

COMPACT AIR HANDLING UNIT



The modular Ultra-Slim
AHU is the guaranteed
perfect solution

Ideal for a compact
installation

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

39CQ

Air flow 1000-6000 m³/h

The 39CQ 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 39CQ AHU is used for fresh air change, air recirculation, air extraction and air handling using its filtration, heating, cooling, recovery and ventilation functions...

USE

There are three different installations in the range, so it can be adapted 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, able to handle air flows from 1000 to 6000 m³/h.

At 400 mm thick, it is ultra compact and can be fitted into the tightest of spaces.

This range is particularly well-suited to tertiary buildings:

- administration, offices,
- education facilities, libraries, community centers,
- cafés, hotels, restaurants,
- shopping centers, nursing homes, healthcare facilities,
- collective housing

All installations requiring ventilation.

RANGE

The 39CQ range comprises 3 sizes from 1000 to 6000 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, 1100 and 1400 mm modules.

39CQ	025	040	060	
Assembly	Ceiling-mounted (C), Floor-mounted (F), Vertical (V)			
Width/Height	750*400	1310*400	1880*400	
Nominal air flow (m³/h) (Speed: 3.1 m/s across finned layer)	2000	4000	6000	
Plug fan, AC motor	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
Plug fan, AC motor	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 sheet steel, galvanised on both sides, thickness 8/10 mm
- RAL 7035 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 wall-mounted model: access doors on the front of the unit

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, ...

DESCRIPTION

Heat exchange coil

- Hydraulic coil
 - Copper tubes, aluminium fins
 - Choice of 3 coil sizes for each AHU size
 - Optional frost protection thermostat with automatic reset
 - Condensate drain pan in stainless steel
- Evaporator coil
 - Copper tubes, aluminium fins
 - Choice of 3 coil sizes for each AHU size
 - Stainless condensate drain pan

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

Output power supplied by the electric heaters

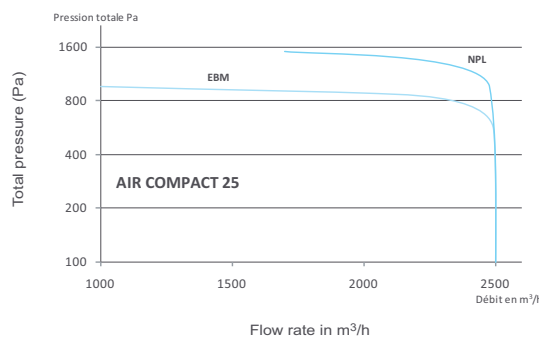
AHU size	Main casing	Additional box	
	2 stages	2 stages	4 stages
025	2 * 7.5 = 15 kW	2 * 7.5 = 15 kW	4 * 7.5 = 30 kW
040	2 * 12 = 24 kW	2 * 12 = 24 kW	4 * 12 = 48 kW
060	2 * 16.5 = 33 kW	2 * 16.5 = 33 kW	4 * 16.5 = 66 kW

Ventilation

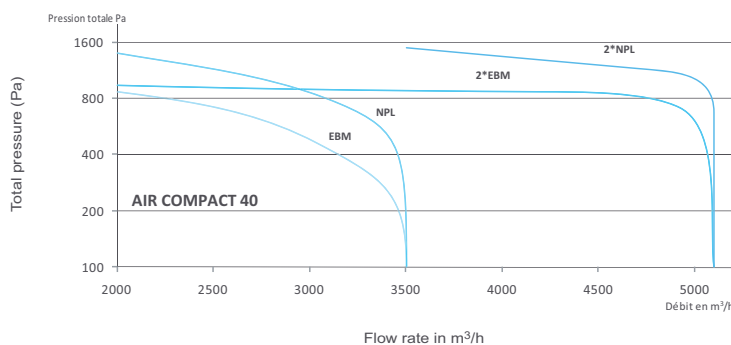
- "Plug Fan" type direct drive FMA.
- 1 or 2 FMA for each air flow rate, depending on the size and conditions.
- Plug fan combined with a motor at the end of the shaft.
- AC motor with optional frequency inverter.
- EC motor (electronically commutated motor with built-in variable speed control).

39CQ	025	040	060	
Assembly	Ceiling-/floor-mounted/vertical			
Nominal air flow (m³/h) (Speed: 3.1 m/s across finned layer)	2000	4000	6000	
Plug fan, AC motor	Plug fan	1	2	2
	Electric motor	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
Plug fan, EC motor	Plug fan	1	2	2
	EC motor	1	2	2
	Available power	1 kW		

39CQ 025

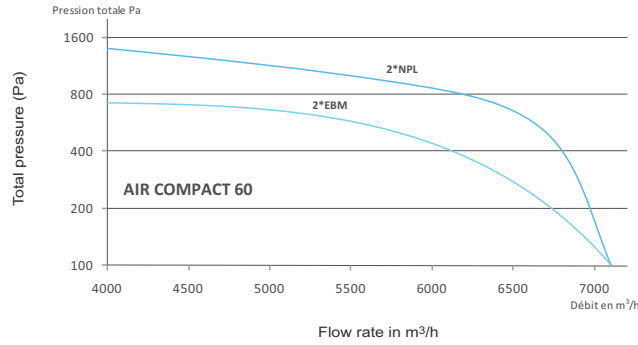


39CQ 040



DESCRIPTION

39CQ 060



Accessories and options

- 2-channel mixing box: 3 air flow positions available
- 3-way mixing box
- Angled or straight plenum
- Sound attenuator
- Adjacent plate heat exchanger (sizes 025 and 040 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

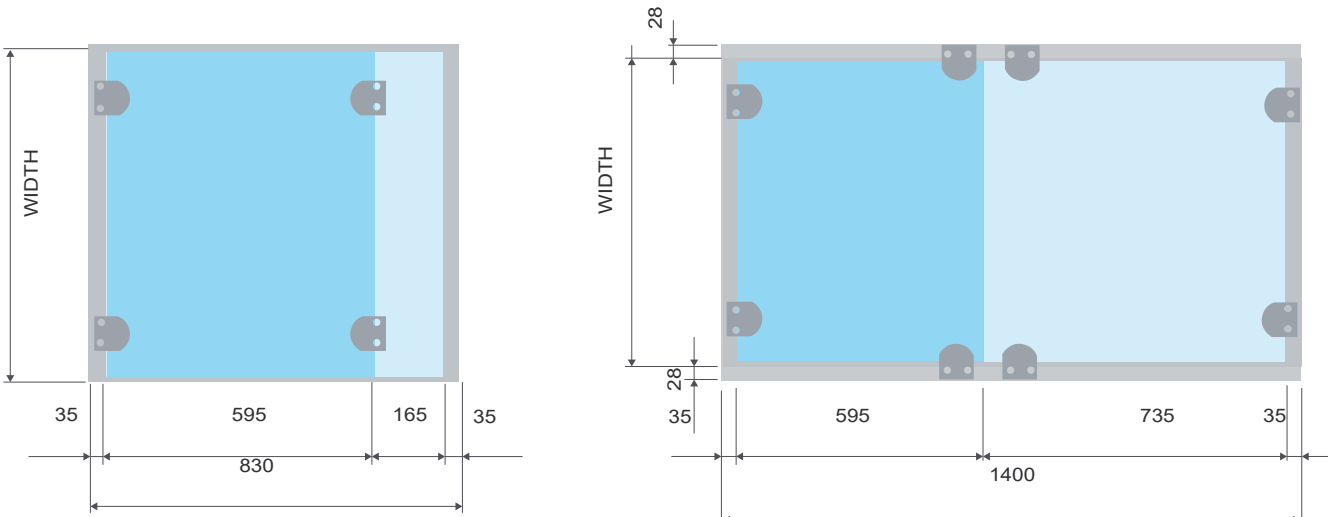
Control

- Electrics box for power, control and internal regulation of the unit, comprising as standard:
 - Three-phase 400 V power supply + Earth
 - main disconnect switch
 - protected transformer
 - protection and control of all electrical components by a circuit-breaker and switch

SPACE REQUIREMENTS AND DIMENSIONS:

DIMENSIONAL SPECIFICATIONS			
AHU size	025	040	060
External dimensions (in mm)	750 * 400	1310 * 400	1880 * 400
Casing length (in mm)	610 - 830 - 1100 - 1400: Four standardised lengths of casing, automatically adapted to the components and options selected		

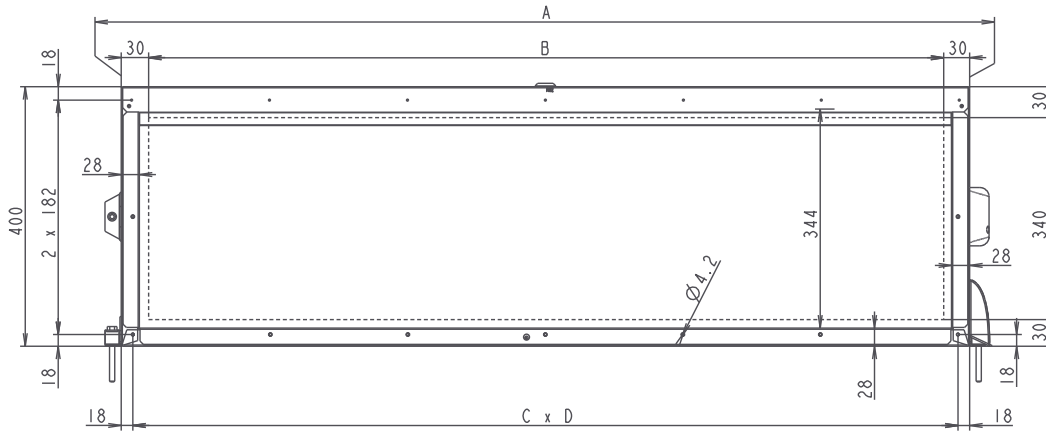
- 610 mm module ▶ 1 x 540 mm door
- 830 mm module ▶ 1 x 595 mm door
- 1100 mm module ▶ 1 x 595 mm door + 1 x 435 mm door
- 1400 mm module ▶ 1 x 595 mm door + 1 x 735 mm door



AIR CONNECTION

Air connection

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



	A	B	C	D
39CQ 025	750	690	3	238
39CQ 040	1310	1250	6	212,3
39CQ 060	1880	1820	8	230,5

Examples of compositions

