



The *modular and ultra-slim AHU* to guarantee perfect solution

Ideal for a *compact installation*

Available in *single-flow or aligned or adjacent dual-flow* versions

Air flow: up to 6 000 m³/h
Available pressure: up to 1 000 Pa

USE

The **AIR COMPACT** air handling unit is a modular ventilation unit, which can be configured to meet all your requirements whilst complying with current standards.

It is available in several versions: single-flow, aligned dual-flow, adjacent dual-flow.

The AIR COMPACT AHU is used for fresh air change, air recirculation, air extraction and air handling using its filtration, heating, cooling, recovery and ventilation functions.

There are three different installation possibilities to meet your needs:

- Horizontal ceiling-mounted version, accessed from underneath,
- Horizontal floor-mounted version, accessed from the top,
- Vertical wall-mounted version, accessed via the front.

It is available in three sizes to meet all your needs and able to handle air flows from 1 000 to 6 000 m³/h. Reduced thickness (400 mm) and great compactness to be fitted into the tightest spaces.

This range is particularly well-suited to tertiary buildings:

- Administration, offices,
- Education facilities, libraries, community centres,
- Bars, hotels, restaurants,
- Shopping centres,
- Nursing homes, healthcare facilities,
- Collective housing.

All installations require ventilation.

RANGE

The range comprises 3 sizes from 1 000 to 6 000 m³/h.

There are four standardised lengths of casing, adapted to the configuration and options selected.

The AHU will therefore comprise one or several casings, depending on your selection; 610, 830, 1 100 and 1 400 mm modules.

CLIMACIAT AIR COMPACT

AIR COMPACT		25	40	60
Assembly		Ceiling- / Floor-mounted / Vertical		
Width/Height		750*400	1 310*400	1 880*400
Nominal air flow (m ³ /h) (Speed: 3.1 m/s across finned row)		2 000	4 000	6 000
"Asynchronous motor NPL technology"	Plug fan	1	1	2
	Electric motor	1	1	2
	Available power	0.55 kW - 4-pole/1.1 kW - 2-pole/1.4 kW - 2-pole		
	Number of inverters	1	1	1
"EC motor EBM technology"	Plug fan	1	1	2
	EC motor	1	1	2
	Available power	1 kW		
Pleated filters		G4 / M5 / F7 HEE / F9 HEE		
Opacimetric filters (short flexible pockets)		M6 / F7		
Opacimetric filters (rigid pockets)		M6 / F7 / F8 / F9		
Hydraulic heating coil		1/2/3 rows	1/2/4 rows	1/2/4 rows
Hydraulic cooling coil		3/4/6 rows		
Direct expansion cooling oil		3/6 rows		
Electric heating coil		15 kW	24 kW	33 kW
Adjacent plate heat exchanger		Yes	Yes	No

DESCRIPTION

Casing

Double-skin panels made from steel sheets, galvanised on both sides, thickness 8/10 mm
RAL 9006 lacquer coated finish on external panels.
M0/A1 fire rating
Mineral wool, thickness 25 mm

Connection and utilities

Hydraulic connection possible on the right or left (to be specified when ordering)

The access doors are positioned according to the choice of model:

- Horizontal ceiling-mounted model: access doors located underneath the unit
- Horizontal floor-mounted model: access doors located on top of the unit
- Vertical model with wall-mounting plate: access doors located on the front of the unit

Heat exchange coil

■ Hydraulic coil

Copper tube, aluminium blade
Choice of 3 coil sizes for each AHU size
Antifreeze thermostat with optional automatic reset
Stainless condensate drain pan

■ Evaporator coil

Copper tube, aluminium blade
Choice of 3 coil sizes for each AHU size
Stainless condensate drain pan

Damper

Uncased external damper
Damper in choice of sealing class 1 or 3, as per EN 1751
Damper thickness 110 mm and height 310 mm
Optional servomotor

Filtration

Filter cell with universal dimensions
Three filtration stages possible per air flow rate
Pleated filters in efficiency class G4, M5, F7 and F9 HPE
Short bag filters in efficiency classes M6 to F7
Rigid bag filters in efficiency classes M6 to F9
Pressure tapping as standard on each filtration stage
Option, pressure switch, pressure gauge, ...

■ Electric heater

Shielded resistors in scrolled finned pipes
2 upper limit safety thermostats: one with automatic reset and one manual
Anti-radiation screen, depending on the upstream and downstream elements

Output power supplied by the electric heaters			
AHU size	Main casing	Additional box	
	2 stages	2 stages	4 stages
25	2 * 7.5 = 15kW	2 * 7.5 = 15kW	4 * 7.5 = 30kW
40	2 * 12 = 24kW	2 * 12 = 24kW	4 * 12 = 48kW
60	2 * 16.5 = 33kW	2 * 16.5 = 33kW	4 * 16.5 = 66kW

Ventilation

"Plug Fan" type direct drive FMA

1 or 2 FMA for each air flow rate, depending on the size and conditions

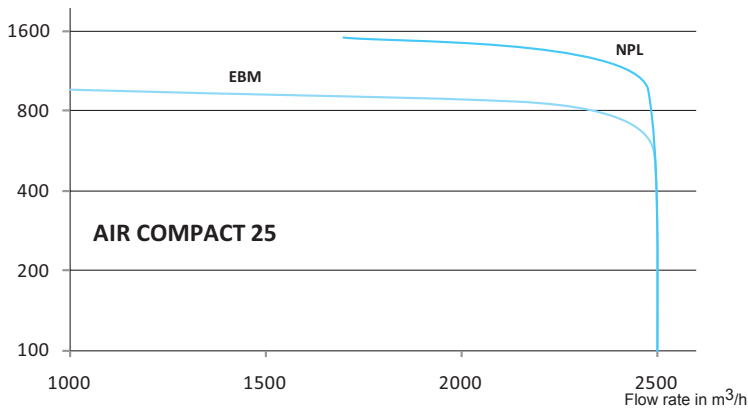
Plug fan combined with a motor at the end of the shaft

AC motor with optional frequency inverter

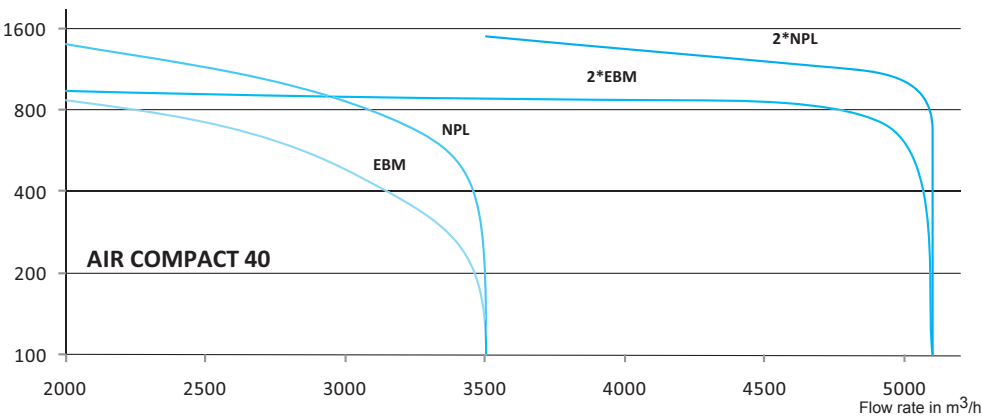
EC motor (electronically commutated motor with built-in variable speed control)

AIR COMPACT		25	40		60
Assembly		Ceiling- / Floor-mounted / Vertical			
Nominal air flow (m ³ /h) (speed: 3.1 m/s across finned row)		2 000	4 000		6 000
"Asynchronous motor NPL technology"	Plug fan	1	1	2	2
	Electric motor	1	1	2	2
	Available power	0.55 kW - 4-pole/1.1 kW - 2-pole/1.4 kW - 2-pole			
	Number of inverters	1	1	1	1
"EC motor EBM technology"	Plug fan	1	1	2	2
	EC motor	1	1	2	2
	Available power	1 kW			

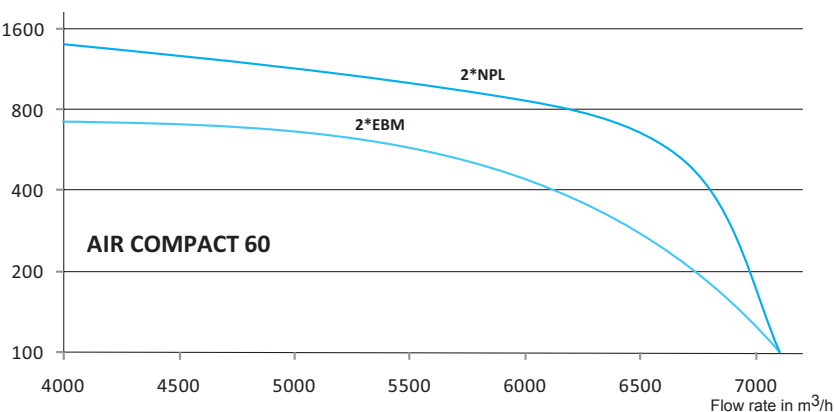
Total pressure (Pa)



Total pressure (Pa)



Total pressure (Pa)



CLIMACIAT AIR COMPACT

Accessories and options

- 2-way mixing box: 3 air flow positions available
- 3-way mixing box
- Angled or straight plenum
- Sound attenuator
- Adjacent plate heat recovery unit (sizes 25 and 40 only)
- Control

- Peripheral options and power terminal block
- Surface-mounted electric heater unit, or delivered unassembled
- Control by factory preprogrammed controller, algorithm created in-house
- Hand-held cabled micro-terminal
- Fault summary contact
- Control by constant flow/constant pressure/CO₂
- Pressure and temperature sensors, depending on the selection
- Numerous options and functions available

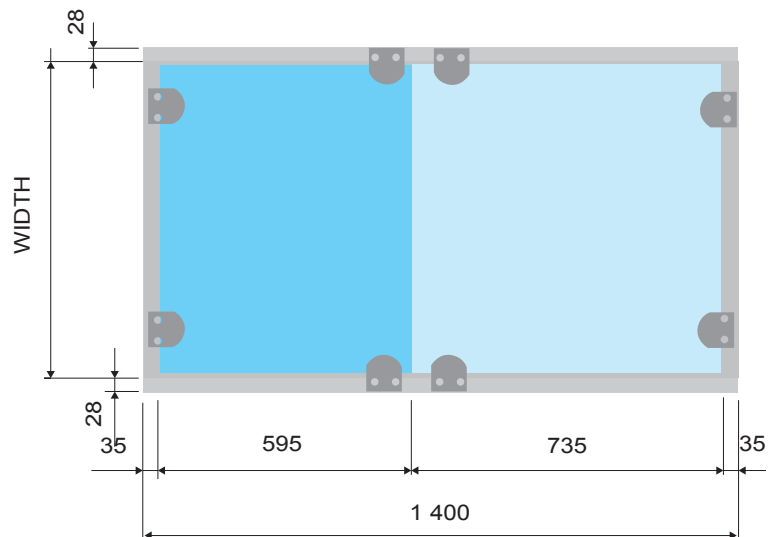
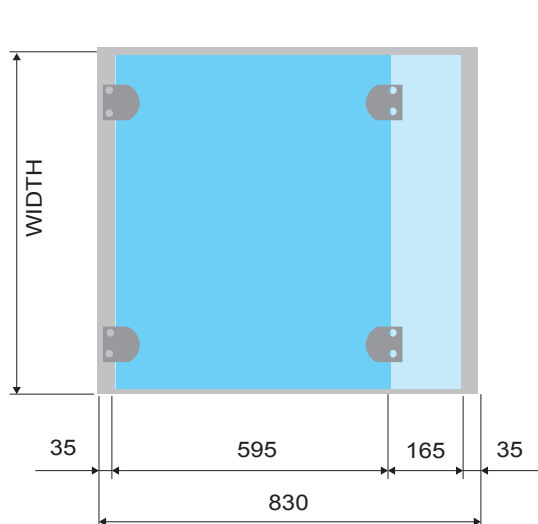
Control

- Electrics box for power, control and internal regulation of the unit, comprising as standard:
 - 3-Ph / 400V power supply + Earth
 - Main disconnect switch
 - Protected transformer
 - Protection and control of all electrical components by a circuit-breaker and contact switch

SPACE REQUIREMENTS AND DIMENSIONS

DIMENSIONAL SPECIFICATIONS			
AHU size	25	40	60
External dimensions (in mm)	750 * 400	1 310 * 400	1 880 * 400
Casing length (in mm)	610 – 830 – 1 100 – 1 400: Four standardised lengths of casing, automatically adapted to the components and options selected		

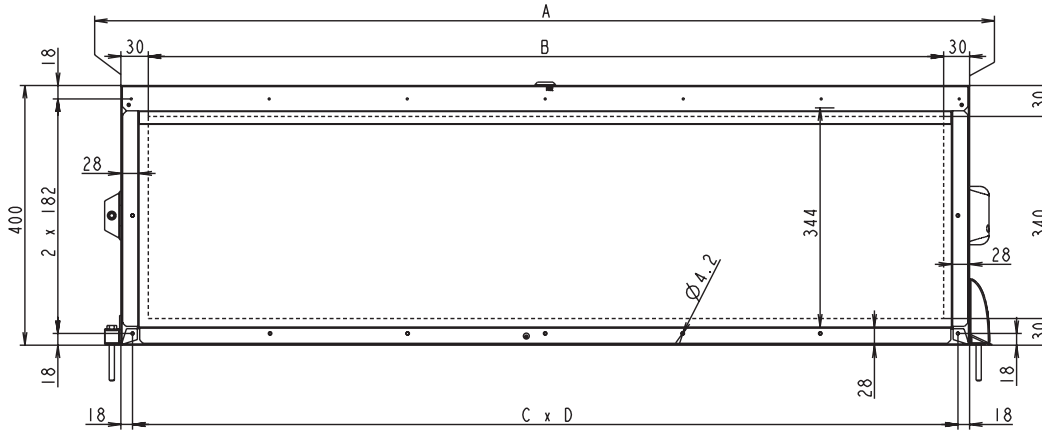
- 610 mm module ▶ 1 x 540 mm door
- 830 mm module ▶ 1 x 595 mm door
- 1 100 mm module ▶ 1 x 595 mm door + 1 x 435 mm door
- 1 400 mm module ▶ 1 x 595 mm door + 1 x 735 mm door



AIR CONNECTION

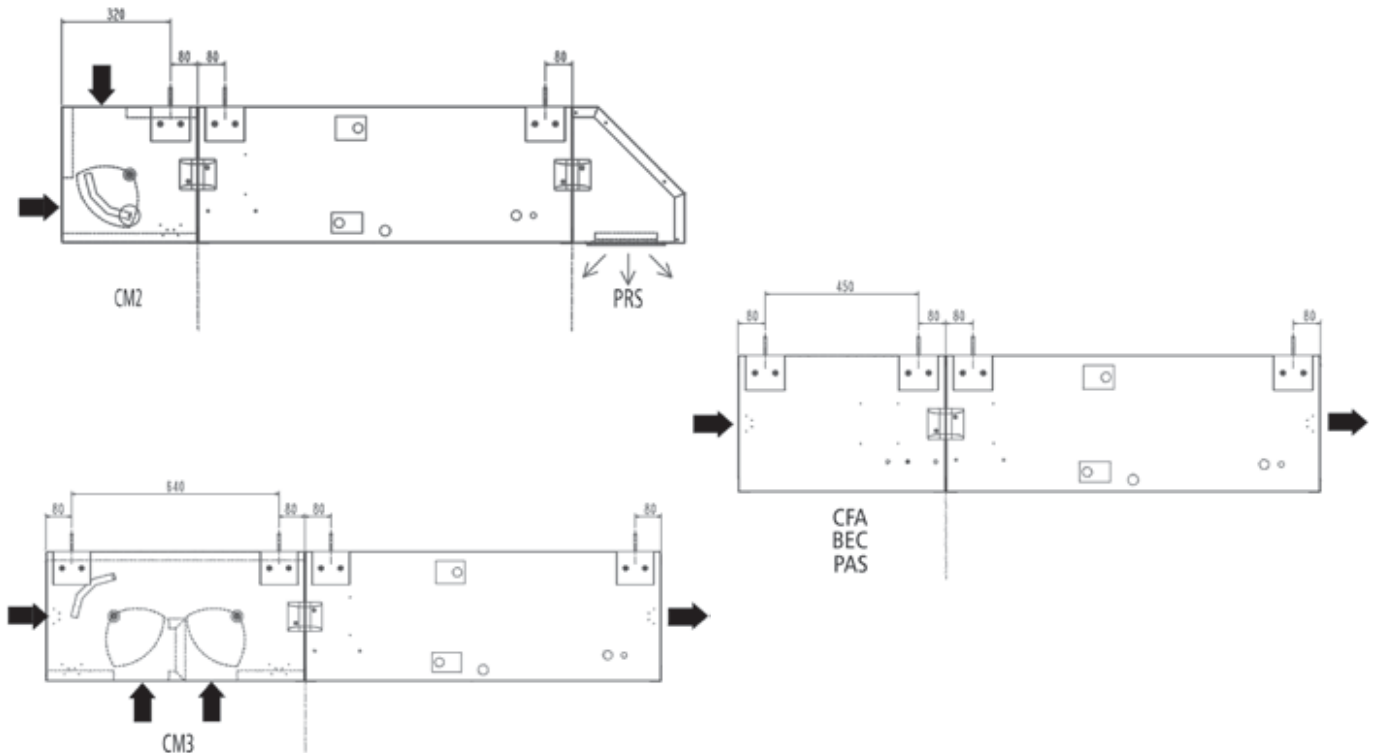
Air connection

Air connection AHU intake - AHU discharge - Mixing and plate heat exchanger



	A	B	C	D
AIR COMPACT 25	750	690	3	238
AIR COMPACT 40	1 310	1 250	6	212.3
AIR COMPACT 60	1 880	1 820	8	230.5

Examples of compositions





→ Air handling units

CLIMACIAT AIR COMPACT

This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

Head office

Avenue Jean Falconnier - B.P. 14
01350 - Culoz - France
Tel.: +33 (0)4 79 42 42 42
Fax: +33 (0)4 79 42 42 10
info@ciat.fr - www.ciat.com



CIAT Service

Tel. : 08 11 65 98 98 (0,15 € / mn)
Fax : 08 26 10 13 63 (0,15 € / mn)



Compagnie Industrielle d'Applications Thermiques - S.A. with a registered capital of 26 728 480 € - R.C.S. Bourg-en-Bresse B 545 620 114