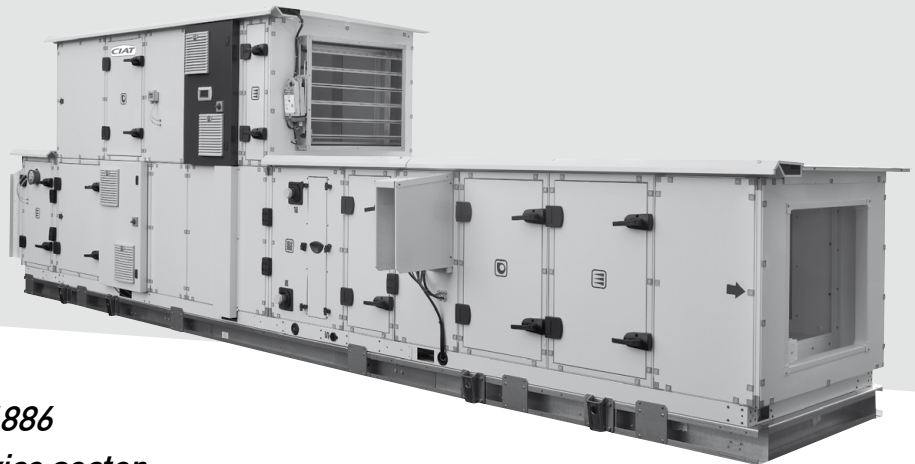




CLIMACIAT®

Air handling unit



AHU for every applications
Designed to conform to
standards EN 13053 and EN 1886
The effective solution for service sector,
industry and healthcare applications
VDI 6022 hygienic version option in all ranges
CLIMACIAT® AIRCLEAN *hygienic*
AIRCLEAN *DIN 1946-4 certified as option*



Specifications	Class	
	CLIMACIAT® Air Access	CLIMACIAT® Air Tech / Air Clean
Mechanical strength	D2	D1
Airtightness	L1	L1
Thermal transmission	T3/T2(option)	T2
Thermal bridge	TB3/TB2(option)	TB1

AIR HANDLING UNIT: CLIMACIAT®

CLIMACIAT® represents the modern air handling units that CIAT has been offering for more than 40 years. The first air handling units were produced more than 80 years ago.

The CLIMACIAT® Airaccess/Airtech/Airclean is the latest generation of AHU to be developed, and is the fruit of this experience, integrating the EN 1886 and EN13053 standards, the ERP ECODESIGN 1253-2014 regulations and current innovations (filters, heat recovery units, fans, electric motors).

CIAT is ISO 9001, ISO14001 and ISO18001 certified. This means product development meets rigorous standards and stringent environmental requirements.

Ecodesign is a very important component of the studies for the CLIMACIAT® Airaccess/Airtech/Airclean range. The resulting product has a low environmental impact, in terms of its constituent materials and their recyclability and provenance, and in terms of consumption during the equipment's life cycle.

All the relevant elements are listed on an environmental sheet which provides an overview of materials and consumption, and an impact study.

This latest generation has been designed according to its criteria and adapted based on the applications.

The renowned European Air Side research and test centre validated the choices using its extensive digital resources, confirmed by tests in climatic test and acoustic chambers.

It also has a huge amount of test equipment at its disposal, meaning it can perform the tests requested as part of some orders.

The entire process is automated from reception of the order to manufacture, it is unique and specifically dedicated to production of this range.

New, comprehensive industrial resources are dedicated to this production, including paint processing, machining of panelling, frame, application of gaskets, welding, tests.

CIAT also manufactures air-to-water or refrigerant fluid heat exchangers using our own calculating and sizing tools, and our own fully-integrated production lines.

This gives us complete control of our performance levels and procurement cycles.

All of the above aspects combine to allow us to create a high quality product which gives you complete satisfaction in a diverse range of applications from office and service sector administration to industrial processes and controlled environments in industry and also the healthcare sector.

USE

The CLIMACIAT® range is designed for the service sector, industry and healthcare to meet different requirements in terms of air mixing, filtration, heating, refrigeration, dehumidification, humidification, ventilation, recovery and sound attenuation. It is available as a horizontally-mounted version for installation indoors or outdoors with a roof and accessories to protect it from the weather. The range is available in a single or dual-flow version.

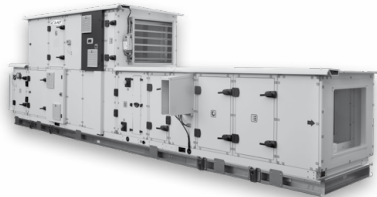
Thanks to the broad spectrum of solutions on offer, and the product's excellent modularity, the specifications for this product will always comply with the EN 13053 and EN 1886 standards, whatever its configuration.

CLIMACIAT® Airaccess



CONCENTRATED EXPERTISE TO OBTAIN THE ESSENCE

CLIMACIAT® Airtech



COMBINING EFFICIENCY AND MODULARITY TO MEET TECHNICAL REQUIREMENTS

CLIMACIAT® Airclean



DESIGNED FOR THE SPECIFIC CHARACTERISTICS OF CONTROLLED ENVIRONMENTS

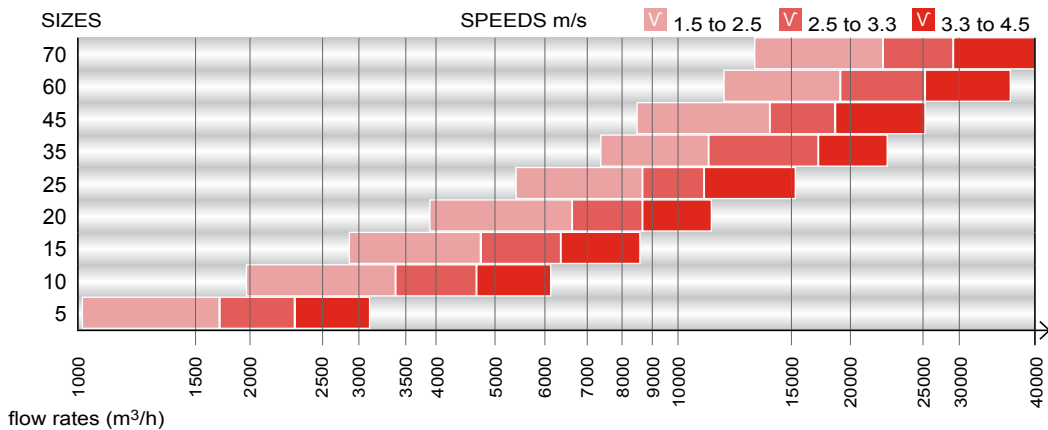
RANGE

The CLIMACIAT® segment 1 range includes 9 different sizes to handle air flows from 1000 to 30,000 m³/h.

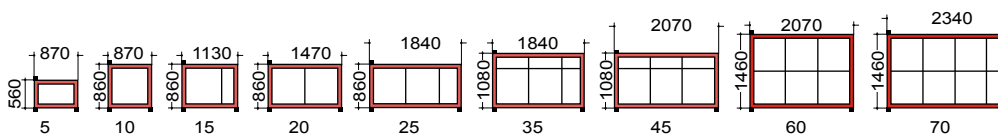
The diagram below is used to pre-select the required size according to:

- The through speed in the front active section of the heat exchange coils
- The air flow rate to be handled

Selection table

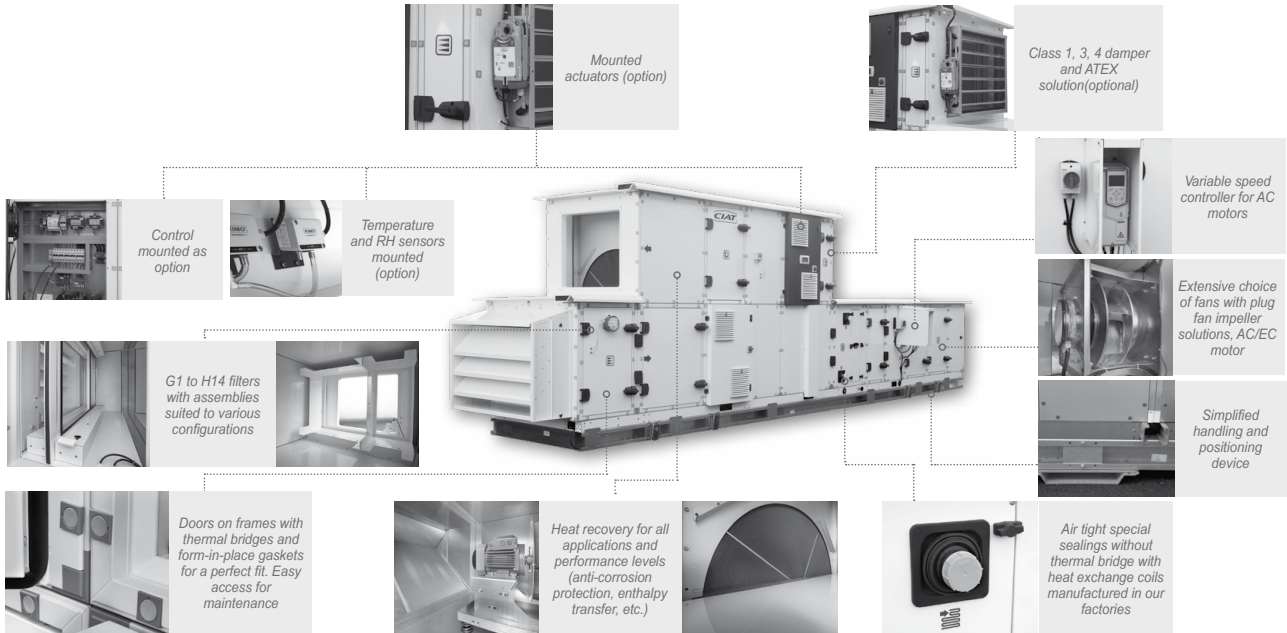


AHU sections (mm)

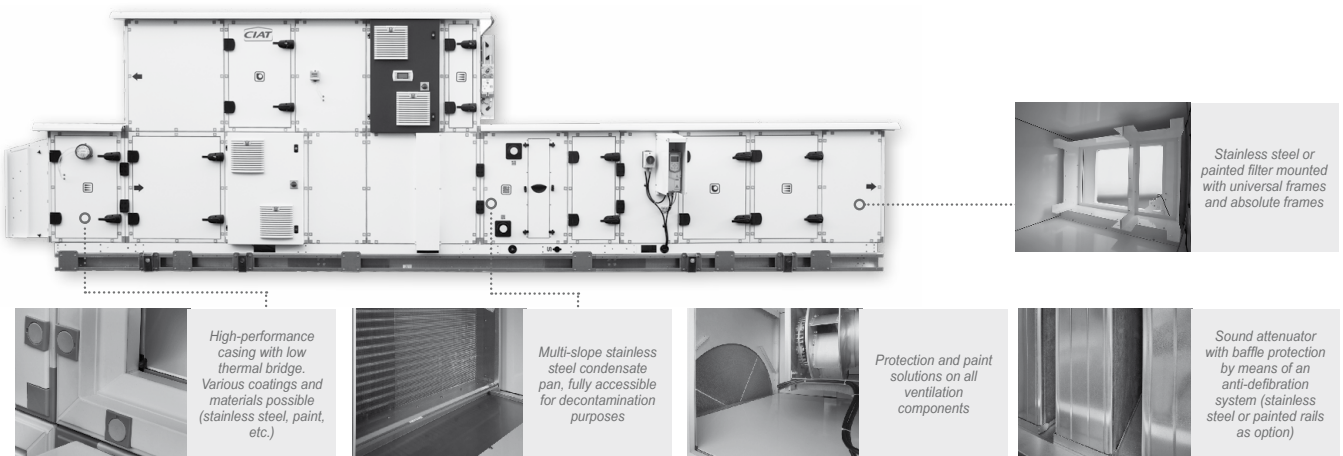


COMPONENTS DESCRIPTION

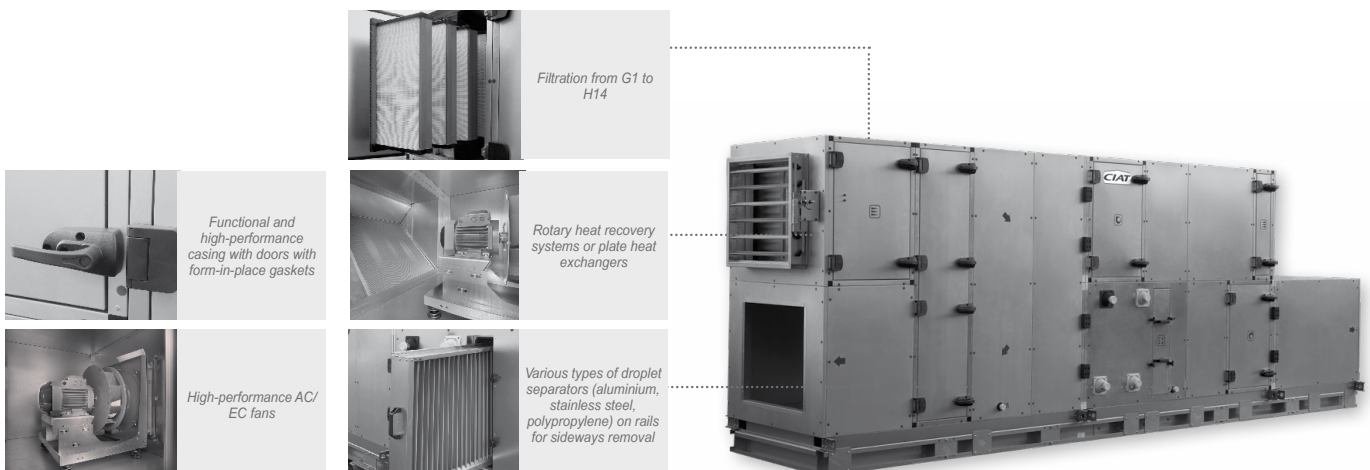
CLIMACIAT® Airtech



CLIMACIAT® Airclean



CLIMACIAT® Airaccess



GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Casing

- Self-supporting panel construction up to size 70
- Double-skin panels, with 50 mm thick, long-fibre mineral wool insulation, reinforced with a non-woven fibreglass fabric, welded on for greater vertical strength.
- Moulded high strength bi-component polyurethane gaskets for the casing and door, guaranteeing a perfect seal.
- Inside of the AHU is perfectly smooth and even, with no protruding screws, as per the specifications in European standard EN 13053 (no internal handles).
- Doors hung on high quality frames, guaranteeing durability, performance and easy access for maintenance with adjustable hinges, external twist-lock handles and decompression system.
- AHUs delivered in several units are equipped with specific factory-fitted connective pieces, which ensure perfect alignment to simplify assembly.
- Each component unit of the AHU is equipped with an 80 mm ground insulation frame and multifunction ergonomic supports (handling, assembly).
- Each component is fitted with its own service panels. This allows independent removal for each function.

The standard EN-1886, define the main construction features for Air Handling units.

Among most important features we have :

Thermal transmittance [W.m-2.K-1]: The heat flow per area and temperature difference through the casing of the air handling unit.

CLIMACIAT® Airtech

- Highly-insulated panels, with thermal bridge break profiles
- External walls made from sheet metal with RAL 9010 lacquer coating
- Internal wall in Z275 galvanised steel

CLIMACIAT® Airclean

- Highly-insulated panels, with thermal bridge break profiles
- External wall made from galvanised steel with RAL 9010 lacquer coating
- Internal wall made from galvanised steel with RAL 9010 lacquer coating

CLIMACIAT® Airaccess

- Conventional double-wall panels
- External wall in Z275 galvanised sheet steel
- Internal wall in Z275 galvanised steel

Thermal bridging factor [-]: The ratio between the lowest temperature difference between any point on the external surface and the mean internal air temperature and the mean air-to-air temperature difference

CLIMACIAT® range can be upgraded from T3/TB3 to T2/TB2 or T2/TB1 offering improved technical features and significant energy savings.

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Smooth RAL 9010 paintwork on external panels	NA	Standard	Standard
Smooth RAL 9010 paintwork on internal panels	NA	X	Standard
Internal and/or external panels in 304 L or Z3CN 18.10 stainless steel	NA	X	X
Internal and/or external panels in 316 L or Z3CND 17.11.02 stainless steel	NA	X	X
Stainless steel indoor baseframe	X	X	X
Sloped stainless steel indoor baseframe with drainage	X	X	X
Galvanised ground insulation frame (h = 80mm)	Standard	Standard	Standard
Painted frame	NA	X	X
Stainless steel frame	NA	X	X
Factory-assembled AHU on common rack : max size 45 or maximum length 6 m	X	X	X
Container kit	X	X	X
Adjustable support feet with 60 mm extension	X	X	X
Fixed extension feet from 200 to 400 mm	X	X	X
Sloped roof for outdoor mounting	X	X	X
Special louvers to match external casing finish	X	X	X
Protective cover for external components to match external casing finish	X	X	X
Factory-fitted cable raceway	X	X	X
Lateral technical unit	X	X	X

X: Option
NA: Not applicable

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Mixing and air intakes

The air intakes and mixing section may be installed at the intake, inserted between the functions or installed at the device outlet.

These functions are equipped with dampers formed of counter-rotating profiled blades, with lateral gaskets, and driven by conrods.

These dampers are installed outside of or inside the casing, depending on the solution chosen.

Independent control of the louvres: manual, motorised or ready to be motorised

The functions provided depend on the selection:

- Isolation damper
- Frost protection damper
- Safety damper (compliant with French fire security normative, article CH 38)
- 2-way mixing with air intake
- 2-way flow distributions: top, front or lateral
- 3-way mixing: aligned, stacked or juxtaposed

Depending on the finishes:

- CLIMACIAT® Airaccess
 - Class 1 galvanised steel blades and frame compliant with EN1751
- CLIMACIAT® Airtech / Airclean
 - Class 3 galvanised steel blades and frame compliant with EN1751

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Servomotor operated damper	X	X	X
Manual operated damper	X	X	X
Class 3 damper with defrosting system	X	X	X
Class 4 airtightness damper compliant with EN 1751	NA	X	X
Polyester coated face and bypass dampers (frame and blades)	X	X	X
Stainless steel 304L damper	NA	X	X
Stainless steel drain pan	X	X	X
Hinged access door	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾
Lift-off door	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾
Porthole on door	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾
230V bulkhead light	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾
Door contact switch	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾

(1) Availability depends on the configuration

X: Option

NA: Not applicable

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Filters

To meet the requirements of all the applications, a very wide range of filter efficiencies, technologies and dimensions is available.

Across the entire range, and for each type of filter, cells with international dimensions of 24" x 24" and 12" x 24" are available.

On sizes 05 to 45, compact filters which are 50mm thick are available in full section (FS) to optimise energy consumption.

Different types of filter assembly are available, depending on the efficiency level, technology and location within the AHU.

There are 6 specific assembly systems:

Assembly A available for filters with international dimensions and **Assembly A FS** for filters with a full section

- Traditional tracks designed for efficiency levels Coarse to 50% ePM10 or G1 to M6: For Compact cells, 50 mm thick, side door

Assembly B available for filters with international dimensions and **Assembly B FS** for filters with a full section

- Compressible tracks designed for efficiency levels G4 to F9 or Activated Carbon (urban pollution) for Compact cells and flexible or rigid bag with side door.

Assembly C for filters with international dimensions:

- Universal frames designed for efficiency levels Coarse up to 80% ePM10 or G4 to F9, E10 or Activated Carbon (urban pollution) for Compact cells and flexible or rigid bag with access section and side door

Assembly D for Absolute filters with international dimensions

- Absolute large-media frames for EPA and HEPA Absolute cubic cells

Assembly F for Cubic carbon filters with international dimensions

- Large-media frames for Activated Carbon cubic cells.

Description	Construction Code	Assembly	Efficiency levels ISO16890; EN779-2012; EN1822	Cell descriptive code
50 mm flat metal filter	C	A or C	Coarse 30% - G1	Galvanised steel metal medium and frame
50 mm flat filter	C	A, B or C	Coarse 60% - G4	Galvanised steel metal frame and synthetic medium
			ePM10 50% - M5	
			M6	
50 mm flat filter (full section) up to size 45	C FS	A FS or B FS	Coarse 60% - G4	Galvanised steel metal frame and synthetic medium
			ePM10 50% - M5	
			M6	
292 mm rigid bag filter	RB	B or C	ePM1 60% - F7	Polypropylene frame and fibreglass medium
			ePM10 70% - M6	
			ePM1 60% - F7	
			ePM1 70% - F8	
			ePM1 85% - F9	
380 mm short flexible bag filter	SB	B or C	E10	Galvanised steel metal frame and synthetic medium
			Coarse 60% - G4	
			ePM10 60% - M5	
			ePM10 65% - M6	
600 mm long flexible bag filter	LB	B or C	ePM1 60% - F7	Galvanised steel metal frame and synthetic medium
			ePM10 65% - M6	
			ePM1 85% - F9	
292 mm Absolute filter	CUBIC 610x610	D	E10	Polypropylene frame and fibreglass medium
			H13	
			H14	
292 mm rigid bag carbon filter + fine filter, std universal frame	RB	B or C	Carbon +ePM1 60% - F7	Polypropylene frame, synthetic + carbon medium
Flexible carbon bag filter + 600 mm long bag fine filter	LB	B or C	Carbon +ePM1 70% - F7	ABS frame, synthetic + carbon medium
292 mm rigid bag carbon filter	RB	B or C	Carbon	Carbon polypropylene frame
Cubic carbon filter	CUBIC 595x595	F	Carbon	Metal frame + carbon panel

C: 50 mm compact filter
 C FS: 50 mm compact filter, full section
 RB: 290 mm rigid bag filter

SB: 380 mm short flexible bag filter
 LB: 600 mm long flexible bag filter
 CUBIC: 292 mm cubic

* CLIMACIAT® software offers the equivalent classification of the filters according to the ISO 16890

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Lift-off door	X	X	X
Filter pressure tapping	Standard	Standard	Standard
Additional filter set	X	X	X
Galvanized steel driptray	X	X	X
Stainless steel drip tray	X	X	X
Liquid manometer (supplied loosely in a kit)	X	X	X
Differential pressure switch	X	X	X
Magnehelic pressure gauge (supplied loosely in a kit)	X	X	X
Magnehelic pressure gauge factory fitted	X	X	X
Double glass porthole	X	X	X
230V bulkhead light (supplied loosely)	X	X	X
230V bulkhead light and wired to external switch	X	X	X
Door contact switch	X	X	X
Filter slide rails painted	X	X	Standard
Filter frame painted	X	X	Standard
304 L or 316 L stainless steel slide rails	X	X	X
Stainless steel frontal access filter frame (fine filters •F")	NA	X	X
Painted filter frame (EPA/HEPA filters)	X	X	Standard
Stainless steel filter frame (HEPA filters •H")	NA	X	X

X: Option

NA: Not applicable

■ Plate heat exchanger

- 3 efficiency levels available: from 60% to 85%
- The plate heat exchangers are always equipped with a total bypass on fresh air and access hatch to the servomotor
- Condensate drain pan on exhaust air side, made from galvanised steel with condensate drain piping as standard
- Available in a stacked configuration for all sizes
- Available in a juxtaposed configuration for size 60 and 70
- Access door to the condensate drain pan(s)

In the standard construction, the heat exchanger has aluminium plates, and can be used routinely up to an air temperature of 90°C (if the plate heat exchanger is a component of an AHU, the standard limit temperature is 80°C). The leakage flow rate is 0.1%, the nominal flow rate for a pressure difference of 400 Pa between the 2 air streams.

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Pre-painted aluminium plates	X	X	X
Condensate drain pan (exhaust air side) stainless steel	X	X	X
Condensate drain pan (fresh air side) stainless steel	X	X	X
Paint on baffle, partition and support	X	X	X
Plate exchangers components made of 304 L or 316 L stainless steel	NA	X	X
Painted bypass damper	X	X	X
Stainless steel bypass damper	NA	X	X
Servomotor or manual damper operation	X	X	X
Pressure tappings in intake and exhaust	Standard	Standard	Standard
Additional access door	X	X	X
Door porthole	X	X	X

X: Option

NA: Not applicable

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Rotary heat exchanger

- Several efficiency levels available: from 75% to 85%
- Corrugated aluminium fins
- Adjustable peripheral gasket to guarantee a minimum leak flow rate
- Lateral inspection panel
- Constant speed gear motor (230 / 400 V three-phase power supply)
- Maintenance-free ball bearing

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Gear motor and variable frequency drive for variable speeds from 0 to 10 rpm – 230 V single-phase	X	X	X
Coated aluminium heat recovery wheel	X	X	X
Hygroscopic heat recovery wheel (for humidity exchange)	X	X	X
Enthalpic heat recovery wheel (for total power exchange)	X	X	X
Condensates drain pan	NA	X	X
316 stainless steel drain pan	NA	X	X
Indoor panels polyester coated	X	X	X
Indoor panels in 304 L or 316 L stainless steel	NA	X	X
Pressure tapings	Standard	Standard	Standard
Purge sector	X	X	X
Door porthole	X	X	X

X: Option
 NA: Not applicable

■ Heating coil

Fluids:

- Hot water
 - Construction with copper tubes and aluminium fins.
 - Maximum primary fluid temperature = 120°C.
 - Operating pressure for water: 16 bar as standard - Higher pressures on consultation.
 - Removable sealing collars between the casing and manifolds (up to a diameter of 3" to prevent damage to the sealing system when connecting up).
- Superheated water
 - Construction with steel tubes and aluminium fins.
 - Maximum primary fluid temperature = 200°C.
 - Operating pressure for water: max 30 bars.
 - Manifolds and supply tubes are steel tubes with smooth ends.
- Condensation refrigerant
 - Construction with copper tubes and aluminium fins.
 - Supply tubes are copper tubes with smooth ends.
- Steam
 - Max pressure 2 to 8 bars - stainless steel tubes, aluminium fins.
 - Manifolds and supply tubes are stainless steel tubes with smooth ends.

Depending on the type of coil and the diameters required, the manifolds and supply tubes are:

- Copper tubes with unions up to a diam. of 2" 1/2.
- Grooved steel tubes for larger diameters.

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Superheated water coil	X	X	X
Steam coil	X	X	X
Condensation coil	X	X	X
Pressure tapping, upstream and downstream	X	X	X
Precoated fins/ max. primary fluid temperature 110°C	X	X	X
Stainless steel water coil	NA	X	X
ALTENA treatment, max. temperature 160°C	X	X	X
BLYGOLD treatment, max. temperature 90°C	X	X	X
HERESITE treatment, max. temperature 180°C	X	X	X
Copper fins	X	X	X
Paint on tracks	X	X	X
304 L or 316 L stainless steel tracks	X	X	X
304 L or 316 L stainless steel slide rails	X	X	X
Standard screw flanges	X	X	X
Stainless steel screw flanges	X	X	X
Quick connections kit (copper tubes) (victaulic type)	X	X	X
Threaded connections (steel tubes)	X	X	X
Frost protection thermostat (manual reset)	X	X	X
Frost protection thermostat with automatic reset supplied loosely	X	X	X
Frost protection thermostat with automatic reset (factory fitted)	X	X	X

X: Option
 NA: Not applicable

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Electric heater

- Shielded resistors in stainless steel scrolled finned tubes
Connection to copper jumper strips.
- Assembly with double insulation.
- The electric heater is equipped with two safety thermostats.
The first has a manual reset, the second has an automatic reset.
- To set up the coil, refer to the instructions sent with each unit.
- Take the necessary measures to prevent abnormal overheating when the fan is switched off (fan delay).

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Slide rails painted	X	X	X
304 L or 316 L stainless steel slide rails	X	X	X
304 L or 316 L stainless steel coil casing	X	X	X
Single- or three-phase connection	X	X	X

X: Option
NA: Not applicable

■ Refrigeration coil

Fluids:

- Chilled water
 - Construction with copper tubes and aluminium fins.
 - Operating pressure for water: 16 bar as standard - Higher pressures on consultation.
 - Sloped condensate drain pan with drain tubes to be connected on site to a siphon (compulsory requirement).
 - Droplet separator as standard if necessary, as an option on request.
 - Removable sealing flanges between the casing and manifolds up to 3" in diameter, preventing damage to the sealing system during connection operations.
 - Copper tubes with unions up to a diam. of 2"1/2.
 - Grooved steel tubes for larger diameters.
 - Direct expansion evaporation
 - Construction with copper tubes and aluminium fins.
 - Sloped condensate drain pan with drain tubes to be connected to a siphon on site (compulsory requirement).
 - Droplet separator as standard if necessary, as an option on request.
 - Standard smooth copper refrigerant supply tubes (supplied capped)
 - Manifold on fluid intake as standard.
- Depending on the type of coil and the diameters required, the manifolds and supply tubes are

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Chilled water coil	X	X	X
Direct expansion evaporation coil	X	X	X
Access panel on droplet separator	as standard if compulsory		
Precoated fins/ max. primary fluid temperature 110°C	X	X	X
Stainless steel tubes coil	NA	X	X
Copper fins coil	X	X	X
ALTENA treatment, max. temperature 160°C	X	X	X
BLYGOLD treatment, max. temperature 90°C	X	X	X
HERESITE treatment, max. temperature 180°C	X	X	X
Slide rails painted	X	X	X
Stainless steel slide rails	X	X	X
304 L or 316 L stainless steel coil casing	X	X	X
316 L stainless steel condensate drain pan	X	X	X
316L stainless steel hygienic drain pan	NA	X	X
Insulated drain pan (cell foam)	X	X	X
Headers/elbows insulation	X	X	X
All stainless steel droplet separator (frame and medium)	X	X	X
Polypropylene blade droplet separator, galvanised frame	X	X	X
Polypropylene blade droplet separator, stainless steel frame	X	X	X
Aluminium blade droplet separator, galvanised frame	X	X	X
Aluminium blade droplet separator, stainless steel frame	X	X	X
Pressure tapping, upstream and downstream	X	X	X
Standard screw flanges	X	X	X
Stainless steel screw flanges	X	X	X
Tubes with quick connections (copper tubes) (victaulic type)	X	X	X
Threaded connections (steel tubes)	X	X	X
Frost protection sensor support	X	X	X

X: Option
NA: Not applicable

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Fans

- Forward-curved dual-inlet fan.
- Backward-curved dual-inlet fan.
Steel scroll and impeller.
Belt and pulley transmission on the dual-inlet fans.
Assembly on anti-vibration frame with flexible internal sleeve and damper mounts.
- Metal impeller plug fan with AC motor
Assembly on anti-vibration frame with flexible internal sleeve and damper mounts.
- Standard motor: asynchronous three-phase, 230 / 400 V 50 Hz up to 3 kW - 400 V - 50 Hz from 4 kW, IP 55 protection, class F with PTC thermistors (thermal protection)
- Steel plug fan with EC motor with integrated fan
Assembly on partition.
- Inspection hatch with bolts in compliance with the "MECHANICAL SAFETY" specification in the EN 1886 standard and the machinery directive.

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Fan with forward-curved blades and transmission	X	X	X
Fan with backward-curved blades and transmission	X	X	X
Plug fan	X	X	X
EC plug fan	X	X	X
Flush mounted panel	X	X	X
Hinged door	Standard	Standard	Standard
Pressure tappings	X	X	X
Door contact switch	X	X	X
Double glass porthole	X	X	X
Smoke detector (NF S61961)	X	X	X
230V Bulkhead light (supplied loose item)	X	X	X
230V Bulkhead light fitted and wired to an external switch	X	X	X
Anticorrosion painting for wheel and motor assembly (centrifugal and AC plug fan motor)	X	X	X
Stainless steel wheel and motor assembly (centrifugal and AC motor plug fan)	NA	X	X
Anticorrosion painting for EC fan wheel	NA	X	X
Protection grill for centrifugal fan	X	X	X
Screened door protection	X	X	X
Belt housing	X	X	X
2 motors set in parallel	X	X	X
Motor support on rails	X	X	X
Variable frequency drive (supplied loose item)	X	X	X
Variable frequency drive factory fitted	X	X	X
Door switch factory fitted	X	X	X
Door switch (supplied loose item)	X	X	X
Anti recirculation damper for fan	X	X	X

X: Option
NA: Not applicable

■ Sound attenuator

- Different lengths of baffle depending on the required attenuation.
- Mineral wool of different densities, the faces are covered with an anti-erosion shield.
- Galvanised panelling.

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Baffle lengths (in mm)	600 - 900 - 1200 - 1500		
Anti schredding glass cloth	NA	X	X
Polyester coated slide rails	X	X	X
Epoxy painted sheet metal baffles	X	X	X
304 L or 316 L stainless steel rails	NA	X	X

X: Option
NA: Not applicable

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

■ Standalone production steam humidifier

With steam production (standalone with electrodes)

The supply includes:

- Aluminium steam distributor.
- Steamer with electrical cabinet and controller (IP 33).
- Proportional or On/Off control.
- Duct/cylinder connection.
- Condensate return tubes and connections.
- 230 V single-phase or 400 V three-phase supply voltage - 415 V according to capacity
- Min and max supply water conductivity limits 125 - 1250 microsiemens /cm (8000 - 800 ohm).
- Water hardness (orientative values for France 15-30 degrees) check local regulations

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Stainless steel	X	X	X
Galvanised droplet separator	X	X	X
Stainless steel droplet separator	X	X	X
Double glass porthole	X	X	X
230V Bulkhead light factory fitted and wired to an external switch	X	X	X
Flush mounted panel	X	X	X
Door contact switch	X	X	X

X: Option

NA: Not applicable

Steam humidifier with electrical heaters available on request

■ Control

The electrics box is integrated into the unit and the electrical cables are protected by an enclosed cable raceway, factory-fitted.

The unit can be supplied as a single unit, equipped with a control which is fully assembled and tested in the factory if it is formed of one block, or a multi-block assembled on the optional multi-block frame.

Plug & Play solution: the electrics box is powered by a 400 V + earth power supply

The control software for the CLIMACIAT® range enables the following:

- Temperature regulation⁽¹⁾: sensor on supply air/return air/room air
- Humidification and dehumidification regulation⁽¹⁾: sensor on return or room air
- Fan management: constant flow/constant pressure
- Filter fouling management (4-stage filtration as maximum)
- Single-zone air quality management CO₂ sensor on return air or room air
- Water coil: cooling/heating/mixed/direct expansion (3 maximum)
 - 2-way valve
 - 3-way valve
- Electric heater (4-stage heaters as maximum)
 - Proportional and On/Off control
 - 1 TRIAC type proportional stage (compulsory)
 - Independent power supply, controlled by the AHU PLC.
- Steam humidifier with electrode:
 - Independent power supply, controlled by the AHU PLC.
- Management of cooling modes: Free cooling / Night cooling
- Management of frost protection faults
- Fire protection
- Communication board available:
 - Direct expansion coil management
 - Adiabatic humidifier management
 - Modbus RTU RS485 / Modbus TCP IP / KNX / LON / BACNET IP

The functions below requires an external regulation (independent from the integrated control)

- Steam coil/Superheated water coil/Glycol/mixed water coils/
- Gas burner

(1) availability depends on options; see specific control document

GENERAL DESCRIPTION OF THE CLIMACIAT® RANGES

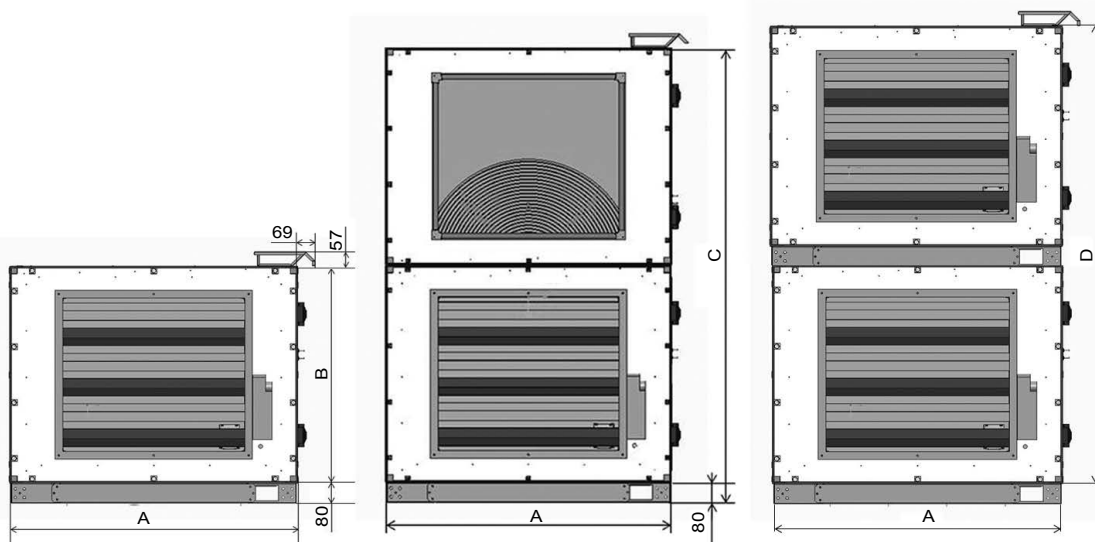
■ Extra accessories:

OPTIONS AVAILABLE PER RANGE	Airaccess	Airtech	Airclean
Flexible duct connections	X	X	X
Rain protection hood (supplied with grill)	X	X	X
Additional protection grill	X	X	X
Factory-assembled AHU on common rack: max size 45 or maximum length 6 m	X	X	X

X: Option
NA: Not applicable

DIMENSIONS

■ External dimensions and raceway details(1)



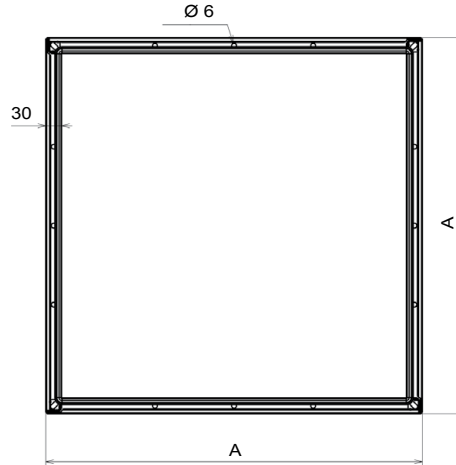
Sizes	Casing external dimension				Section length (2)
	A	B	C	D	
5	870	560	1122		250 < L < 2800
10	870	860	1722		250 < L < 2800
15	1130	860	1722		250 < L < 2800
20	1470	860	1722		250 < L < 2800
25	1840	860	1722		250 < L < 2800
35	1840	1080	2162		250 < L < 2800
45	2070	1080	2162		250 < L < 2800
60	2070	1460		3000	250 < L < 2800
70	2340	1460		3000	250 < L < 2300

(1) Optional raceway with height of 70 mm and width of 57 mm

(2) Length excluding the 23 mm unit end panel at each end

DIMENSIONS

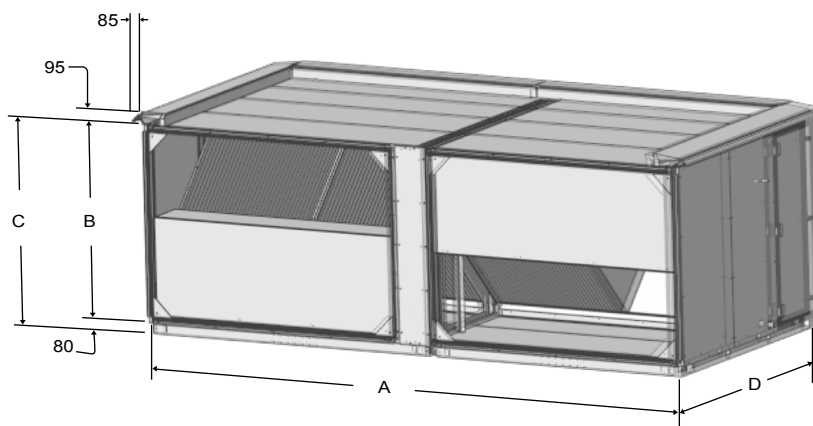
■ Connection flanges



Reference 00: Lateral air intake
Reference 1: Air intake, small section
Reference 2: Air intake, large section
Reference 3: Scroll fan discharge air intake

CLIMACIAT® UNIT	Airaccess									
	Airtech	5	10	15	20	25	35	45	60	70
	Airclean									
Reference 00 - LATERAL	A	320	320	470	620	720	770	970	870	970
	B	370	670	670	670	670	870	870	1270	1270
Reference 1 - SMALL SECTION	A	515	515	775	1115	1485	1485	1715	1715	1985
	B	220	370	370	370	370	470	470	670	670
Reference 2 - LARGE SECTION	A	515	515	775	1115	1485	1485	1715	1715	1985
	B	370	670	670	670	670	870	870	1270	1270
Reference 3: FAN DISCHARGE	A		520	520	520	520	620	620	920	920
	B		520	520	520	520	620	620	920	920

SIDE-BY-SIDE CONFIGURATION is available for CLIMACIAT® Airaccess, Airtech, Airclean, in sizes 60 and 70. This configuration is available in **T2/TB2 CLIMACIAT®** configurations and **with PLATES HEAT EXCHANGER**.



Sizes	Casing external dimension			
	A	B	C	D**
60	4390	1460	1540	2000
70	4930	1460	1540	2000

** Length excluding the 23 mm unit end panel at each end

This configuration is useful for indoor and outdoor installations, as it has reduced dimensions, that makes it ideal for refurbishment jobs and also for outdoor installation as it can be easily hidden by an aesthetical structure. Component's accessibility is improved, and weight / load distribution is more equilibrated, which makes easier transport and maintenance operations.