



# Unbeatable efficiency



Close air conditioning means not only compliance with the severest environmental parameters but also with the specific requirements of the site, such as EFFICIENCY, FLEXIBILITY, OPERATING RELIABILITY AND RESPECT FOR THE ENVIRONMENT, all of which must be satisfied for the products of today.

ACCURATE has been designed to meet all these requirements, exploiting the renowned capacity to supply high quality air conditioning systems.

# ACCURATE: THE PERFECT MATCH BETWEEN EFFICIENCY AND RELIABILITY

Nowadays efficiency is no longer considered to be just saving energy in the single unit, but takes into account the system's PERFORMANCE, COMPLETE RELIABILITY and MODULARITY over the years.

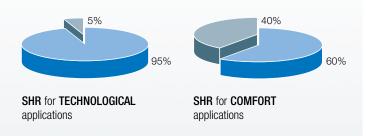
By offering ACCURATE as a solution to technological cooling problems, Climaveneta puts great effort into the use of well-known high quality components such as the EC PUL fans installed as standard in all units, together with perfect integration of the machines with the BMS (Building Management System).

### COOLING? ONLY SENSIBLE

As we known, electronic equipment develops solely SENSIBLE heat loads and therefore needs personalized air conditioning.

Brilliantly engineered in all its parts, ACCURATE ensures maximum SENSIBLE cooling capacity to the detriment of the LATENT capacity, which would be a sheer waste of energy in these applications.

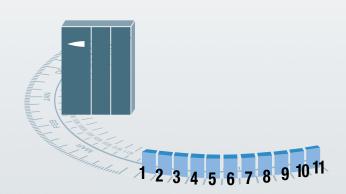
This is of fundamental importance for transforming all the supplied energy into a real control of room temperature. The result is a high SHR, minimum of 0.9 and a maximum of 1, in order to have the utmost SENSIBLE, and not latent type of cooling.

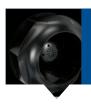


### CUSTOMER-ORIENTED APPROACH

In Climaveneta's mind, the greatest efficiency also means providing customers with the perfect solution for their projects.

The company delivers a complete range of products and solutions for high precision air conditioning. 360° versatility, both in terms of capacity (ranging from 5 to 115 kW), as well as plant types thanks to 2 different cooling versions (BASIC and SMART) dedicated to IT environments with different indoor temperatures. When even this is not enough, Climaveneta's 45-years of experience in air conditioning is the key element to ensuring tailor-made solutions dedicated to specific application requirements.





# Outstanding performance





# EC PUL INVERTER FANS

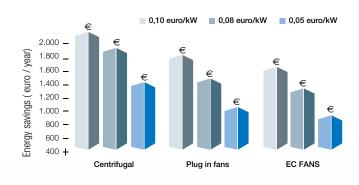
Aimed at optimizing energy costs, this modern technology with an electronically commutated EC motor increases the overall energy efficiency of the unit through a precise management of all parameters such as flow rate, power and pressure in order to ensure the best system operation in any working conditions.

### Main features:

- Noise level reduction by 4-5 dB(A) compared to traditional fans
- Power absorption reduction by 25% compared to traditional fans
- 2 versions available, BASIC and high pressure HP (optional)

# EC FANS WITH ELECTRONICALLY COMMUTATED MOTOR

The most advanced solution for energy savings



Energy savings of EC fans compared to traditional fans

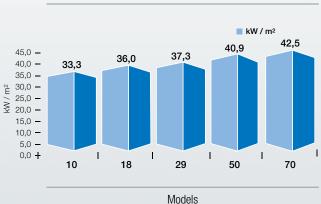
### PERFECT ENERGY MANAGEMENT

It is well known that loads (W/m²) set in technological applications are continuously increasing. The growth in data exchange is in fact generating greater heat loads that are usually localized in 'hot spots'.

This requires better performance from the air conditioning system that should, however, take up as little space as possible. In this context, ACCURATE presents itself as the air conditioner with the best supplied power/footprint ratio on the market. Because even space is value.

### **DIRECT EXPANSION RANGE**

Cooling Capacity (kW)





# Intelligent control

### Intelligent heart and soul

An intelligent electronic heart that allows the unit to maintain constant control over all the operating and environmental parameters of the site.

ACCURATE's electronics is open and configurable to specific user requirements both in site and particularly in the factory with dedicated customization.



### **ELECTRONICS**

### STANDARD FUNCTIONS

- Semi-graphic display 132 x 64 pixel
- Programmable software
- Icon graphic display
- Record storage of 200 alarms
- General alarm
- BLACK BOX for prevention analysis
- Automatic restart after blackout
- FIFO management of the compressors
- Integrated LAN system
- Stand-by management of the units
- Automatic time rotation
- Serious alarm management
- Clock card

### **ACCESSORIES**

- Serial cards for BMS interconnection
- Fire-smoke alarms
- Flooding alarm
- Electronic thermostat control
- Flow rate modulation
- Emergency function
- Free Cooling and Dual Fluid management

# ACCURATE for high temperature environments

### **ACCURATE SMART: beyond traditional operating limits**

The need to achieve increasingly greater efficiency and lower TCO values, has led to an increase in the inlet air temperature of up to 27°C (ASHRAE, 'Thermal Guidelines for Data Processing Environments') and a consequent increase of the respective discharge temperatures.

Specially developed to handle inlet temperatures of up to 40°C, ACCURATE SMART is the winning answer proposed by Climaveneta for environments with hot and cold aisles.



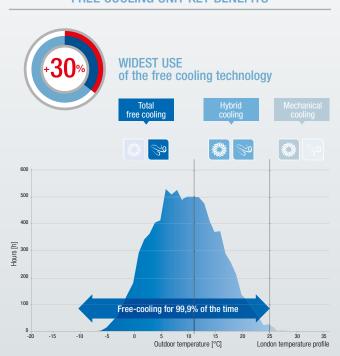
Available as DUAL FLUID (AD / AT) and FREE COOLING (AF) versions, the SMART configuration optimizes the performance of the primary water circuit even with high liquid temperatures, thus increasing the chillers' efficiency and maximizing the performance of free cooling even with high outdoor temperatures.

### **DUAL FLUID UNIT KEY BENEFITS**

# INCREASED chiller cooling capacity BETTER chiller efficiency WIDEST USE of the chiller free cooling technology

Data refers to a 6°C increase in the chiller water temperature

### FREE COOLING UNIT KEY BENEFITS



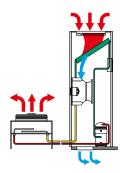


# Total versatility

All-round flexibility as a service offered for any type of system.

The direct expansion ACCURATE units are available with capacities ranging from 5 to 100 kW in the air

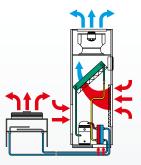
### **TYPES OF COOLING**



### AXO/AXU

### DIRECT EXPANSION AIR COOLED UNIT

The air in the room is treated in the evaporating coil containing the refrigerant. The condensation heat is dispersed to a fresh air condenser which is provided with speed control to optimize the condensation pressure even with low temperatures.



### AWO/AWU

### DIRECT EXPANSION WATER COOLED UNIT

The air in the room is treated in the evaporating coil containing the refrigerant. The condensation heat is dispersed in an internal plate-type exchanger connected to a water circuit. The condensation water may come from a well, local water systems or closed circuits such as cooling towers or dry coolers.

### **AIRFLOW CONFIGURATION**

### OVER

The versions called OVER with air outflow from the top generally have the air intake at the front, rear or bottom of the unit, according to the customers' choice, and the outflow from the top is along ducts behind suspended ceilings or front delivery plenums.

0.1



Airflow: OVER, air discharged from the top, frontal air intake

 $\label{eq:Raised floor: absent} \mbox{Room Height} < 3 \mbox{m}$ 

0.2



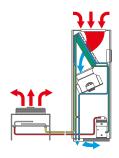
Airflow: OVER, air discharged from the top, air intake under the floor

Raised floor > 400 mm Room Height < 3m 0.3



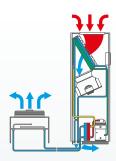
Airflow: OVER, air discharged from the top, air intake from the rear/bottom of the unit

Raised floor: absent Room Height < 3m cooled version (AXO-AXU) and the water cooled version (AWO-AWU), with capacities ranging from 24 to 116 kW in the dual fluid versions (ADO-ADU / ATO-ATU) and the free cooling units (AFO-AFU).



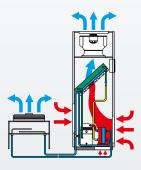
### ADO/ADU - ADO/ADU SMART DUAL FLUID UNIT

In these units two cooling systems that never work simultaneously are available. A PRIMARY chilled water circuit (CW), generally connected to an outdoor chiller, is combined with a SECONDARY direct expansion (DX) air cooled circuit, which is back-up. Such units are particulary suggested anywhere RELIABILITY, SAFETY and REDUNDANCY are required.



### ATO/ATU - ATO SMART/ATU SMART DUAL FLUID INVERTER UNIT

In these units two cooling systems that never work simultaneously are available. A PRIMARY chilled water circuit (CW), generally connected to an outdoor chiller, is combined with a SECONDARY direct expansion (DX) water cooled circuit, which is considered back-up. Such units are particularly suggested in applications where RELIABILITY, SAFETY and REDUNDANCY are the key drivers.



### AFO/AFU - AFO/AFU SMART

FREE COOLING UNIT

In these units two cooling systems are available, which are often working simultaneously all year round. A PRIMARY direct expansion circuit (DX) is combined with a SECONDARY chilled water circuit (CW). Highly suggested in applications where attention to EFFICIENCY & ENERGY SAVINGS of the entire conditioning system are key.

### UNDER

The versions called UNDER with air outflow under the floor have the air intake on the top of the unit taking air directly from the environment or through intake ducts or plenums.





Airflow: UNDER, air discharged from the bottom under the floor with air intake from the top

Raised floor > 400 mm Room Height < 3m



# Total compatibility



### **ACCURATE IS TOTAL COMMUNICATION**

In a policy of 'total communication', ACCURATE offers several interconnecting solutions to the most modern BMSs.

### **GLOBAL SUPERVISION**

Firmware protocol for total management of all the air conditioning parameters, including:

- Detection and transmission of alarms from remote
- Change of data from remote
- Recording of data and alarms
- Sending of SMS via GSM modem

All these services are ensured by dedicated serial cards and supervision systems both in LOCAL and REMOTE modes.

### ADVANCED SUPERVISION

Compatibility solutions for all the most common BMSs available on the market today, such as:

- MODBUS
- METASYS
- LON
- TREND
- LONWORKS
- SNMP/TCPIP
- BACnet

An advanced supervision system to satisfy every single customer requirement and to offer the opportunity to communicate with the global network.



### RESPECT FOR THE ENVIROMENT

ACCURATE embraces the principles of environmental sustainability aimed at promoting a greener and healthier world.

Green technologies and eco-friendly refrigerants (R410A), strongly recommended by worldwide institutions, are the new key drivers of the latest ACCURATE air conditioners.

### **NOISELESS COLD**

Modern telecom applications in residential areas must satisfy increasingly strict requirements in terms of noise pollution. Thanks to a great number of specific technological solutions, ACCURATE offers the best answer to the most stringent environmental requirements.

### Key features:

- EC FANS with air flow modulation capability
- Soundproof compressors (OPT)
- Panelling clad in soundproof material (STD)

### MAINTENANCE

All ACCURATE models have been brilliantly designed to simplify maintenance activities carried out during the life cycle of the product. The refrigerant circuit area is completely separate from the fan area, thereby allowing ordinary maintenance to be carried out also with the unit in operation.

All service operations, even the most critical ones, can be accomplished

All service operations, even the most critical ones, can be accomplished by frontal access. That is why all the front panels can be opened and removed thanks to simple hinges.

# Range overview





### **RANGE OVERVIEW**

- AX0 / AXU
- AWO / AWU
- ADO / ADU
- ATO / ATU
- AFO/AFU
- BRE / BDC

# AXO / AXU 05÷90







### AXO / AXU

Close control air conditioner

Type: DIRECT EXPANSION, AIR COOLED, upflow or downflow version

Configurations	Version	S
BASIC For applications up to	BASIC	Cooling only without condensation control device
32°C air intake	MOD	Cooling only with condensation control device through external unit fans regulation
	LT	with condensation control device through external unit speed regulation.

### **UNIT DESCRIPTION**

Ductable close control air-conditioners with capacities ranging from 5 to 95 kW for vertical installation and cooling only, with optional heating by means of heating element or hot water, optional humidifier and dehumidifier for precise temperature and humidity control.

Particularly suitable for IT environments and technological applications, ACCURATE AX is available standard with 50Hz and 60Hz power supply (400V/3N/50Hz, 230V/3/60Hz, 380V/3/60Hz, 460V/3/60Hz).

### STANDARD UNIT COMPOSITION

- Unit for indoor or outdoor installation
- Maximum resistance to rust thanks to galvanized sheet metal structures and panels with powder-coated paint finish. The panels are lined with sound-insulating material.
- The reliability and functionality of the compressor and all the other components are guaranteed by partners who are world leaders in their sector.
- New EC fans with electronically commutated motors in order to increase energy savings and reduce noise emissions.
- Condensation control for minimum noise (standard).
- Standard G4 filtering section, F5-F8 optional, under CEN-EN 779 rule with 90,1% degrees of separation ASHRAE.
   The filter is the self-extinguishing type.

- The microprocessor controls the compressor activation times with FIFO logic, thereby regulating the cooling capacity; it also controls the operating alarms with the possibility of interfacing to supervisor and remote servicing systems.
- Electrical box under IEC 204-1/EN60204-1 rules.
- Refrigerant circuit consisting of the standard version of a thermostat with a valve for internal pressure relief, a solenoid valve, a high/low pressure safety pressure switch, a liquid indicator light and a dehydrating filter.

















Model			5	7	10	15	18	20	26	29	39	30	40	50	55	60	70	80	90
Frame				F1		F	2		F3			F	4			F5		F	-6
No. Circuits/ No. Compressors			1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant				R410A		R4	10A		R410A			R41	I0A			R410A		R4	10A
Nominal air flow		mc/h	1800	2500	2500	4900	4900	6500	8000	8000	13500	10500	13500	13500	19000	19000	19000	25000	25000
Power supply		V/Ph/Hz	230/1/50	400/3	3N/50	400/	3N/50		400/3N/50	)		400/3	3N/50			400/3N/50	)	400/	3N/50
PERFORMANCE																			
Total cooling capacity	(1)	kW	4,96	7,2	9,6	16,3	19,1	23,3	28,9	31,8	41	33,4	46,2	52,3	60,3	68,1	73,2	87,8	95,4
Sensible cooling capacity	(1)	kW	4,95	7,2	9,2	16,3	18,2	23,3	28,8	29,9	41	33,4	46,2	49,9	60,3	68,1	70,1	87,8	91,8
SHR	(1)		1,00	1,00	0,96	1,00	0,95	1,00	1,00	0,94	1,00	1,00	1,00	0,95	1,00	1,00	0,96	1,00	0,96
Compressors absorbed power		kW	1,22	1,69	2,20	3,64	4,31	4,93	6,00	6,93	7,86	7,26	9,85	12,02	12,02	13,86	15,69	17,70	21,34
EC radial fans power abs.		kW	0,16	0,40	0,40	0,84	0,84	1,35	1,80	1,80	3,20	1,30	3,20	3,20	4,50	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,13	0,27	0,27	0,53	0,53	0,89	1,69	1,69	3,51	2,09	3,51	3,51	5,11	5,11	5,11	6,72	6,72
VENTILATION																			
No. EC radial fans			1	1	1	2	2	1	1	1	2	2	2	2	3	3	3	3	3
No. HP EC radial fans			1	1	1	2	2	1	1	1	2	2	2	2	3	3	3	4	4
Sound pressure level	(5)	dB(A)	43	50	50	53	53	56	60	60	64	59	64	64	67	67	67	67	67
HUMIDIFIER																			
Capacity		kg/h	3	3	3	5	5	5	5	5	5	5	5	5	8	8	8	8	8
ELECTRICAL HEATERS																			
Steps			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Heating capacity		kW	4	4	4	8	8	9	9	9	15	15	15	15	18	18	18	18	18
DIMENSIONS																			
Length		mm		600		10	000		1000			15	50			2100		26	650
Depth		mm		500		5	00		790			79	90			790		7	90
Height		mm		1980		19	980		1980			19	80			1980		19	980

### NOTES

- 1) Air IN 24°C-50%, cond. water temperature. 45°C ESP 20Pa
- 5) Measured at 1,5m height, 2m in front of the unit in free field

### OPTIONS/ACCESSORIES

- Remote user terminal
- Electric heating coil
- Water heating coilHumidifier
- HP EC radial fans (High Pressure)

- Vibration isolation frame with rubber mountings
- Air distribution plenum
- Soundproof plenum
- Interface electronic board

# AWO / AWU 05÷90







### AWO / AWU

Close control air conditioner

Type: DUAL FLUID, AIR COOLED, upflow or downflow version

Configurations	Versions	
BASIC For applications up to 32°C air intake	BASIC	Cooling only without condensation control device
	MOD_A	Cooling only with condensation control device with speed regulation for the external unit.  For closed circuit installation
	MOD_B	Cooling only with condensation control device with pressure valve.  For open circuit installation (well water)

### **UNIT DESCRIPTION**

Ductable close control air-conditioners with capacities ranging from 5 to 99 kW for vertical installation and cooling only, with optional heating by means of heating element or hot water, optional humidifier and dehumidifier for precise temperature and humidity control.

Particularly suitable for IT environments and technological applications, ACCURATE AW is available standard with 50Hz and 60Hz power supply (400V/3N/50Hz, 230V/3/60Hz, 380V/3/60Hz, 460V/3/60Hz).

### STANDARD UNIT COMPOSITION

- Unit for indoor or outdoor installation
- Maximum resistance to rust thanks to galvanized sheet metal structures and panels with powder-coated paint finish. The panels are lined with sound-insulating material.
- The reliability and functionality of the compressor and all the other components are guaranteed by partners who are world leaders in their sector.
- New EC fans with electronically commutated motors in order to increase energy savings and reduce noise emissions.
- Condensation control for minimum noise (standard).
- Standard G4 filtering section, F5-F8 optional, under CEN-EN 779 rule with 90,1% degrees of separation ASHRAE.
  The filter is the self-extinguishing type.

- The microprocessor controls the compressor activation times with FIFO logic, thereby regulating the cooling capacity; it also controls the operating alarms with the possibility of interfacing to supervisor and remote servicing systems.
- Electrical box under IEC 204-1/EN60204-1 rules.
- Refrigerant circuit consisting of the standard version of a thermostat with a valve for internal pressure relief, a solenoid valve, a high/low pressure safety pressure switch, a liquid indicator light and a dehydrating filter.

















Model			5	7	10	15	18	20	26	29	39	30	40	50	55	60	70	80	90
Frame				F1		F	2		F3			F	4			F5		F	<del>-</del> 6
No. Circuits/ No. Compressors			1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant				R410A		R4	10A		R410A			R4	10A			R410A		R4	10A
Nominal air flow		mc/h	1800	2500	2500	4900	4900	6500	8000	8000	13500	10500	13500	13500	19000	19000	19000	25000	25000
Power supply		V/Ph/Hz	230/1/50	400/3	3N/50	400/	3N/50		400/3N/50	)		400/	3N/50			400/3N/50	)	400/	3N/50
PERFORMANCE																			
Total cooling capacity	(1)	kW	5,26	7,5	9,8	16,9	19,8	24,5	29,2	33,0	43,0	34,8	48,5	54,5	62,6	70,8	77,4	90,6	99,3
Sensible cooling capacity	(1)	kW	5,08	7,5	9,3	16,9	18,3	23,8	28,3	29,9	43,0	34,8	48,4	49,9	62,6	69,1	71,1	90,0	92,8
SHR	(1)		0,97	1,00	0,95	1,00	0,92	0,97	0,97	0,91	1,00	1,00	1,00	0,92	1,00	0,98	0,92	0,99	0,93
Compressors absorbed power		kW	1,1	1,47	1,91	3,26	3,93	4,28	5,38	6,24	6,91	6,42	8,53	10,76	10,77	12,38	13,54	15,90	19,15
EC radial fans power abs.		kW	0,16	0,40	0,40	0,84	0,84	1,35	1,80	1,80	3,20	1,30	3,20	3,20	4,50	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,13	0,27	0,27	0,53	0,53	0,89	1,69	1,69	3,51	2,09	3,51	3,51	5,11	5,11	5,11	6,72	6,72
VENTILATION																			
No. EC radial fans			1	1	1	2	2	1	1	1	2	2	2	2	3	3	3	3	3
No. HP EC radial fans			1	1	1	2	2	1	1	1	2	2	2	2	3	3	3	4	4
Sound pressure level	(5)	dB(A)	43	50	50	53	53	56	60	60	64	59	64	64	67	67	67	67	67
HUMIDIFIER								•											
Capacity		kg/h	3	3	3	5	5	5	5	5	5	5	5	5	8	8	8	8	8
ELECTRICAL HEATERS						•		•											
Steps			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Heating capacity		kW	4	4	4	8	8	9	9	9	15	15	15	15	18	18	18	18	18
DIMENSIONS																			
Length		mm		600		10	000		1000			15	i50			2100		26	650
Depth		mm		500		5	00		790			79	90			790		7	90
Height		mm		1980		19	980		1980			19	180			1980		19	980

### NOTES

### OPTIONS/ACCESSORIES

- Remote user terminal
- Electric heating coil
- Water heating coilHumidifier
- HP EC radial fans (High Pressure)

- Vibration isolation frame with rubber mountings
- Air distribution plenum
- Soundproof plenum
- Interface electronic board

<sup>1)</sup> Air IN 24°C-50%, cond. water temperature 30-35°C - ESP 20Pa

<sup>5)</sup> Measured at 1,5m height, 2m in front of the unit in free field

# ADO / ADU 20÷90







### ADO / ADU

Close control air conditioner

Type: DUAL FLUID, AIR COOLED, upflow or downflow version

Configurations	Version	s
BASIC For applications up to 32°C air intake	BASIC	Cooling only without condensation control device
SMART For applications up to 40°C air intake	MOD	Cooling only with condensation control device through external unit fan regulation
	LT	Low temperatures version (-45°C) with a condensation control device through external unit speed regulation.

### **UNIT DESCRIPTION**

Ductable close control air-conditioning units with capacity ranging from 24 to 99 kW for vertical installation and cooling only, with optional heating by means of heating elements and hot water, optional humidifier and dehumidifier for precise temperature and humidity control. Units are fitted with EC fans (upflow or downflow) and are connected to two circuits: a PRIMARY chilled water circuit connected to an external chiller, and a SECONDARY circuit working as back-up.

Particularly suitable for IT environments and technological applications, ACCURATE AD is available standard with 50Hz and 60Hz power supply (400V/3N/50Hz, 230V/3/60Hz, 380V/3/60Hz, 460V/3/60Hz).

### STANDARD UNIT COMPOSITION

- Unit for indoor or outdoor installation
- Maximum resistance to rust thanks to galvanized sheet metal structures and panels with powder-coated paint finish. The panels are lined with sound-insulating material.
- The reliability of all the components is guaranteed by partners who are world leaders in their sector.
- NEW EC fans with electronic commutation in order to maximize the energy savings and reduce the noise emissions.
- Standard G4 filtering section, F5-F8 optional, under CEN-EN 779 rule with 90,1% degrees of separation ASHRAE. The filter is the self-extinguishing type.

- The microprocessor controls all the main functions of the air conditioners; it also controls the operating alarms with the possibility of interfacing to supervisor and remote servicing systems.
- Electrical box under IEC 204-1/EN60204-1 rules.



















Model			20	26	29	39	30	40	50	60	70	80	90
Frame				F3			F	4		F	<del></del> 5	F	6
No. Circuits/ No. Compressors			1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant				R410A			R4	10A		R4	10A	R4	10A
Nominal air flow		mc/h	6000	7500	8000	13000	10000	13000	13500	18000	19000	24000	25000
Power supply		V/Ph/Hz		400/3N/50			400/	3N/50		400/3	3N/50	400/3	3N/50
BASIC CONFIGURATION													
DX PERFORMANCE													
Total cooling capacity	(1)	kW	23,7	29,4	32,7	42,2	36,7	47,6	55,1	62,2	75,5	86,3	98,8
Sensible cooling capacity	(1)	kW	21,8	27,9	30,2	42.2	36,2	47,0	50,7	62,2	71,0	86,1	91,0
SHR	(1)		0,92	0,95	0,92	1,00	0,99	0,99	0,92	1,00	0,94	1,00	0,92
Compressors absorbed power		kW	4,9	6.0	6.8	7,9	7,2	9.9	11,7	12,0	15,4	17,7	21,4
EC radial fans power abs.		kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
CW PERFORMANCE			-,	,,,,	,	-7	,,,,			- 7, -			
Total cooling capacity	(2)	kW	23,8	28,1	29,5	50,0	41,0	50,0	51,4	65,0	67,6	91,0	91,0
Sensible cooling capacity	( )	kW	21,8	26,4	27,6	46,3	37,0	46,3	47,5	62,2	64,5	85,0	85,0
SHR			0,92	0,94	0,94	0,93	0,90	0,93	0,92	0,96	0,95	0,93	0,93
Pressure drop		kPa	26	35	48	46	31	45	61	37	42	47	47
SMART CONFIGURATION										-			
DX PERFORMANCE													
Total cooling capacity	(3)	kW	26,8	32,7	36,7	46,3	40,5	51,5	60,1	76,2	83,0	102,4	112,3
Sensible cooling capacity	(3)	kW	26,8	32,7	36,7	46,3	40,5	51,5	60,1	76,2	83,0	101,9	111,8
SHR	(3)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Compressors absorbed power		kW	5,3	6,3	7,3	8,3	7,3	10,5	12,7	14,7	16,6	18,9	22,6
EC radial fans power abs.		kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
CW PERFORMANCE		•										•	
Total cooling capacity	(4)	kW	37,2	44,6	47,0	79,8	64,4	79,8	82,3	106,7	111,4	146,4	146,4
Sensible cooling capacity	(4)	kW	37,2	44,6	47,0	79,8	64,4	79,8	82,3	106,7	111,4	146,4	146,4
SHR			1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Pressure drop		kPa	49	69	77	65	62	65	69	52	57	57	57
VENTILATION													
No. EC radial fans			1	1	1	2	2	2	2	3	3	3	3
No. HP EC radial fans			1	1	1	2	2	2	2	3	3	3	3
Sound pressure level	(5)	dB(A)	56	60	60	64	59	64	64	67	67	67	67
HUMIDIFIER		•											
Capacity		kg/h	5	5	5	5	5	5	5	8	8	8	8
ELECTRICAL HEATERS													
Steps			3	3	3	3	3	3	3	3	3	3	3
Heating capacity		kW	9	9	9	15	15	15	15	18	18	18	18
DIMENSIONS													
Length		mm	1000	1000	1000	1550	1550	1550	1550	2100	2100	2650	2650
Depth		mm	790	790	790	790	790	790	790	790	790	790	790
Height		mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
													-

- 1) Air IN 24°C/50%, cond. temperature 45°C ESP 20Pa
- 2) Air IN 24°C/50%, water temperature 7-12°C- ESP 20Pa
- 3) Air IN 35°C/30%, cond. temp. 45°C ESP 20Pa
- 4) Air IN 35°C/30%, water temperature 12-18°C- ESP 20Pa
- 5) Measured at 1,5m height in front of the unit in free field

### OPTIONS/ACCESSORIES

- Remote user terminal
- Electric heating coil
- Water heating coil
- Humidifier
- HP EC radial fans (High Pressure)

- Vibration isolation frame with rubber mountings
- Air distribution plenum
- Soundproof plenum
- Interface electronic board

# ATO / ATU 20÷90







### ATO / ATU

Close control air conditioner

Type: DUAL FLUID, WATER COOLED, upflow or downflow version

### Configurations

### **BASIC**

For applications up to 32°C air intake

### **SMART**

For applications up to 40°C air intake

### Versions

BASIC Cooling only without

condensation control device

MOD\_A Cooling only with condensation control device with speed regulation for external unit.

For closed circuit installation

MOD\_B Cooling only with condensation control

device with pressure valve.

For open circuit installation (well water)

### **UNIT DESCRIPTION**

Ductable close control air-conditioning units with capacity ranging from 25 to 102 kW for vertical installation and cooling only, with optional heating by means of heating elements and hot water, optional humidifier and dehumidifier for precise temperature and humidity control. Units are fitted with EC fans (upflow or downflow) and are connected to two circuits: a PRIMARY chilled water circuit connected to an external chiller, and a SECONDARY circuit working as back-up.

Particularly suitable for IT environments and technological applications, ACCURATE AT is available standard with 50Hz and 60Hz power supply (400V/3N/50Hz, 230V/3/60Hz, 380V/3/60Hz, 460V/3/60Hz).

### STANDARD UNIT COMPOSITION

- Unit for indoor or outdoor installation
- Maximum resistance to rust thanks to galvanized sheet metal structures and panels with powder-coated paint finish. The panels are lined with sound-insulating material.
- The reliability of all the components is guaranteed by partners who are world leaders in their sector.
- NEW EC fans with electronic commutation in order to maximize the energy savings and reduce the noise emissions.
- Standard G4 filtering section, F5-F8 optional, under CEN-EN 779 rule with 90,1% degrees of separation ASHRAE. The filter is the self-extinguishing type.

- The microprocessor controls all the main functions of the air conditioners; it also controls the operating alarms with the possibility of interfacing to supervisor and remote servicing systems.
- Electrical box under IEC 204-1/EN60204-1 rules.

















Model			20	26	29	39	30	40	50	60	70	80	90
Frame				F3			F	4		F	======================================	F	6
No. Circuits/ No. Compressors			1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant				R410A			R4	10A		R4	10A	R4	10A
Nominal air flow		mc/h	6000	7500	8000	13000	10000	13000	13500	18000	19000	24000	25000
Power supply		V/Ph/Hz		400/3N/50			400/	3N/50		400/3	3N/50	400/3	3N/50
BASIC CONFIGURATION													
DX PERFORMANCE													
Total cooling capacity	(1)	kW	24,9	30,6	32,3	47,3	38,1	50,0	54,5	70,3	76,7	91,8	102,0
Sensible cooling capacity	(1)	kW	22,8	28,3	30,0	46.9	36,7	47,9	50,7	66,8	71,1	88,2	92,2
SHR	(1)		0,92	0,92	0,93	0,99	0,96	0,96	0,93	0,95	0,93	0,96	0,90
Compressors absorbed power		kW	4,4	5,4	6.1	8.0	6,4	8.6	10,6	12,3	13,3	16,0	19.3
EC radial fans power abs.		kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
CW PERFORMANCE													
Total cooling capacity	(2)	kW	23,8	28,1	29,5	50,0	41,0	50,0	51,4	65,0	67,6	91,0	91,0
Sensible cooling capacity	(2)	kW	21,8	26,4	27,6	46,3	37,0	46,3	47,5	62,2	64,5	85,0	85,0
SHR	(-/		0,92	0,94	0,94	0,93	0,90	0,93	0,92	0,96	0,95	0,93	0,93
Pressure drop		kPa	26	35	48	46	31	45	61	37	42	47	47
SMART CONFIGURATION										-			
DX PERFORMANCE													
Total cooling capacity	(3)	kW	27,3	33,3	36,5	48,1	41,3	52,7	61,2	75,6	86,1	104,9	114,7
Sensible cooling capacity	(3)	kW	27,3	33,3	36,5	48,1	41,3	52,7	61,2	75,6	86,1	104,3	114,2
SHR	(3)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	0,99	1,00
Compressors absorbed power		kW	4,9	5,9	7,4	7,5	6,9	9,8	11,9	15,0	14,7	17,6	21,0
EC radial fans power abs.		kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
CW PERFORMANCE													
Total cooling capacity	(4)	kW	37,2	44,6	47,0	79,8	64,4	79,8	82,3	106,7	111,4	146,4	146,4
Sensible cooling capacity	(4)	kW	37,2	44,6	47,0	79,8	64,4	79,8	82,3	106,7	111,4	146,4	146,4
SHR			1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Pressure drop		kPa	49	69	77	65	62	65	69	52	57	57	57
VENTILATION													
No. EC radial fans			1	1	1	2	2	2	2	3	3	3	3
No. HP EC radial fans			1	1	1	2	2	2	2	3	3	3	3
Sound pressure level	(5)	dB(A)	56	60	60	64	59	64	64	67	67	67	67
HUMIDIFIER													
Capacity		kg/h	5	5	5	5	5	5	5	8	8	8	8
ELECTRICAL HEATERS													
Steps			3	3	3	3	3	3	3	3	3	3	3
Heating capacity		kW	9	9	9	15	15	15	15	18	18	18	18
DIMENSIONS		,				•							
Length		mm	1000	1000	1000	1550	1550	1550	1550	2100	2100	2650	2650
Depth		mm	790	790	790	790	790	790	790	790	790	790	790
Height		mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980

- 1) Air IN 24°C/50%, cond. water temperature 30-35°C ESP 20Pa
- 2) Air IN 24°C/50%, water temperature 7-12°C- ESP 20Pa 3) Air IN 35°C/30%, cond. temp. 30-35°C ESP 20Pa
- 4) Air IN 35°C/30%, water temperature 12-18°C- ESP 20Pa
- 5) Measured at 1,5m height in front of the unit in free field

### OPTIONS/ACCESSORIES

- Remote user terminal
- Electric heating coil
- Water heating coil
- Humidifier
- HP EC radial fans (High Pressure)

- Vibration isolation frame with rubber mountings
- Air distribution plenum
- Soundproof plenum
- Interface electronic board

## AFO / AFU 20÷90







### AFO / AFU

Close control air conditioner

Type: FREECOOLING, WATER COOLED, upflow or downflow version

Configurations	Versions	
BASIC For applications up to 32°C air intake	BASIC	Cooling only with condensation control device through flooding valve
SMART For applications up to 40°C air intake	MOD_A	Cooling only with condensation control device through flooding valve and speed regulator for external unit

### **UNIT DESCRIPTION**

Ductable close control air-conditioning units with capacity ranging from 25 to 102 kW for vertical installation and cooling only, with optional heating by means of heating elements and hot water, optional humidifier and dehumidifier for precise temperature and humidity control.

Units are fitted with EC fans (upflow or downflow) and are connected to two circuits: a PRIMARY chilled water circuit connected to an external chiller, a SECONDARY circuit working as back-up.

Particularly suitable for IT environments and technological applications, ACCURATE AF is available standard with 50Hz and 60Hz power supply (400V/3N/50Hz, 230V/3/60Hz, 380V/3/60Hz, 460V/3/60Hz).

### STANDARD UNIT COMPOSITION

- Unit for indoor or outdoor installation
- Maximum resistance to rust thanks to galvanized sheet metal structures and panels with powder-coated paint finish. The panels are lined with sound-insulating material.
- The reliability of all the components is guaranteed by partners who are world leaders in their sector.
- NEW EC fans with electronic commutation in order to maximize the energy savings and reduce the noise emissions.
- Standard G4 filtering section, F5-F8 optional, under CEN-EN 779 rule with 90,1% degrees of separation ASHRAE.
  The filter is the self-extinguishing type.

- The microprocessor controls all the main functions of the air conditioners; it also controls the operating alarms with the possibility of interfacing to supervisor and remote servicing systems.
- Electrical box under IEC 204-1/EN60204-1 rules.

















Model			20	26	29	39	30	40	50	60	70	80	90
Frame				F3			F	4		F	5	F	6
No. Circuits/ No. Compressors			1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant				R410A			R4	10A		R4	10A	R4	10A
Nominal air flow		mc/h	6000	7500	8000	13000	10000	13000	13500	18000	19000	24000	25000
Power supply	,	V/Ph/Hz		400/3N/50			400/	3N/50		400/3	3N/50	400/3	3N/50
BASIC CONFIGURATION													
DX PERFORMANCE													
Total cooling capacity	(1)	kW	24,9	30,6	32,3	47,3	38,1	50,0	54,5	70,3	76,7	91,8	102,0
Sensible cooling capacity	(1)	kW	22,8	28,3	30,0	46.9	36,7	47,9	50,7	66,8	71,1	88,2	92,2
SHR	(1)		0,92	0,92	0,93	0,99	0,96	0,96	0,93	0,95	0,93	0,96	0,90
Compressors absorbed power		kW	4,4	5,4	6.1	8.0	6,4	8.6	10.6	12,3	13,3	16,0	19.3
EC radial fans power abs.		kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
PERFORMANCE IN FREE-COOLING			-,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	1,71	,,,,			- 7, -			
Total cooling capacity	(2)	kW	19,9	24,0	25,1	40,9	33,6	41,5	43,8	56,6	58,0	76,7	78,2
Sensible cooling capacity	(2)	kW	19,9	24,0	25,1	40,9	33,6	41,5	43,8	56,6	58,0	76,7	78,2
SHR	(-)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00
Pressure drop		kPa	64	89	84	86	63	83	128	89	100	99	124
SMART CONFIGURATION		7.0											
DX PERFORMANCE													
Total cooling capacity	(3)	kW	27,3	33,3	36,5	48,1	41,3	52,7	61,2	75,6	86,1	104,9	114,7
Sensible cooling capacity	(3)	kW	27,3	33,3	36,5	48,1	41,3	52,7	61,2	75,6	86,1	104,3	114,2
SHR	(3)		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	0,99	1,00
Compressors absorbed power		kW	4,9	5,9	7,4	7,5	6,9	9,8	11,9	15,0	14,7	17,6	21,0
EC radial fans power abs.		kW	1,35	1,80	1,80	3,20	1,30	3,19	3,10	4,50	4,50	6,10	6,10
HP EC radial fans power abs.		kW	0,89	1,69	1,69	3,50	2,09	3,49	3,50	5,10	5,10	6,80	6,80
PERFORMANCE IN FREE-COOLING						•						•	
Total cooling capacity	(4)	kW	39,1	47,1	50,0	81,2	66,5	83,0	87,4	109,6	115,9	153,2	155,9
Sensible cooling capacity	(4)	kW	37,5	45,9	48,7	80,5	64,0	81,1	84,4	107,2	113,0	149,8	150,6
SHR			0,96	0,97	0,97	0,99	0,96	0,98	0,97	0,98	0,97	0,98	0,97
Pressure drop		kPa	59	86	63	69	60	53	72	67	59	58	70
VENTILATION													
No. EC radial fans			1	1	1	2	2	2	2	3	3	3	3
No. HP EC radial fans			1	1	1	2	2	2	2	3	3	3	3
Sound pressure level	(5)	dB(A)	56	60	60	64	59	64	64	67	67	67	67
HUMIDIFIER		•											
Capacity		kg/h	5	5	5	5	5	5	5	8	8	8	8
ELECTRICAL HEATERS													
Steps			3	3	3	3	3	3	3	3	3	3	3
Heating capacity		kW	9	9	9	15	15	15	15	18	18	18	18
DIMENSIONS													
Length		mm	1000	1000	1000	1550	1550	1550	1550	2100	2100	2650	2650
Depth		mm	790	790	790	790	790	790	790	790	790	790	790
Height		mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980

- 1) Air IN 24°C/50%, cond. water temperature 30-35°C ESP 20Pa
- 2) Air IN 24°C/50%, water temperature 10°C, same water flow as in the DX operation ESP 20Pa 3) Air IN 35°C/30%, cond. temp. 30-35°C ESP 20Pa
- 4) Air IN 35°C/30%, water temperature 10°C, same water flow as in the DX operation ESP 20Pa
- 5) Measured at 1,5m height in front of the unit in free field

### OPTIONS/ACCESSORIES

- Remote user terminal
- Electric heating coil
- Water heating coil
- Humidifier
- HP EC radial fans (High Pressure)

- Vibration isolation frame with rubber mountings
- Air distribution plenum
- Soundproof plenum
- Interface electronic board











### BRE (R410A)

Air cooled remote condensers with axial fans for direct expansion units

Available versions **BASIC** standard (+46°C/-25°C, Text.)

LT Low temperature (+46°C/-45°C, Text.) LN Low Noise (+46°C/-45°C, Text.)

### Accessories

Condenser leg kit for vertical air flow version

					***					
BRE BASIC - LT			007m	014m	022m	027m	044m	051m	065m	076m
Power Supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
PERFORMANCE										
NOMINAL CHARACTERISTICS										
Nominal Capacity	(1)	kW	6,93	13,4	21,7	26,6	43,5	50,4	65,1	76,2
No. Circuits		N°	1	1	1	1	1	1	1	1
Total power input	(1)	kW	0,15	0,22	0,60	0,60	1,20	1,20	1,80	1,80
FANS										
Air flow		m³/h	2300	5000	8200	7200	16400	15200	24600	22800
NOISE LEVEL										
Noise Pressure	(2)	dB(A)	43	37	43	43	46	46	48	48
DIMENSIONS										
Length	(3)	mm	740	1240	1360	1360	2360	2360	3360	3360
Depth	(3)	mm	584	814	1114	1114	1114	1114	1114	1114
Height	(3)	mm	440	596	703	703	703	703	703	703

BRE BASIC - LT			054b	065b	076b	100b	116b	134b	190b	
Power Supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50	
PERFORMANCE										
NOMINAL CHARACTERISTICS										
Nominal Capacity	(1)	kW	53,3	65,1	76,2	100	116	134	187	
No. Circuits		N°	2	2	2	2	2	2	2	
Total power input	(1)	kW	1,20	1,80	1,80	2,40	3,00	3,00	5,82	
FANS										
Air flow		m³/h	14400	24600	22800	28800	38000	35850	53000	
NOISE LEVEL										
Noise Pressure	(2)	dB(A)	46	48	48	49	50	50	53	
DIMENSIONS										
Length	(3)	mm	2360	3360	3360	4360	5360	5360	4815	
Depth	(3)	mm	1114	1114	1114	1114	1114	1114	1328	
Height	(3)	mm	703	703	703	703	703	703	965	

					***					
BRE / LN			007m	014m	022m	027m	044m	<u>051m</u>	<u>065m</u>	076m
Power Supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
PERFORMANCE										
NOMINAL CHARACTERISTICS										
Nominal Capacity	(1)	kW	9,60	14,1	20,0	28,2	42,3	50,0	73,1	75,5
No. Circuits		N°	1	1	1	1	1	1	1	1
Total power input	(1)	kW	0,13	0,60	0,26	1,20	1,80	1,80	2,40	2,40
FANS										
Air flow		m³/h	3600	6000	6500	12000	18000	16500	22000	20300
NOISE LEVEL										
Noise Pressure	(2)	dB(A)	29	34	32	37	38	38	39	39
DIMENSIONS										
Length	(3)	mm	1240	1360	2120	2360	3360	3360	4360	4360
Depth	(3)	mm	764	1114	764	1114	1114	1114	1114	1114
Height	(3)	mm	596	703	596	703	703	703	703	703

BRE / LN			054b	065b	076b	100b	116b	134b	190b	
Power Supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50	
PERFORMANCE										
NOMINAL CHARACTERISTICS										
Nominal Capacity	(1)	kW	55,3	73,1	75,5	99,1	118	134	187	
No. Circuits		Ν°	2	2	2	2	2	2	2	
Total power input	(1)	kW	1,80	2,40	2,40	3,00	3,36	3,36	3,32	
FANS										
Air flow		m³/h	16000	22000	20300	27050	28560	28560	58000	
NOISE LEVEL										
Noise Pressure	(2)	dB(A)	38	39	39	40	43	43	45	
DIMENSIONS										
Length	(3)	mm	3360	4360	4360	5360	5560	5560	6290	
Depth	(3)	mm	1114	1114	1114	1114	1070	1070	1328	
Height	(3)	mm	703	703	703	703	747	747	965	

- NOTES

  1) Exchanger air (in) 35 °C;  $\Delta T = 13$  K.
  2) Average sound pressure level, at a distance of 10 m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.
  3) Unit in standard configuration/execution, without optional accessories.









**BDC** Dry Cooler with axial fans

Available versions **BASIC** standard (+46°C/-25°C, Text.)

LT Low temperature (+46°C/-45°C, Text.) LN Low Noise (+46°C/-45°C, Text.)

### Accessories

Condenser leg kit for vertical air flow version

BDC BASIC - LT			008m	013m	030m	039m	052m	062m
Power Supply	\	//ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
PERFORMANCE								
NOMINAL CHARACTERISTICS								
Nominal Capacity	(1)	kW	7,90	17,0	33,0	40,5	61,0	68,0
No. Circuits		N°	1	1	1	1	1	1
Total power input	(1)	kW	0,22	0,60	1,20	1,20	1,80	1,80
FANS								
Air flow		m³/h	4410	8780	17560	16820	25230	23610
NOISE LEVEL								
Noise Pressure	(2)	dB(A)	39	46	49	49	51	51
DIMENSIONS								
Length	(3)	mm	1175	1325	2425	2425	3525	3525
Depth	(3)	mm	872	1168	1168	1168	1168	1168
Height	(3)	mm	555	690	690	690	690	690

BDC BASIC - LT			078m	092m	103m	123m	190m	210m
Power Supply		V/ph/Hz	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE								
NOMINAL CHARACTERISTICS								
Nominal Capacity	(1)	kW	83,0	98,5	121	135	176	210
No. Circuits		Ν°	1	1	1	1	1	1
Total power input	(1)	kW	2,40	3,60	3,60	3,60	7,76	9,70
FANS								
Air flow		m³/h	33640	52680	50460	47220	71920	93300
NOISE LEVEL								
Noise Pressure	(2)	dB(A)	52	54	54	56	54	55
DIMENSIONS								
Length	(3)	mm	4625	3658	3658	3658	6290	7765
Depth	(3)	mm	1168	2286	2286	2286	1328	1328
Height	(3)	mm	690	760	760	760	965	965

BDC / LN			008m	013m	030m	039m	052m	062m
Power Supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
PERFORMANCE								
NOMINAL CHARACTERISTICS								
Nominal Capacity	(1)	kW	7,50	14,0	32,0	40,5	54,0	65,5
No. Circuits		Ν°	1	1	1	1	1	1
Total power input	(1)	kW	0,12	0,60	1,20	1,80	2,40	2,40
FANS								
Air flow		m³/h	2930	6410	12160	19230	25640	24320
NOISE LEVEL								
Noise Pressure	(2)	dB(A)	31	37	39	41	42	42
DIMENSIONS								
Length	(3)	mm	1175	1325	2425	3525	4625	4625
Depth	(3)	mm	872	1168	1168	1168	1168	1168
Height	(3)	mm	555	690	690	690	690	690

BDC / LN			078m	092m	103m	123m	190m	210m
Power Supply		V/ph/Hz	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE								
NOMINAL CHARACTERISTICS								
Nominal Capacity	(1)	kW	82,0	96,0	107	128	184	203
No. Circuits		Ν°	1	1	1	1	1	1
Total power input	(1)	kW	3,00	1,44	1,92	1,92	4,98	4,98
FANS								
Air flow		m³/h	30400	36480	51280	48640	76420	67170
NOISE LEVEL								
Noise Pressure	(2)	dB(A)	43	44	45	45	42	42
DIMENSIONS								
Length	(3)	mm	5725	3658	4758	4758	6290	6290
Depth	(3)	mm	1168	2286	2286	2286	2393	2393
Height	(3)	mm	690	760	760	760	965	965

- NOTES

  1) Exchanger air (in) 35 °C;  $\Delta T = 13$  K.

  2) Average sound pressure level, at a distance of 10 m, for units in a free field on a reflecting surface. The average sound pressure level is calculated based on the sound power level measured in accordance with ISO 3744.

  3) Unit in standard configuration/execution, without optional accessories.

# "By far the best proof is experience"

Sir Francis Bacon British Philosopher (1561-1626)













Data center Cooling capacity: 1870 kW Installed machines: 2x NECS-D/SL, 6x i-AF, 1x MANAGER 3000





**Bouygues Telecom** Several applications in France **Financial institutions** Cooling capacity: 433,9 kW Installed machines: 2x i-AX 18, 15x i-AX 29



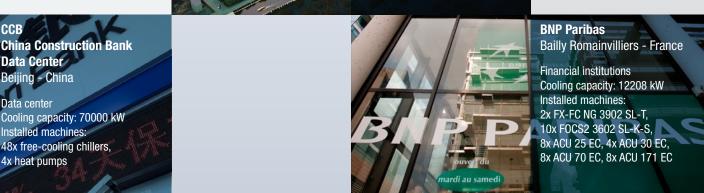




All around the world, in the most important data centers, and in all projects where efficiency, quality and reliability are key drivers, Climaveneta high precision air conditioners are the best guarantee.









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