1065	1415
kW	2,32	3,26	4,74	6,44	8,62
kW	1,84	2,25	3,16	4,34	5,63
kW	3,21	4,23	5,88	8,08	10,57
kW	5,62	7,19	9,91	13,67	17,84
dB(A)	58,4	58,9	56,7	60,7	61,8
dB(A)	40,4	40,9	38,7	42,7	43,8
mm	700	900	1100	1500	1700

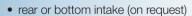
- 3R (10T) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: Octave band center frequency Lp=Lw-18dB(A)

- $3R\ (10T)$  Maximum speed Air:  $27^{\circ}$  C, 50 % Water in 7 /  $12^{\circ}$  C Air:  $20^{\circ}$  C Water in 50° C same water flow as cooling Air:  $20^{\circ}$  C Water in 70 /  $60^{\circ}$  C Water in 70 /  $60^{\circ}$  C Water in 70 /  $60^{\circ}$  C Lp=Lw-18dB(A)





#### horizontal



horizontal discharge

• easily removable G2 (MERV 2-4) filter

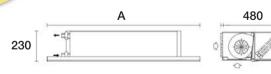
• 2 or 4 pipe systems

• coil with 3 or 3+1 rows

• extended drain pan insulated 5 mm

AC-motor

FK 120 Pa



Size (data - ESP 0 P	a) FK	600	700
Nominal airflow (0)	m³/h	1270	1460
Total cooling capacity	(1) kW	8,91	10,30
Sensible cooling capacity	(1) kW	5,72	6,63
Heating capacity (2)	kW	10,48	12,14
Heating capacity (3)	kW	17,59	20,35
Sound Power Level Lw	4) dB(A)	69,1	69,3
Sound pressure Level Lp	(4) dB(A)	51,1	51,3
Width "A"	mm	1300	1500

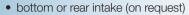
- 3R (10T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency Lp=Lw-18dB(A)

## CKH, CEH



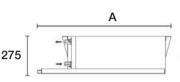


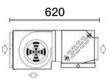
#### horizontal



- horizontal discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 3, 4 or 3+1 rows
- extended drain pan insulated 5 mm
- AC-motor (CKH) and EC-motor (CEH)
- vertical version CKV (AC) & CEV (EC)







Size (data - ESP 0 Pa)	CKH	09	11	17	20	23	32
Nominal airflow (0)	m³/h	830	990	1680	1850	2490	2825
Total cooling capacity (1)	kW	5,59	7,17	11,55	13,24	17,38	21,48
Sensible cooling capacity (1)	kW	3,68	4,72	7,54	8,59	12,23	13,75
Heating capacity (2)	kW	6,82	8,50	13,83	15,63	20,63	24,62
Heating capacity (3)	kW	11,47	14,23	23,22	26,17	34,58	41,11
Sound Power Level Lw (4)	dB(A)	63,3	64,4	66,9	66,7	68,1	69,1
Sound pressure Level Lp (4)	dB(A)	45,3	46,4	48,9	48,7	50,1	51,1
Width "A"	mm	700	900	1100	1300	1500	1900

4R (10T) - Maximum speed Air: 27° C, 50 % - Water in: 7 / 12° C Air: 20° C - Water in 50° C same water flow as cooling Air: 20° C - Water in 70 / 60° C Lw: octave band center frequency - Lp=Lw-18dB(A)

CEH	09	11	17	20M	23	32M
m³/h	948	1238	1422	1718	2595	3012
kW	5,03	6,91	8,71	10,67	15,33	18,35
kW	3,51	4,77	5,80	7,05	10,12	12,14
kW	6,60	8,96	10,77	13,11	18,99	22,60
kW	11,31	15,26	18,17	22,12	32,07	38,15
dB(A)	64,9	66,0	68,9	63,5	71,3	69,0
dB(A)	46,9	48,0	50,9	45,5	53,3	51,0
mm	700	900	1100	1300	1500	1900

- 4R (10T) Voltage 10 Vdc
  Air: 27° C, 50 % Water in: 7 / 12° C
  Air: 20° C Water in 50° C same water flow as cooling
  Air: 20° C Water in 70 / 60° C
  Lw: Octave band center frequency Lp=Lw-18dB(A)

#### TO-EC

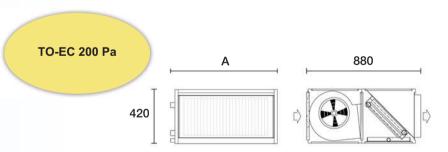




#### horizontal

#### rear intake and horizontal discharge

- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- EC-motor

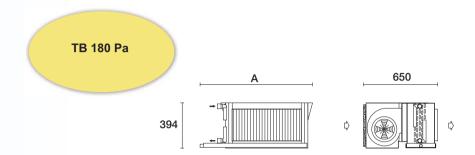


Size (data - ESP 0 Pa)	TO-EC	20	25	30	35	50	60
Nominal airflow (0)	m³/h	2500	3060	3745	4180	5225	6870
Total cooling capacity (1)	kW	15,14	18,76	22,98	26,01	31,86	40,12
Sensible cooling capacity (1)	kW	9,74	12,05	14,68	16,59	20,30	25,66
Heating capacity (2)	kW	19,49	24,00	29,31	33,01	40,63	51,88
Heating capacity (3)	kW	32,94	40,54	49,52	55,66	68,57	87,74
Sound Power Level Lw (4)	dB(A)	68,9	64,9	69,1	70,3	69,9	74,6
Sound pressure Level Lp (4)	dB(A)	50,9	46,9	51,1	52,3	51,9	56,6
Width "A"	mm	1000	1200	1400	1600	1800	2000

- 4R (67) Voltage 10 Vdc  $Air. <math display="inline">27^{\circ}$  C, 50 % Water in: 7 /  $12^{\circ}$  C  $Air. <math display="inline">27^{\circ}$  C, 50 % Water in  $50^{\circ}$  C same water flow as cooling  $Air. 20^{\circ}$  C Water in 70 /  $60^{\circ}$  C U C Water in 70 /  $60^{\circ}$  C U C Water in 70 /  $60^{\circ}$  C U –

vertical

- bottom intake and vertical discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- EC-motor



Size (data - ESP 0 Pa)	ТВ	10	11	22	23	31	32
Nominal airflow (0)	m³/h	1530	1720	2990	3300	4390	4880
Total cooling capacity (1)	kW	10,97	12,02	21,88	23,56	31,50	33,96
Sensible cooling capacity (1)	kW	7,14	7,77	14,08	15,15	20,15	21,82
Heating capacity (2)	kW	12,96	14,26	25,52	27,69	36,85	40,14
Heating capacity (3)	kW	21,72	23,94	42,68	46,36	61,67	67,29
Sound Power Level Lw (4)	dB(A)	69,0	68,7	72,2	72,1	73,5	73,3
Sound pressure Level Lp (4)	dB(A)	51,0	50,7	54,2	54,1	55,5	55,3
Width "A"	mm	980	980	1580	1580	1980	1980

<sup>4</sup>R (16T) - Voltage 10 Vdc Air: 27° C, 50 % - Water In: 7 / 12° C Air: 20° C - Water In 50° C same water flow as cooling Air: 20° C - Water in 70 / 60° C Lev-Ctave band center frequency – Lp=Lw-18dB(A)



Bini Cima double skin self-supporting units are the optimal solution for *limited space*, mainly used for *installation in the false ceiling*.

Thanks to the *double skin construction* (23 mm soundabsorbing rock wool insulation with 20 kg/m³) the unit can handle *high static pressure drops* with reduced noise values.



low / medium air flow medium air flow high air flow

#### FH-DS, FH-DS-EC





- 25 mm standard panel with rock wool (20 kg/m³)
- rear intake and horizontal discharge
- easily removable G2 (MERV 2-4) filter
- 2 or 4 pipe systems
- coil with 3 or 3+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- AC-motor (FH-DS) and EC-motor (FH-DS-EC)

FH-DS 50 Pa FH-DS-EC 90 Pa	A	750
335		¢

Size (data - ESP 0 Pa	FH-DS	025	035	050	070	090
Nominal airflow (0)	m³/h	450	505	900	1160	1360
Total cooling capacity (1)	kW	2,89	3,78	6,55	5,64	10,29
Sensible cooling capacity (1)	kW	2,02	2,48	4,20	5,58	6,57
Heating capacity (2)	kW	3,68	4,43	7,62	10,04	11,81
Heating capacity (3)	kW	6,25	7,44	12,73	16,79	19,72
Sound Power Level Lw (4)	dB(A)	42,4	44,7	44,1	48,4	47,9
Width "A"	mm	600	800	1000	1400	1600

FH-DS-EC	025	035	050	070	090
m³/h	530	570	785	1065	1415
kW	2,32	3,26	4,74	6,44	8,62
kW	1,84	2,25	3,16	4,34	5,63
kW	3,21	4,23	5,88	8,08	10,57
kW	5,62	7,19	9,91	13,78	17,84
dB(A)	49,9	50,4	48,5	51,9	52,8
mm	600	800	1000	1400	1600

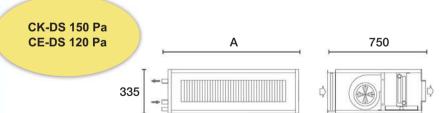
- 3R (10T) Voltage 10 Vdc
  Air: 27° C, 50 % Water in: 7 / 12° C
  Air: 20° C Water in 50° C same water flow as cooling
  Air: 20° C Water in 70 / 60° C
  Lw: Octave band center frequency

## CK-DS, CE-DS





- 25 mm standard panel with rock wool (20 kg/m³)
- rear intake and horizontal discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 3, 4 or 3+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- AC-motor (CK-DS) and EC-motor (CE-DS)



Size (data - ESP 0 Pa)	CK-DS	09	11	17	20	23	32
Nominal airflow (0)	m³/h	830	990	1680	1850	2490	2825
Total cooling capacity (1)	kW	5,59	7,17	11,55	13,24	17,38	21,48
Sensible cooling capacity (1)	kW	3,68	4,72	7,54	8,59	12,23	13,75
Heating capacity (2)	kW	6,82	8,50	13,83	15,63	20,63	24,62
Heating capacity (3)	kW	11,47	14,23	23,22	26,17	34,58	41,11
Sound Power Level Lw (4)	dB(A)	46,0	46,2	50,4	50,7	53,2	54,7
Width "A"	mm	600	800	1000	1200	1400	1800

CE-DS	09	11	17	20M	23	32M
m³/h	948	1238	1422	1718	2595	3012
kW	5,03	6,91	8,71	10,67	15,33	18,35
kW	3,51	4,77	5,80	7,05	10,12	12,14
kW	6,60	8,96	10,77	13,11	18,99	22,60
kW	11,31	15,26	18,17	22,12	32,07	38,15
dB(A)	52,8	53,7	56,1	53,3	58,1	54,7
mm	600	800	1000	1200	1400	1800

- 4R (10T) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency

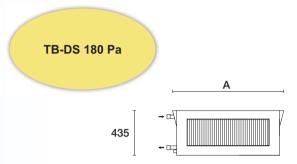
#### TB-DS

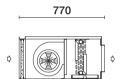




#### horizontal

- rear intake and horizontal discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- extended drain pan insulated 5 mm
- AC-motor





Size (data - ESP 0 Pa)	TB-DS	10	11	22	23	31	32
Nominal airflow (0)	m³/h	1530	1720	2990	3300	4390	4880
Total cooling capacity (1)	kW	10,97	12,02	21,88	23,56	31,50	33,96
Sensible cooling capacity (1)	kW	7,14	7,77	14,08	15,15	20,15	21,82
Heating capacity (2)	kW	12,96	14,26	25,52	27,69	36,85	40,14
Heating capacity (3)	kW	21,72	23,94	42,68	46,36	61,67	67,29
Sound Power Level Lw (4)	dB(A)	61,6	61,3	64,5	64,3	65,6	65,3
Width "A"	mm	935	935	1535	1535	1935	1935

- 4R (14T) Maximum speed Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: Octave band center frequency Lp=Lw-18dB(A)

#### TO-DS-EC





- 25 mm standard panel with rock wool (20 kg/m³)
- rear intake and horizontal discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- EC-motor

TO-DS-EC 200 Pa		Α	990
10-D3-EC 200 Fa	<b> </b>		
	490 →□		
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Size (data - 0 Pa)	TO-DS-EC	20	25	30	35	50	60
Nominal airflow (0)	m³/h	2500	3060	3745	4180	5225	6870
Total cooling capacity	1) kW	15,14	18,76	22,98	26,01	31,86	40,12
Sensible cooling capacity	1) kW	9,74	12,05	14,68	16,59	20,30	25,66
Heating capacity (2)	kW	19,49	24,00	29,31	33,01	40,63	51,88
Heating capacity (3)	kW	32,94	40,54	49,52	55,66	68,57	87,74
Sound Power Level Lw (	dB(A)	58,9	55,5	59,1	60,1	59,8	63,8
Width "A"	mm	1000	1200	1400	1600	1800	2000

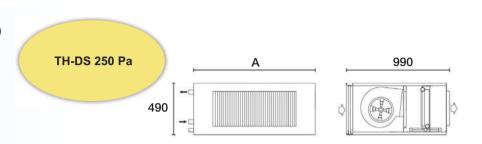
- 4R (16T) Voltage 10 Vdc Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency

#### TH-DS





- 25 mm standard panel with rock wool (20 kg/m³)
- rear intake and horizontal discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 4, 5, 4+1 or 5+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- AC-motor
- single skin version TH (on request)



Size (data - ESP 120 Pa	) TH-DS	20	25	30	35	50	60
Nominal airflow (0)	m³/h	2660	3195	3500	3750	4800	6190
Total cooling capacity (1)	kW	18,71	22,63	25,55	27,83	34,83	43,18
Sensible cooling capacity (1	kW	12,03	14,60	16,42	17,92	22,40	27,79
Heating capacity (2)	kW	22,06	26,68	29,77	32,34	40,67	51,00
Heating capacity (3)	kW	36,98	44,68	49,79	54,08	68,02	85,45
Sound power Level Lw (4)	dB(A)	56,7	59,3	62,5	60,7	59,7	70,2
Width "A"	mm	1000	1200	1400	1600	1800	2000

- 4R (16T) Maximum speed ESP 120 Pa Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flo Air: 20° C Water in 70 / 60° C Lw: cotave band center frequency

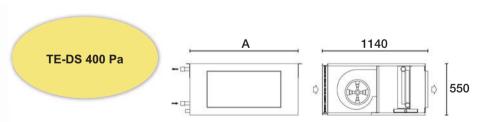
#### TE-DS







- 25 mm standard panel with rock wool (20 kg/m³)
- rear intake and horizontal discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- coil with 5, 6, 5+1 or 6+1 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- EC-motor



Size	(data - ESP 200 Pa)	TE-DS	20	30	60
Nominal airflow (0)		m³/h	2826	4645	7647
Total cooling capacity (1)		kW			
Sensible cooling capacity (1)		kW			
Heating capacity (2)		kW			
Heating capacity (3)		kW	38,13	62,07	101,35
Sound power Level Lw (4)		dB(A)	75,0	78,4	79,5
Width "A"		mm	1000	1400	2000

- 5R (18T) Voltage 10 Vdc ESP 200 Pa Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency

## DOUBLE SKIN AIR HANDLING UNITS



The double skin Bini Clima air handling units are an ideal solution for *civil and industrial applications*.

Designed for *maximum application flexibility*, they are suitable for indoor installation and resolve brilliantly the *fresh air* problem wherever a central air handling unit is not or cannot be installed. The use of one unit on each floor grants a *zone-specific air regulation* and *eliminate the high costs* caused by the installation of a central air handling unit.

Air flow *from 2.500 to 20.000 mæ/h*, *double skin panels* with sound-absorbing insulation, *vertical* or *horizontal* version available.

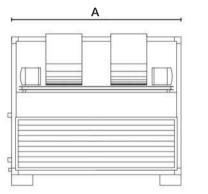
#### DOUBLE SKIN AIR HANDLING UNITS

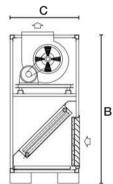
#### TM-DS



## airflow up to 20.000 m<sup>3</sup>/h

- 25 mm standard panel with rock wool (20 kg/m³)
- TMH-DS rear intake and horizontal discharge
- TMV-DS frontal intake and vertical discharge
- easily removable G3 (MERV 5) filter
- 2 or 4 pipe systems
- 2 pipe system: coil with 4, 5 or 6 rows
- 4 pipe system: coil with 4+1, 4+2, 5+1, 5+2, 6+1 or 6+2 rows
- drain pan insulated 5 mm
- auxiliary drain pan insulated 5 mm (on request)
- 3-phase AC-motor
- supporting feet 100 mm included





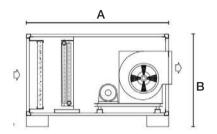
VERTICAL VERSION

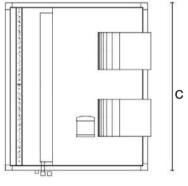
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Size (data - ESP 200 )	TM-DS	025	040	060	080	100	130	160	200
Nominal airflow (0)	m³/h	2500	4000	6000	8000	10500	13000	16000	20000
Total cooling capacity (1)	kW	19,41	31,01	47,23	62,85	81,74	104,00	127,19	159,83
Sensible cooling capacity (1)	kW	12,86	20,45	30,82	41,16	53,76	67,54	82,91	103,59
Heating capacity (2)	kW	22,58	35,99	54,17	72,28	94,56	118,23	145,22	181,54
Heating capacity (3)	kW	37,78	60,19	90,47	120,79	158,11	197,37	242,53	302,96
Sound power Level Lw (4)	dB(A)	75,6	77,7	74,7	82,8	83,3	82,4	82,7	82,1
TMH Width "A"	mm	1150	1350	1650	1850	1950	2050	2150	2250
TMH Height "B"	mm	600	700	850	900	950	1050	1150	1250
TMH Length "C"	mm	900	1050	1300	1550	1700	1900	2050	2250
TMV Width "A"	mm	600	700	850	1050	1100	1250	1300	1400
TMV Height "B"	mm	1250	1400	1500	1450	1550	1700	1800	2000
TMV Length "C"	mm	900	1050	1300	1550	1700	1900	2050	2250

- 6R Maximum speed ESP 200 Pa Air: 27° C, 50 % Water in: 7 / 12° C Air: 20° C Water in 50° C same water flow as cooling Air: 20° C Water in 70 / 60° C Lw: octave band center frequency







HORIZONTAL VERSION

#### CONTROLS AND REGULATIONS

# **SERIES B300-304**

#### **Electronic multifunction thermostat BMS (Building Management System)**



Communication protocol

**BacNet & ModBus** 

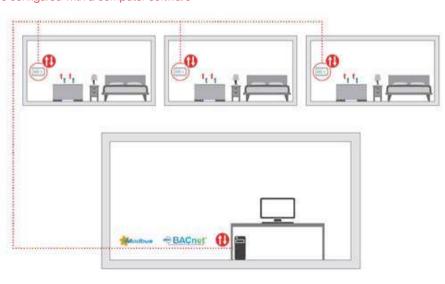


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- A300-304: electronic thermostat without BMS
- suitable for 3-speed AC-motors & variable EC-motors (with signal 0...10 Vdc)
- summer / winter & set-temperature control
- regulated & continuous ventilation
- suitable for 2 or 4 pipe systems / with or without valves / with or without minimum water temperature thermostat
- temperature sensor fitted as standard & humidity sensor (on request)
- clock (on request)
- up to 5 digital outputs & 3 analog outputs
- back-lit LCD-display
- the parameters can be configured with a computer software



USB connection for parameter configuration & software update

#### CONTROLS AND REGULATIONS



#### A630 & A530 - Electronic analog thermostat unit mounted (AC-motors)

3-speed fan switch, summer/winter switch, desired room temperature control, continuous/thermostat controlled ventilation, for 2 or 4 pipes systems, with valve control (A530) or without valve control (A630), with or without minimum water temperature thermostat, with internal or remote temperature sensor.



#### A70 & A70D - Electronic thermostat (AC-motors)

3-speed fan switch, summer/winter switch, desired room temperature control, continuous/thermostat controlled ventilation, for 2 or 4 pipes systems, with or without valve control, with or without minimum water temperature thermostat, with internal or remote temperature sensor. A70 analog, A70D digital.



#### A111 - Electronic digital thermostat (EC motors)

Configurable with 0...10 Vdc for EC-motors, desired room temperature control, summer/winter switch, continuous/thermostat controlled ventilation, for 2 or 4 pipes systems, with or without valve control ON/OFF and modulating (24 Vac), with or without minimum water temperature thermostat, with internal or remote temperature sensor.



#### A94 - Power interface

Power supply 230Vac - controls up to 4 fancoils with 3 speeds.

The signals transmitted form the thermostat respectively switch a relay which controls the wired speed of the motor (max. 3A - 250V for each motor).



#### TEL - IR Remote control for Cassettes & High Wall

3-speed fan switch, desired room temperature control, summer/winter switch, continuous/thermostat controlled ventilation.



#### EE & EH - Electrical heating element (V230/1)

Standard or high capacity heating elements from 700 to 5000 W including security thermostat with manual reset (automatic reset on request) and power contactor, wired to electric box. Dimensions from 350 to 1550 mm. Support for the parallel connection of several heating elements (on request).

## CONTROLS AND REGULATIONS



#### Actuator V230/1

22C (ON/OFF) – NC with thermostatic wax element, (24Vac on request) SMP28 (ON/OFF) – for 3-way globe valves DN from 1" EMUJIC (MODULATING) – actuator 24Vac with LED signal



#### 2 / 3-way valve + bypass

Available for DN ½" and DN ¾" Brass valve body with steel shaft, PN 16



#### 2 / 3-way valve

Available for DN 1" and DN 1 ½"
Brass valve body with steel shaft, PN 16



#### Stop valve, balancing valve, ball valve

Stop valve on the water entry to manually regulate the water flow. Balancing valve on the water exit to balance the water circuit. Ball valve for DN from 1"



#### A49 - Condensate pump

Composed of pump block and detection unit, flow rate 10, 20 and 30 l/h for fancoils with low, medium and high air flow.

#### SOFTWARE



The Bini Clima FCU selection software is developed to select the proper unit for offices, retailers, installers and end users.

It is available in 7 languages: Italian, English, French, German, Spanish, Russian and Dutch.

After setting the operating conditions, it is **simple to select the unit** and to print the **technical data** including **unit dimensions** as well as the **commercial offer**.

Unit and accessory prices, catalogues and technical documentation are integrated in the software.

## REFERENCES UAE & MIDDLE EAST











## REFERENCES ITALY















## REFERENCES EUROPE & NORTH AFRICA



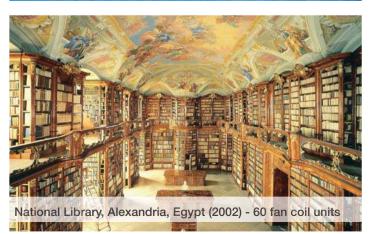












## REFERENCES AUSTRALIA & KUWAIT



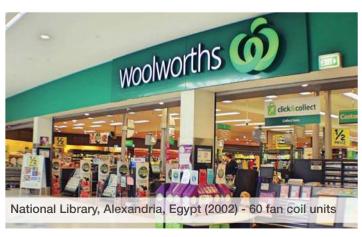






Hilton Sharks Bay Resort, Sharm El Sheikh (1998) - 520 fan coil units





# NOTE

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