

# WLA Compact Liquid Chiller

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 WLA Compact 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.

XWO7K Microprocessor Control

Robust and self-supporting structure with galvanised 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 materials and equipped with automatic bypass valve. The HDPE storage tank is thermally insulted 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 optimised for operation at high evaporation temperatures.
- New finned coil condensers protected by a metal antiparticulate 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 inertia 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 filters: Y-shaped
- Pivoting wheels
- Lifting eyebolts
- Vibration dampers
- RS485 ModBus connection

#### XW07K Microprocessor Control

XW07K manages and optimises 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 +/-1K)
- Under-user installation option: non-return valve + solenoid valve
- Pump options: P3 standard; P5 high head
- T amb probe option for dynamic set point
- Multi-pole connector option
- Preheating heater option
- Level switch option

## **GET IN TOUCH TODAY**

We have 30+ years experience controlling temperature for the world's most demanding industries.

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WLA Compact Liquid Chiller

Performance (1)	WLA02	WLA03	WLA05	WLA08	WLA10	WLA
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 [I/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 [dbA] (2)	64,1	64,1	61,9	61,9	61,9	61,9
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) Data referring to outlet water inlet temperature 20/15°C - Air temperature 32°C. @50Hz

PROCESS COOLING

(2) Sound pressure at 1m: average value obtained in a free field on a reflecting plane at a distance of 1m from the unit. Values with tolerance ± 2 dB.
(3) Empty weight of the unit with tank and P3 pump without options/kit. Tolerance +/- 10%



Mod. 05 - 13



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