

CLIMA-HT

AIR CONDITIONING UNITS
FOR CLEAN ROOMS



KEY POINTS



Compact



Energy saving



Total BUS
remote controls



Easy to instal



AIR CONDITIONING UNIT

Specific conditioning units for clean rooms that require the maintenance of hygrometric conditions with restricted tolerances. The particular constructional features mean extreme simplicity of installation and maintenance, ensuring the complete inspection of the device from the front and the quick replacement of each component. The conditioning unit is controlled by a programmable microprocessor system to meet the particular needs of each clean room. The functions to control all the aeraulic, electric and refrigerator components, mean the unit is effectively an integrated system for the precise maintenance and monitoring of temperature, humidity, pressure, ventilation and air purity.

MICROPROCESSOR CONTROLS



Climate-HT series units are equipped with specific control software developed on the basis of experience gained over the years in the production of Cleanrooms, to meet the needs of different industrial sectors. It is a truly integrated system that allows total control of all the Cleanroom parameters, including those typical of the air conditioner, such as

- Temperature
- Humidity
- Airflow
- Ambient pressure
- Clogged pre-filters and HEPA filters

The PLC is equipped with an interface that allows managing, via Modbus, up to 100 Filter Fan Units (FFU) series AIR-1 and HT-AIR-10-ML, normally used for room air circulation. Of each unit the system monitors:

- Start / Stop.
- State / alarm.
- Set operating point.
- Class.
- Operating mode (normal / reduced).

The application also allows you to:

- Display the alarms detected in their acoustic signal by means of the buzzer
- The display of all set sizes
- The management of the data logger
- The remote control of all parameters via web interface to any user in charge of the Cleanroom controls.

STANDARD FEATURES

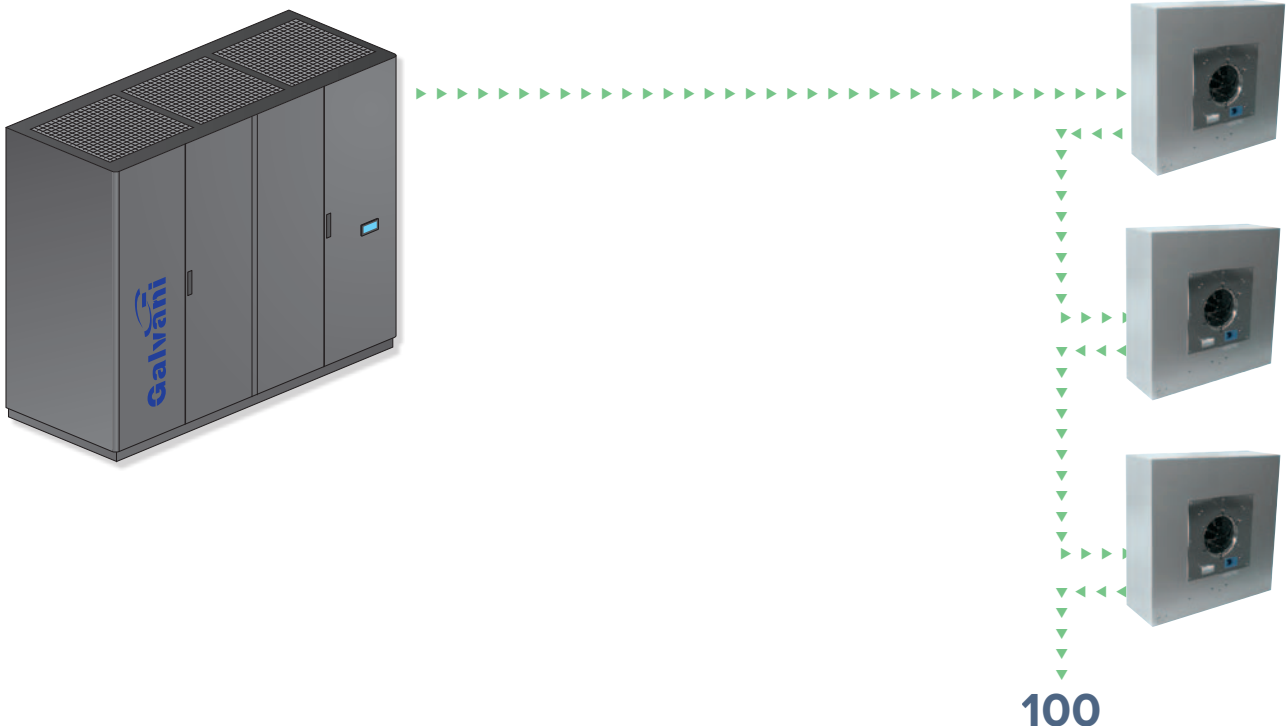


- Unit with variable speed BLDC compressor.
- Continuous modulation of the cooling capacity.
- Environmentally friendly refrigerant R410A.
- Fans with reverse blades and EC series motors.
- Electric expansion valve electronically control.
- Programmable microprocessor control with LCD display.
- Drain pan made of stainless steel AISI 403.
- Painted RAL 7016 panels and rounded edges.
- Painted interior panels.
- Finned battery pack with hydrophilic treatment.
- Airflow Sensor.
- G4 class air filter.
- Room temperature and pressure sensors.
- Front access for maintenance / control of components even with the unit running.
- Technical compartment separate from the airflow.
- Automatic switches load protection.
- Rotalock connections for ease of installation.
- New design of the external panels with flathead screws of the same colour as the structure and special foam gasket seals to ensure maximum tightness

OPTIONS AND ACCESSORIES

- Automatic control of the airflow and the display.
- Dehumidification with humidity sensor.
- Humidifier with immersed electrodes.
- Humidifier with immersed electrodes, drain pump and cylinder that can be inspected.
- Electric heaters.
- Post-heating systems:
 - › Hot water coil with modulating valve;
 - › Hot gas battery with regulation;
 - › PRECISE – Hot gas battery with the modulation of the coolant flow.
- Flood, fire, smoke, additional T and humidity sensors.
- Module H500 Base.
- Base frame.
- Servo-controlled dampers for Base Module for the automatic adjustment of the ambient pressure.
- Air distribution plenum (horizontal or vertical).
- Serial cards for protocols: Carel / Modbus / LonWorks / Trend.
- HIWEB Hardware: Ethernet card for protocols: BACnet / SNMP.
- HIWEB Software: Ethernet card for Web connectivity.
- Touch-Screen colour graphic display.

FUNCTION DIAGRAM



TECHNICAL DATA

120 Hz		0091	0131	0241	0341	0462	0682	0902	
Total cooling power*	kW	9,5	12,6	25,1	35,6	47,7	70,7	87,3	
SHR	-	0,86	0,91	0,92	0,81	0,96	0,90	0,88	
Compressor absorbed power	kW	2,5	3,3	7,3	12,4	13,0	25,6	30,2	
Compressor absorbed current	A	3,8	5,3	11,7	19,8	24,0	40,9	48,3	
Airflow to evaporator	m ³ /h	2150	3700	6800	7280	14150	19420	22500	
Fan absorbed power	kW	0,2	0,4	0,9	1,1	2,3	2,6	3,8	
AESP @ max. fan speed	Pa	726	574	397	329	305	393	230	
Power	V/ph/Hz	400/3+N/50							
Compressor	Type	BLCD - Twin Rotary			BLCD - Scroll				
	N°	1	1	1	1	2	2	2	
Measurements (WXHXD)	mm	600 x 1875 x 600	900 x 1875 x 600	1010 x 1998 x 795	1280 x 1998 x 795	2030 x 1998 x 795	2510 x 1998 x 795	2510 x 1998 x 950	
Weight	kg	157	230	375	401	745	979	1013	

* Internal conditions 24°C with 10% renewal - External conditions 35°C.

CLIMA-HT

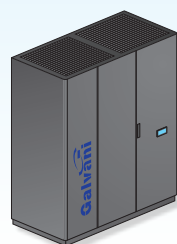
> Air conditioning unit for Cleanrooms with variable speed compressor



0091



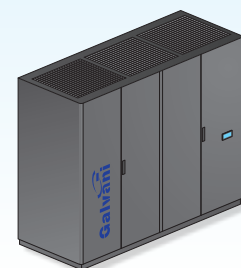
0131
0241



0341



0462



0682
0902

CLEAN ROOMS	DEDICATED SYSTEMS	CLEAN ROOM COMPONENTS	SPECIAL EQUIPMENT	PLANT
 MICROELECTRONICS	 PRINTED CIRCUITS	 FALSE CEILINGS	 AIR SHOWERS	 CONDIZIONING
 ELECTRONIC	 BOTTLING	 MOTORISED FANS	 TRANSFER HATCHES	 SUCTION
 PHARMACEUTICAL	 HOSPITALS	 WALLS	 CLEAN CABINS	 AIR DUCTING
 HOSPITALS	 PHARMACEUTICAL	 FLOATING FLOORS	 DUST REMOVAL	
 BOTTLING	 FOOD	 CEILING FIXTURES	 CHANGING ROOM FITTINGS	