Liquid Chiller LA COMPACT



The performance of modern industrial processes is closely influenced by variations in their operating temperature and can be compromised by dangerous overheating phenomena.

The new WLAcompact have been designed to provide accurate temperature control of the process fluid and reliable operation in a wide variety of industrial applications such as: machine tools, lasers, presses, extruders, and for chemical-pharmaceutical, food and medical sectors.

ELECTRICAL PANEL manufactured according to EN60204-1, includes: the main disconnect switch, numbered electrical cables and standard phase monitor. Standard bifrequency 50/60HZ power supply

> XW07K MICROPROCESSOR CONTROL

ROBUST AND SELF-SUPPORTING STRUCTURE with galvanized steel panelling and RAL705 powder coated. All panels are easily removable and allow easy access to internal components for maintenance operations



ATMOSPHERIC HYDRAULIC CIRCUIT made of non-ferrous material and equipped with automatic bypass valve. The HDPE storage tank is thermally insulated and fitted with level indicator and front loading and drainage connections. Peripheral pump P3/ P5 (optional)

REFRIGERATION CIRCUIT made according to directive 2014/68/EU composed of a rotary or scroll compressor; high efficiency plate evaporator; finned coil condenser; thermostatic valve. Refrigerant fluid R134a.

Technical Features

Refrigeration Circuit

- Piston compressor (mod. 02-03), rotary compressor (mod. 05-08) or scroll compressor (mod. 10-13)
- New plate heat exchangers optimized for operation at high evaporation temperatures.
- New finned coil condensers protected by a metal anti-particulate filter and with reduced tube diameter: they reduce the refrigerant charge content by about 20%.
- HP high pressure switch with manual reset.
- Thermostatic lamination valve

Hydraulic Circuit

- Hydraulic circuit at atmospheric pressure built with non-ferrous materials
- NEW HDPE inertial tank with increased volume with: visual level indicator, connections for loading/drainage and overflow.
- Automatic bypass valve in bronze as standard
- Flow switch Standard
- Pressure gauge 0-6 barg

Kit

- Water filter: cartrige 100µm
- Pivoting wheels
- Lifting eyebolts
- Vibration dampers
- RS485 ModBus connection

XW07K Microprocessor Control

XW07K manages and optimizes the operation of refrigeration and hydronic circuits. It regulates the ON/ OFF of the compressor according to the required water temperature, respecting the minimum operating times for the compressor.

- Main features:
- Tw out and T ambient measurement and display
- Antifreeze function for evaporator protection
- Alarm management: HP;
- General alarm free contact
- Remote digital input ON/OFF
- Fine temperature control function (hysteresis ± 1K)
- Dynamic set point function

Versions & Options

- Version without tank and without pump
- Version without tank
- Version for low T water outlet -5°C
- Version for low T environment -5°C or -10°C
- LASER version with hot gas injection valve (hysteresis
- Pump options: P3 standard; P5 high head
- Level switch option
- Under-user installation option: non-return valve + solenoid valve
- Multi-pole connector option
- Preheating heater option
- T amb probe option for dynamic set point







Technical Data

	WLA02	WLA03	WLA05	WLA08	WLA10	WLA13
PERFORMANCE (1)						
Cooling Capacity @50Hz (1) [kW]	1,41	1,61	2,50	3,24	4,12	5,05
Cooling Capacity @60Hz [kW]	1,58	1,80	2,80	3,63	4,61	5,66
Total Power Consumption @50Hz(1) [kW]	0,60	0,71	0,74	0,93	1,34	1,67
EER (pump excluded) @50Hz (1)	2,4	2,3	3,4	3,5	3,1	3,0
Water Flow Rate Evaporator @50Hz(1) [l/min]	4,0	4,6	7,2	9.3	11,8	14,5
Evaporator Pressure Drops @50Hz [kPa]	12,0	15.3	10,5	16,4	25,0	36,3
Water Flow Rate Evaporator @60Hz [l/min]	4,5	5,2	8,0	10,4	13,2	16,2
Evaporator Pressure Drops @60Hz [kPa]	15,1	19,2	13,1	20,5	31,4	45,5
ELECTRICAL DATA						
Power Supply [V/ph/Hz]	230-1-50/60	230-1-50/60	230-1-50/60	230-1-50/60	230-1-50	230-1-50
			400-3-50	400-3-50	400-3-50	400-3-50
			460-3-60	460-3-60	460-3-60	460-3-60
Auxiliary Power Supply [V/ph/Hz]	230-1-50/60					
IP Protection Degree (electrical panel)	40	40	40	40	40	40
TECHNICAL DATA						
N° compressors/circuits	1/1	1/1	1/1	1/1	1/1	1/1
N° Axial Fans	1	1	1	1	1	1
Air Flow Rate @50Hz [m³/h]	1820	1820	1820	1820	3415	3415
Fan Power Consumption @50Hz [kW]	0,13	0,13	0,13	0,13	0,30	0,30
Available Head P3 Pump 50Hz [barg]	2,4	2,3	3,9	3,7	3,4	3,2
Rated Power from P3 Pump [kW]	0,37	0,37	0,55	0,55	0,55	0,55
Sound Pressure Level [dB(A)] (2)	64,1	64,1	61,9	61,9	71,8	71,8
Hydraulic Connections Diameter [Rp]	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Tank Volume [dm³]	8	8	20	20	20	20
Width [mm]	601	601	801	801	801	801
Depth [mm]	517	517	632	632	632	632
Height [mm]	477	477	527	527	527	527
Weight empty [kg] (3)	54.3	54.3	75,4	75,4	75,4	75,4

- (1) Operating limits for standard chiller: outlet water temperature: +13°/+30°C; ambient air temperature min/max +15°/+45°C
- (2) Sound pressure at 1m: average value obtained in a free field on a reflecting plane at a distance of 10m from the unit according to EN ISO 9614-2. Values with tolerance ± 2 dB..
- (3) Empty weight of the unit with tank and P3 pump without options/kit. Tolerance +/- 10%







Mod. 05-13