

Customer	Impexron
Offer Number	1
Date	08.07.2026

DESCRIPTION

WLA05B1A020A080

DESCRIPTION OF THE UNIT

General Description: the WLAcompact is a chiller equipped with hermetic scroll/rotary/piston compressors and with high efficiency stainless steel plate type heat exchangers. Thanks to the wide water inlet and outlet limits and to the numerous configurations and available options, the WLAcompact is on the top of his range, allowing large and versatile applications and high level of reliability. The WLAcompact is therefore the perfect solution for all those industrial applications that require high performances, a continuous operation and a reduction of the managing costs.

Structure and casing: the structure is made of a base and of structural panels in galvanized carbon steel and painted with polyester powder in RAL 7035 light grey. All the panels are dismountable ensuring a better access to internal components and simplifying maintenance.

Compressors: mod. WLA10-13 are equipped with high efficiency scroll compressors with 2-pole motors complete with the protection against overheating and overcurrent and are mounted on rubber anti-vibration dampers. Mod. 02-03 feature a reciprocating compressor. Mod. 05-08 feature an high efficiency rotary compressor.

Refrigerant fluid: R134a

Evaporator: high efficiency stainless steel plate type heat exchanger thermally insulated with 10mm of UV and atmospheric agent resistant thermal insulator. The evaporator is protected from the risk of freezing as standard by a flow switch and an anti-freeze probe.

Condenser: Heat exchanger with finned core condensing coils, featuring copper tubes and corrugated aluminium fins. Metal filters suitable to protect the heat exchanger are available as standard and they' re easily removable to facilitate cleaning operation procedures.

Fans: all the models are equipped with suction fans axial type with sickle-shaped blades in steel, coated in black+ safety guard. The motors of all the fans are equipped with an incorporated thermal protection.

Refrigeration circuit: the refrigeration circuit features

- Refrigerant filter-dryer with hygroscopic molecular sieves
- Refrigerant liquid flow sight glass and moisture control
- Thermostatic expansion valve with external equalization
- High pressure switch

Hydraulic circuit

The hydraulic circuit is no ferrous type and it is atmospheric. It features:

- **Pump:** peripheral pump non-ferrous with body in RYTON/BRASS, front cover and impeller brass, mechanical seal (silicon carbide /graphite / FPM).
- **Storage tank:** storage tank in polyethylene with external thermal insulation. Thanks to its high thermal inertia, it allows to reduce the changes of the process fluid outlet temperature caused by the sudden variations of the thermal load and to minimize the mechanical stress of the compressors thanks to the reduction of the ON/OFF cycles of the compressors. Every storage tank is equipped with a drain and a bleed plugs to vent air during the process of filling the hydraulic circuit.
- **Automatic hydraulic adjustable by-pass:** hydraulic bypass between the supply and return of the process fluid featuring an adjustable overpressure valve. In case of a wrong interception of the inlet and outlet fittings the bypass allows to preserve the integrity of the unit and of the pump as it lets the passage of a minimum flow rate necessary to the intervention of the antifreeze alarm and to protect the pump.
- **Water pressure gauge:** positioned on the rear panel of the machine it measures the pump delivery pressure (0-6barg).
- **Level sensor (option):** this level switch stops the operation of the unit when the level of the process fluid in the accumulation tank is insufficient.
- **Electric pre-heater (option):** the preheater increases the fluid temperature and it is installed directly in contact with the fluid.

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Electrical Board

The electrical cabinet is designed and wired in compliance with EN 60204-1, with Low Voltage Directive 2006/95/CE and with Electromagnetic Compatibility Directive EN61000-6-2. The electrical board is made of top quality components and it is suitable for the indoor installation (the protection rating of the electrical board is IP40).

The power section includes:

- The main disconnect switch (red/yellow) with safety door lock;
- The isolation transformer feeding the control circuits and microprocessor circuit boards;
- Fuses to protect the compressors, fans and pumps;
- Contactors for the control of the compressors, fans and the pumps;
- Potential free contact of ON/OFF remote;
- Potential free contact of general alarm;
- Labelled wires;
- Phase sequence relay standard for 3-phase units

Standard power supply

- WLA02-03: 230V/1ph/50-60Hz
- WLA05-08: 230V/1ph/50-60Hz or 400V/3ph/50Hz 460V/3ph/60Hz (dual frequency)
- WLA10-13: 230V/1ph/50Hz or 400V/3ph/50Hz 460V/3ph/60Hz (dual frequency)

Electronic Control

The WLA chillers are controlled and managed by the electronic controller with presentation of parameters on a LED display and icon-based identification of functions XW07K + keypad CX40. The microprocessor allows to display the main operating parameters of the system and to optimize the performances. The electronic controllers manage the following functions:

- Proportional regulation of the water outlet temperature;
- Antifreeze heater control (water side);
- Count of operating hours of the chiller and compressors;
- Management of alarm messages;
- Alarms history display;
- TTL serial interfaces;

Testing: Before shipment, all the chillers are tested. In particular, the main checks performed are the following: correct installation of all components, absence of refrigerant leaks and electrical safety tests.

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TECHNICAL DATA

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Model		WLA compact - 05
General		
Cooling capacity (1)	kW	2,91
EER (1)		3,42
Total absorbed Electrical power (1)	kW	0,85
Ambient temperature working limits	°C	min 15 max 45
Application		indoor
Altitude above sea level	m	0
Outlet water temperature working limits	°C	min 13 max 30
low temperature option	°C	min -5 max 1
Refrigerant		R134a
Refrigerant charge	kg	0,67
Main power supply	V/Ph/Hz	230V/1/60Hz
Secondaries voltage	Vac	230
Max absorbed electrical power (FLI) (4)	kW	2,4
Max absorbed current (FLA) (4)	A	12,92
Maximum inrush current (MIC)	A	28,8
COMPRESSORS		
Compressor type	alternativo	1
Number of refrigerant circuits		1
Absorbed Electrical power	kW	0,68
Max absorbed electrical power (FLI)	kW	0,96
Max absorbed current (FLA)	A	4,5
FANS		
Fan		1 x ø250
Fans type		AC
Air temperature	°C	32
Fan air flow	m³/h	1.486
Absorbed power at working point	kW	0,164
Max absorbed electrical power (FLI)	kW	0,164
Max absorbed current (FLA)	A	0,8

The above mentioned data are subject to the measuring tolerances of Eurovent. Unless otherwise stated, all data refer to a product in basic version

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HYDRAULIC		
Chilled fluid		Water
Fluid freezing temperature	°C	0
Max working pressure		PN 10
Chilled fluid inlet temp.	°C	20
Chilled fluid outlet temp.	°C	15
Fluid flow rate	m³/h	0,5
Pressure drop	kPa	13,5
Head pressure available	kPa	361,3
Min chilled fluid flow rate	m³/h	0,3
Max chilled fluid flow rate	m³/h	0,8
Tank Volume	l	20
Width x Height x Depth	mm	632 x 801 x 527
Weight empty (4)	kg	58
Hydraulic connections	" M Vic	UNI ISO228 2 x 1/2"gas
Sound pressure level (6)	dB(A)	61,9
Sound power level (7)	dB(A)	75,6

(1) Nominal performance GROSS: the data do not consider the pump share, required to overcome the pressure drop for the solution circulation inside the exchangers.

(2) Value refers to the standard unit without options.

(3) Data declared according to UNI EN 14511:2018

(4) Data referred to standard units without pumps and tank; according to the installed accessories, the data can suffer some variations. For the definitive data please refer to the wiring diagram of the unit (supplied with the instruction manual of the unit).

(6) Sound pressure level of a basic unit without options at full load and referred to the following conditions: evaporator fluid: 100% water, IN/OUT temp. = 20/15 °C, ambient temp. = 32°C. Average value in free field condition @ 1m distance on flat reflecting surface. Non-binding value obtained from sound power level according to EN ISO 3744.

(7) Sound power level measured according to EN ISO 9614. Data of basic unit without options, full load and referred to the following conditions: evaporator fluid: 100% water, IN/OUT temp. = +12/+7 °C, ambient temp. = +35°C.

Technical data may vary without notice.

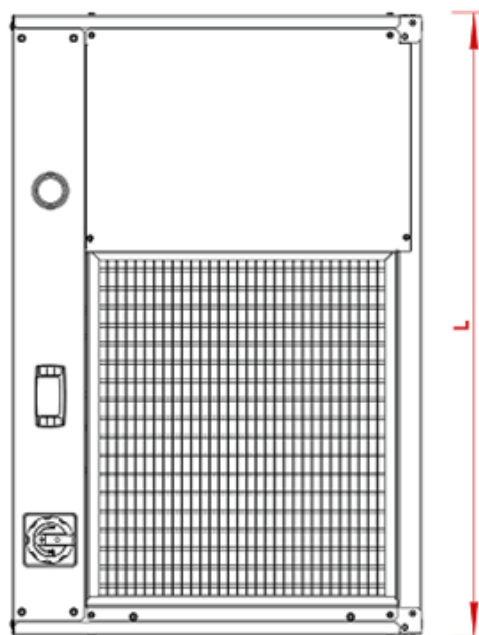
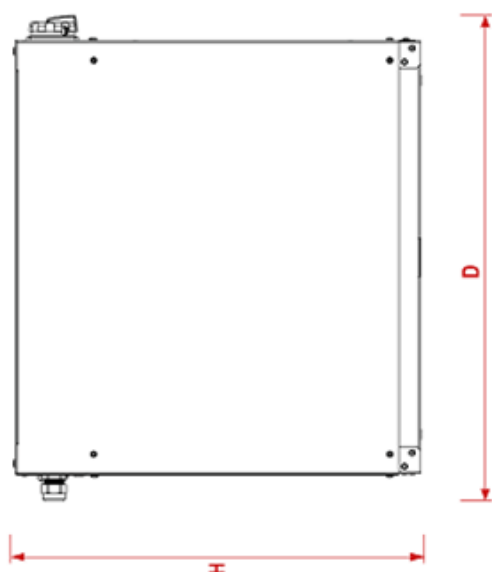
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LAYOUT

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H [mm]	L [mm]	P [mm]
801	632	527

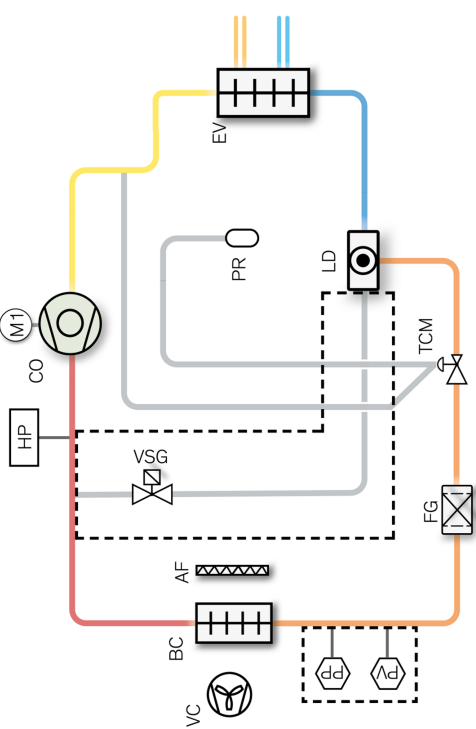


REFRIGERANT CIRCUIT

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Nomencl.	Symbol	Meaning
BC		Condenser
CO		Compressor
EV		Evaporator
FG		Refrigerant filter
FZAL		Electronic flow switch
TCM		High pressure switch
HP		Vent valve
VSG		Fan
VC		Air Filter
AF		Partialization pressure switch
PP		Fan partialization
PV		Gas filter
FG		Gas injector
LD		Probe
PR		Water inlet
IN		Water outlet
OUT		Non return valve
VNR		Fill-in cap
RI		Manometer
MN		Pump
PW		Safety valve
VSC		Tank
VA		Level viewer
LV		Max thermostat
TS		Electrical heater
RE-I		Electrical heater
EL		Refrigerant line
SV		Water line
		Optional

CIRCUITO FRIGO - REFRIGERATION CIRCUIT - KÄLTEKREISLAUFSCHEMA - CIRCUIT FRIGORIFIQUE - CIRCUITO REFRIGERANTE



CIRCUITO IDRAULICO - WATER CIRCUIT - WASSERKREISLAUF - CIRCUIT HYDRAULIQUE - CIRCUITO IDRAULICO

