



Compact air conditioning unit type **CLW-B** and **CLW-C** for the climate control of analysis and control cabinets installed in hazardous areas located in Refineries, Chemical and Petrochemical plants.

The units are designed to be easily installed directly on the side panel of the control cabinet.

Air conditioning units of the "type **CLW-B** and **CLW-C**" They are suitable for maintaining a constant temperature inside the control cabinet both in summer and winter; the units are available in two versions "cooling only" and "cooling-heating" depending on the installation needs; the entire range of units incorporates electronic temperature control on the control panel.

All components incorporated into the air conditioning units have "Ex-d" protection with ATEX certification, making them suitable for installations in Zone 1 and 2.

The units are built as standard in SS-304 quality stainless steel (SS-316 stainless steel on request), the units are completely autonomous and only require three-phase electrical power supply for their operation.

All components incorporated into the units have "Ex-d (ia)" protection, making them suitable for installations in zones 1 and 2, designed according to standards EN-80079-36:2017, EN-80079-37:2018, EN-14986:2017, EN-60079-0:2021, EN-60079-1:2015, EN-60079-7:2016, EN-60079-11:2013, EN-60079-18:2016.

Custom designed to meet customer needs and built as standard in SS-304 quality, the units are completely autonomous, requiring only three-phase electrical power supply for operation.





GENERAL FEATURES:

- ATEX certification, zones 1 & 2, II2G Ex dc (ia) IIC/IIB.
- Power supply voltage 380-420VAC/50Hz
- Ambient temperature -20°C to + 45°C.
- Ecological refrigerant gas R-407-C or R-134a
- Body made of thick SS-304, finished internally with 15mm thick thermal insulation, fire resistant M1 (self-extinguishing), the HAC unit is prepared to work in aggressive environments.
- High-efficiency condensing and evaporating coils constructed of copper tubing and aluminum fins, with a minimum fin spacing of 2.1mm.
- Evaporator condensate tray in SS-304.
- ATEX certified electric heater system with stainless steel heating elements.
- ATEX certified air filters located inside the HAC unit, filtration grade G4, guide-type mounting allowing easy access and filter replacement.
- Direct drive semi-hermetic compressor, ATEX certified.
- Copper cooling pipes.
- Air intake and condensation fans (anti-spark) to the cabin of axial type, direct motor-propeller drive, explosion-proof motor Exd.
- Exd explosion-proof power and control electrical panel constructed of low copper aluminum alloy with stainless steel hinges and screws, finished with RAL 7035 polyester paint, includes indicator lights, function selector, reset button, PLC control and protection for each motor, IP66 protection rating, installation with armored cables with IP66/IP68 cable glands, the unit incorporates a system of flashing lights to indicate the type of fault caused.
- Cabin temperature control by means of an electronic thermostat with display, ATEX certified, for zones 1, 2, 21 and 22 located inside the air conditioning unit.
- ATEX certified high and low refrigerant pressure transmitters for compressor and condenser fan control.
- ATEX certified high pressure safety valve for refrigerant gas.
- Thermostatic expansion valve.
- Grounding unit HAC welded to the structure.

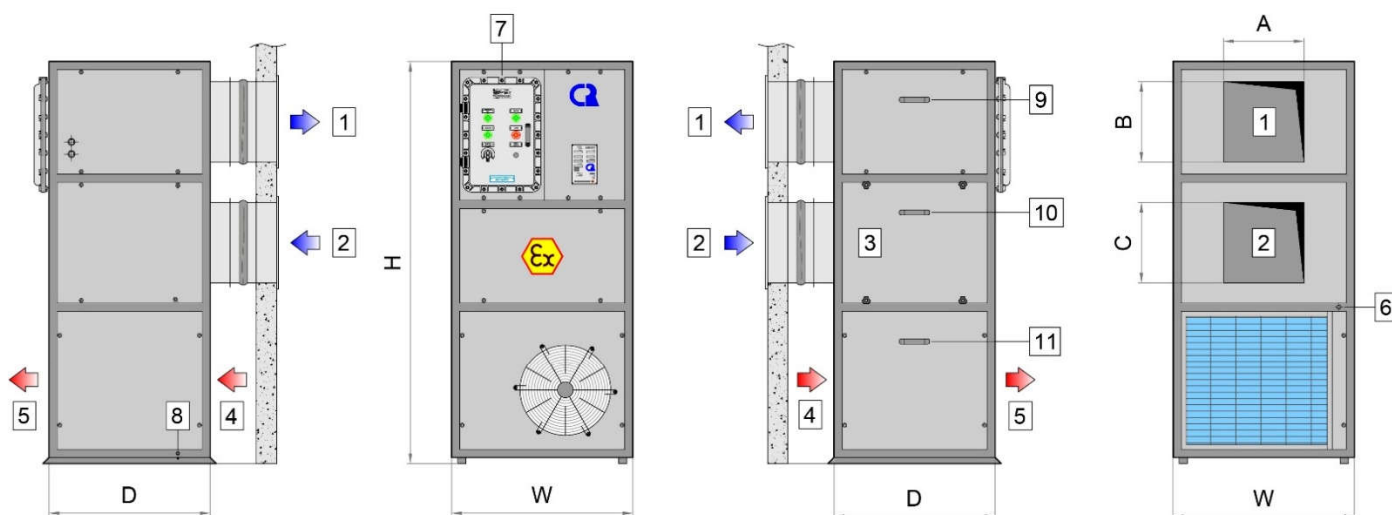
OPTIONAL:

- Power supply voltage 440-480VAC/60Hz
- Ambient temperature -40°C to + 55°C.
- Environmentally friendly refrigerant gases (Hydrocarbons) R-290; R-1270.
- Cooling system 2 x 100% - 2 x 50%.
- Electric heating system 2 x 100% - 2 x 50%.
- Case and covers made of SS-316.
- Condensing and evaporating batteries =
 - . Copper tubes and lacquered aluminum fins.
 - . Copper tubes and fins.
 - . Tubes and fins in SS-304.
 - . Tubes and fins in SS-316.
 - . Special anti-corrosion treatment with Blygold.
- Evaporator condensate tray in SS-316.
- Low pressure steam heating system.
- Compressor with oil resistance for low ambient temperatures, ATEX certified.
- Stainless steel cooling pipes.
- Exd explosion-proof power and control electrical panel constructed of SS-316L stainless steel, IP-66 protection rating.
- Remote control panel in painted aluminum or stainless steel.
- HMI control built into the HAC unit or remote within the Analyzer Cabinet, options available for zone 1 and 2.
- RS-485 / Ethernet serial port communication dialogue.
- Our technicians will update the HAC unit software via micro-SD card to be installed in the unit's PLC.
- Electronic temperature transmitter with stainless steel display, ATEX certified, suitable for zones 1, 2, 21 and 22, IP66 protection rating.

TECHNICAL SPECIFICATIONS:

Ex ATEX II2G Ex dc (ia) – IIB / IIC - T3

	U.	CLW-60	CLW-75	CLW-90	CLW-110	CLW-125	CLW-160
Nominal Cooling Capacity.	W.	3800	4900	5840	6870	8080	9970
Nominal Heating Capacity.	W.	500	500	1000	1000	1500	2000
Impulsion air flow.	m3/h.	600	750	1000	1200	1400	1650
Power consumption.	Kw.	2.49	3.71	4.95	5.85	5.95	7.35
Electrical intensity. (400V.)	Amp.	7.21	8.24	9.46	10.81	11.01	14.71
Recommended fuse.	Amp.	10	10	16	16	16	20
Voltage 50Hz. (Standard)	V.	380-420	380-420	380-420	380-420	380-420	380-420
Voltage 60Hz. (on request)	V.	440-480	440-480	440-480	440-480	440-480	440-480
Electrical panel protection	IP	IP-66	IP-66	IP-66	IP-66	IP-66	IP-66
Ecological refrigerant.	R	R-407-C	R-407-C	R-407-C	R-407-C	R-407-C	R-407-C
Internal temperature range	°C.	+20 / +35	+20 / +35	+20 / +35	+20 / +35	+20 / +35	+20 / +35
External temperature range	°C.	-20 / +45	-20 / +45	-20 / +45	-20 / +45	-20 / +45	-20 / +45
Sound level (at 1m)	dB(A)	68	68	70	70	70	70



LEGEND:

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|----------------------------|-------------------------------|--------------------------------------|
| 1. Impulsión air. | 5. Condensation air outlet. | 9. Fan turbine access. |
| 2. Return air. | 6. Drain water outlet. | 10. Air filter access. |
| 3. Air filter. | 7. Control panel. | 11. Refrigeration compressor access. |
| 4. Condensation air inlet. | 8. Equipotential earth point. | |

	W (mm)	D (mm)	H (mm)	A (mm)	B (mm)	C (mm)	Weight (Kg.)
CLW-60	800	800	2.000	400	400	400	420
CLW-75	800	800	2.000	400	400	400	430
CLW-90	900	800	2.000	400	400	400	450
CLW-110	1.000	800	2.000	400	400	400	570
CLW-125	1.100	900	2.000	400	400	400	590
CLW-160	1.100	900	2.000	400	400	400	620

Climasa Refrigeración, S.L., reserves the right to make changes without prior notice.