

# WLAcompact **NEW**

1,4 ÷ 5 kW



## WLA compact **NEW** Technical overview



Modelli	Versioni	Max temperatura ambiente	SEPR HT/MT
<b>6</b>	<b>4</b>	<b>+45°C</b>	

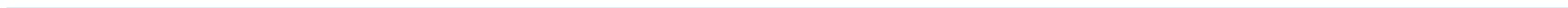
- **Range:** 6 models/ 2 frames
- **Cooling capacity:** 1,4 ÷ 5,0kW
- **Refrigerant:** R134a
- **Power supply**
  - ✓ Dual frequency 230V/1ph/50Hz – 60Hz (1,4 ÷ 1,8 kW)
  - ✓ Dual frequency 400V/3ph/50Hz – 460/3/60 (2,5 ÷ 5,0 kW)
- **SEPR<sub>2021</sub> HT/MT EXEMPTED**
- **Compressors:** scroll/rotary
- **Circuit / compressor:** 1/1
- **Evaporator:** plate type
- **Condenser:** mini-tubes 7mm
- **Hydraulic circuit:** atmospheric non-ferrous standard
- **Pumps:** P3; P5
- **Operating limits:**
  - ✓ Tw out<sub>min/max</sub> = +13°/+30°C
  - ✓ Tamb<sub>min/max</sub> = +15°/+45°C
- **Electrical panle:** IP2X for INDOOR intallations
- **Controller:** Dixell XW07K + keypad CX40
- **Phase monitor** standard
- **Bypass hydraulic valve & flow switch:** standard

## WLA compact **NEW** versions

- **Standard Dual frequency 50/60Hz**
  - ✓ Dual frequency 230V/1ph/50Hz – 60Hz (1,4 ÷ 1,8 kW)
  - ✓ Dual frequency 400V/3ph/50Hz – 460/3/60 (2,5 ÷ 5,0 kW)
- **Low ambient temperature -5 / -10°C**
- **Version Brine Tw out min -5°C**
- **Laser version: isteresi ± 1K**

Versions

4



## WLA compact **NEW** Technical overview

Dixell XW07K + keypad CX40

Eye bolts standard (option)

Main switch

Thermostatic valve

Heavy duty structure: galvanized carbon steel + powder coating

Hydraulic bypass valve and flow switch standard

HIGH EFFICIENCY EVAPORATOR  
PLATE TYPE

Condensing coils with aluminum fins and copper tubes + Air filter standard

Rotary compressor

Hydraulic tank in HDPE

P3/P5 peripheral pump and hydraulic circuit non ferrous

R134a



## WLA compact **NEW**

### Main benefits

- ❑ **EASY INSTALLATION:** thanks to their compact dimensions the WLAcompact chillers fit easily even below of a workbench. The robust structure with eyebolts allows lifting the unit by means of straps with hook. Thanks to the dual frequency design all the units are ready for 50Hz and 60Hz markets.
  - ❑ **MAXIMUM RELIABILITY:** Thanks to the non ferrous hydraulic circuit the the WLAcompact chillers can work even with fluids aggressive to carbon steel, maintaining maximum quality and cleanliness of the process fluid.
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## WLA compact **NEW**

### Main benefits

□ **EASY MAINTENANCE:**

- ✓ rational layout of the hydraulic components
- ✓ simple refrigerant circuit
- ✓ numbered electric cables
- ✓ Simple fastening system of the condenser air filters
- ✓ Hydraulic circuit features a pressure gauge on the discharge side of the pump and the hydraulic tank level indicator

- **WIDE RANGE OF OPTIONS AND KIT:** let the WLAcompact to satisfy any specific need (PLASTIC, LASER, MACHINE TOOLS, FOOD, BEVERAGE)
-

# WLAcompact NEW

## Performance

WLA COMPACT OLD Version 2019		WLA COMPACT NEW Version 2020	
Mod.	[kW]	Mod.	[kW]
WLA12	1,2	WLA02	1,45
WLA15	1,5	WLA03	1,65
WLA23	2,3	WLA05	2,55
WLA30	2,8	WLA08	3,15
WLA34	3,4	WLA10	4,15
WLA44	4,4	WLA13	5,05

# WLAcompact **NEW**

## Power supply

WLA attuale				WLA NEW			
Mod	[kW]	Monofase	Trifase	Mod.	[kW]	Monofase	Trifase
WLA12	1,20	230/1/50-60	//	WLA02	1,45	230/1/50-60	//
WLA15	1,50	230/1/50-60	//	WLA03	1,65	230/1/50-60	//
WLA22	2,20	230/1/50-60	//				
WLA23	2,30	//	400/3/50 - 460/3/60	WLA05	2,55	230/1/50-60	400/3/50 - 460/3/60
WLA30	2,80	230/1/50-60	400/3/50 - 460/3/60	WLA08	3,15	230/1/50-60	400/3/50 - 460/3/60
WLA34	3,40	230/1/50	400/3/50 - 460/3/60	WLA10	4,15	230/1/50	400/3/50 - 460/3/60
WLA44	4,40	230/1/50	400/3/50 - 460/3/60	WLA13	5,05	230/1/50	400/3/50 - 460/3/60

## WLAcompact **NEW** Dimensions and size



■ Size n°1  
483 x 600 x 500 mm

- WLA 02  
1400 W (W15L32)
- WLA 03  
1700 W (W15L32)



■ Size n°2  
530 x 800 x 615 mm

- WLA 05  
2500 W (W15L32)
- WLA 08  
3100 W (W15L32)
- WLA 10  
4100 W (W15L32)
- WLA 13  
5000 W (W15L32)

## WLAcompact NEW Refrigerant circuit

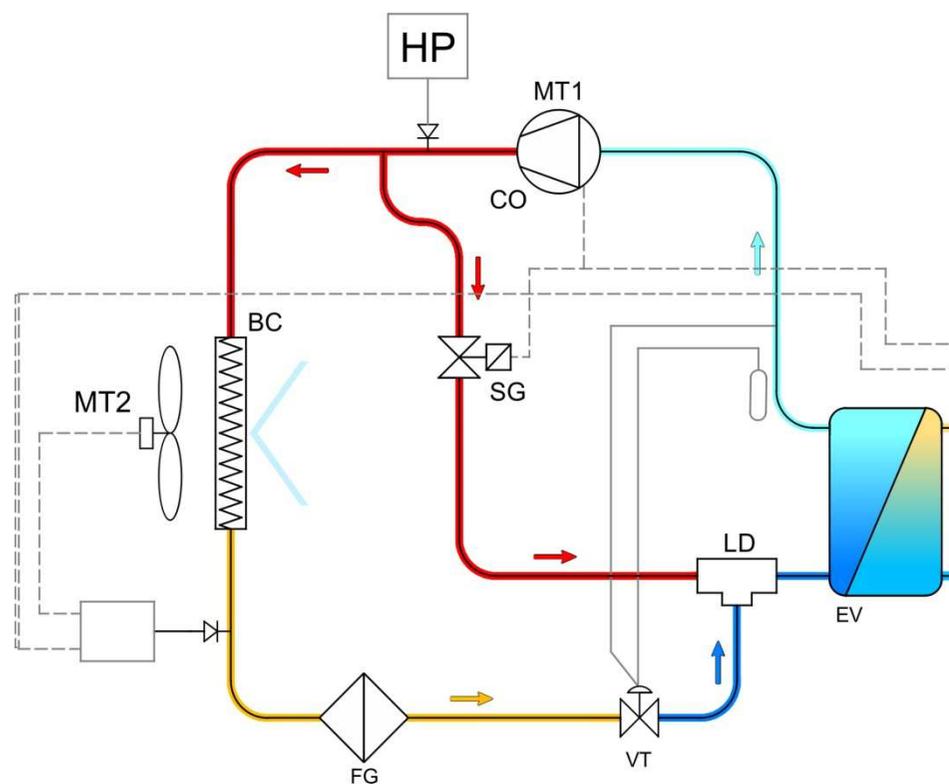
- **Standard Precision**

- ✓  $\pm 2^{\circ}\text{C}$

- **Laser precision**

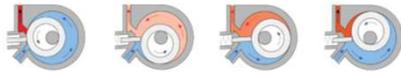
- ✓  $\pm 1^{\circ}\text{C}$

- ✓ Hot gas bypass managed by electronic controller



## WLAcompact **NEW** Refrigerant circuit

- **R134a**
  - ✓ No chlorine content
  - ✓ ODP = 0  
(Ozone Depletion Potential)
  - ✓ G.W.P. = 1300  
(Global Warming Potential)
- **Compressor)**
  - ✓ Rotary
- **Brazed plate evaporator**
- **Mechanical thermostatic valve**



## WLAcompact **NEW** Condenser

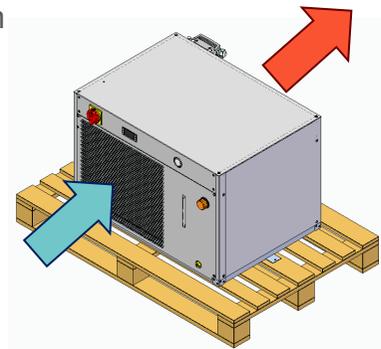


### ▪ **Condensing coil**

- ✓ Finned coils composed of smooth tubes or tubes with internal swirl fins to increase thermal exchange
- ✓ Copper headers, aluminium corrugated fins, shoulders and plenum in galvanized sheet steel

### ▪ **Fan**

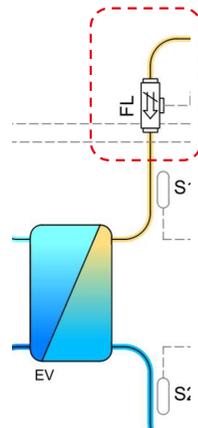
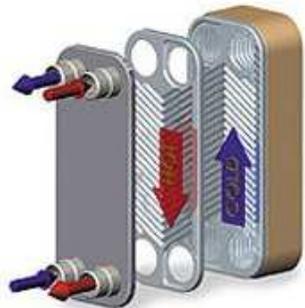
- ✓ Axial fan equipped with sickle-shaped Sheet steel, coated in black - thermal protection - safety guard
- ✓ IP44
- ✓ ON/OFF pressure switch
- ✓ ALCO FSY phase cut speed control (option)



## WLAcompact **NEW** Evaporator

- **Brazed plates heat exchanger**

- ✓ Single refrigerant circuits
- ✓ Single hydraulic circuit
- ✓ Stainless steel (AISI 316)
- ✓ Brazed in copper
- ✓ Flow switch
- ✓ Anti-freeze probe



## WLAcompact NEW Hydraulic circuit



Atmospheric pressure hydraulic circuit built with non-ferrous materials, it features an high efficiency plate type evaporator and tank in polyethylene a peripheral pump with 3 bar available head pressure.

The circuit is protected from the risk of freezing thanks to a temperature sensor and a flow switch by which the controller is able to switch off the compressor in case of fault.

- Only evaporator



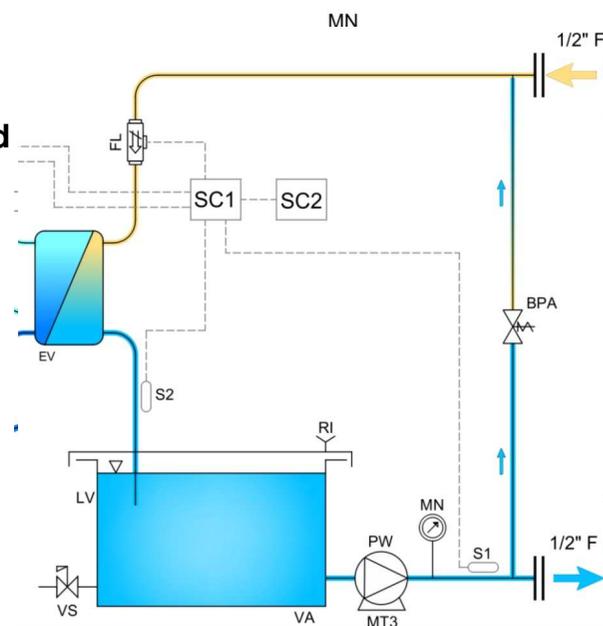
- Evaporator + Pump

- ✓ Standard: 2,5 – 3,5 bar
- ✓ Middle pressure: 4,0 – 5,5 bar



- Evaporator + Pump + Tank

- ✓ Standard or Middle pressure pump
- ✓ 8 liters tank: WLA02-03
- ✓ 20 liters tank: WLA05-13
- ✓ Automatic Bypass standard



## WLAcompact **NEW** Hydraulic circuit



### Storage tank

#### Water buffer tank in polyethylene

- Protected by a thermal insulating and anti-condensing layer
- All the tanks are equipped with:
  - ✓ Drain valve
  - ✓ Water filling connection
  - ✓ Overflow connection
  - ✓ Visual level indicator
  - ✓ Water pressure gauge 0 – 6 bar

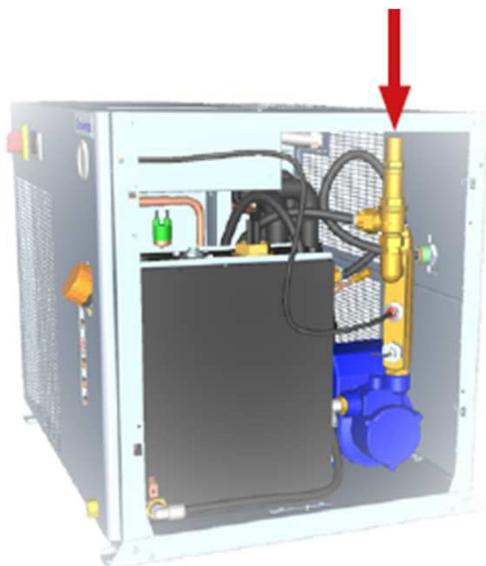
## WLAcompact **NEW** Hydraulic pump



**Peripheral pumps non ferrous with 3 bar available head pressure**

- Body in RYTON, front cover and impeller brass, mechanical seal (silicon carbide /graphite / FPM)

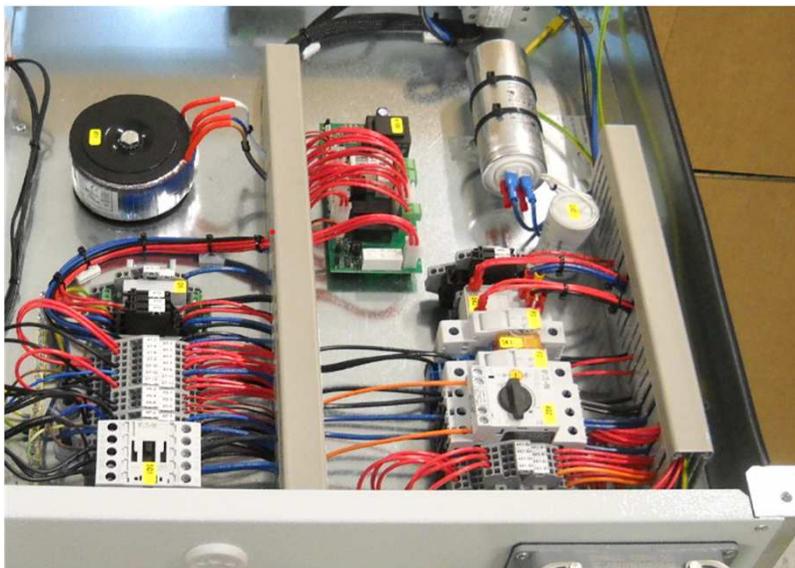
## WLAcompact **NEW** automatic by-pass



**The automatic by-pass (BPA) is an adjustable pressure relief valve in gunmetal with proportional operating characteristics.**

- It protects the hydraulic circuit as a pressure limiting device.
- The factory setting of the by-pass is for operation with pumps 50 Hz.

## WLAcompact **NEW** Electrical panel



**It includes a power section with protection fuses of the motors and a control section with labelled wiring cables**

- Built accordingly to:
  - 2006/95/CE low Tension directive
  - EN 60204-1
  - 2004/108/CE electromagnetic compatibilities directive
- Electrical panel protection rating IP 33 (indoor installation)
- Main switch
- High pressure switch with manual reset
- Phase sequence relay
- **Multipole industrial connector** (WESTEC/HARTING): pair of female-to-male industrial connectors in aluminium for quick connection of power supply, remote ON / OFF and general alarm (OPTION)

## WLAcompact **NEW** Control

**Dixell XW07K + keypad CX40 thermostatic control depending on the process fluid output temperature (neutral zone)**

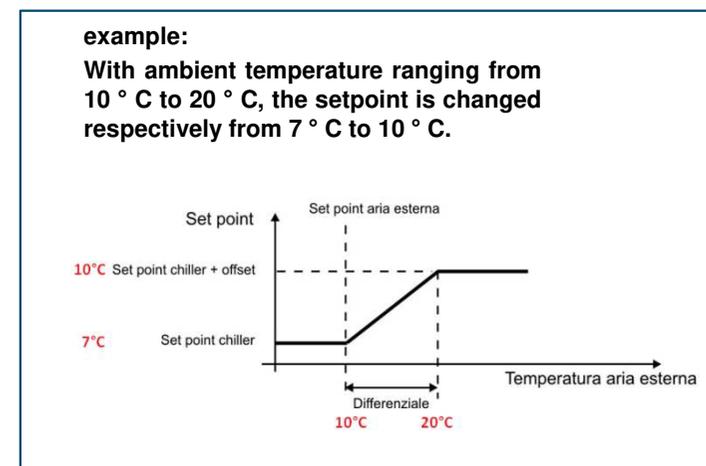
- ❑ Frost protection function for the evaporator
- ❑ High condensing pressure alarm HP
- ❑ Alarm high / low water temperature
- ❑ Temperature probes failure alarm
- ❑ General alarm free contact
- ❑ Remote ON / OFF digital input
- ❑ Special functions:
  - ✓ Close control function ( $\pm 1K$  outlet water temperature)
  - ✓ Dynamic set point function



## WLAcompact **NEW** Control - Dynamic set point function

The controller adjusts the working setpoint following the temperature measured by a temperature sensor fixed on the lateral panel of the unit.

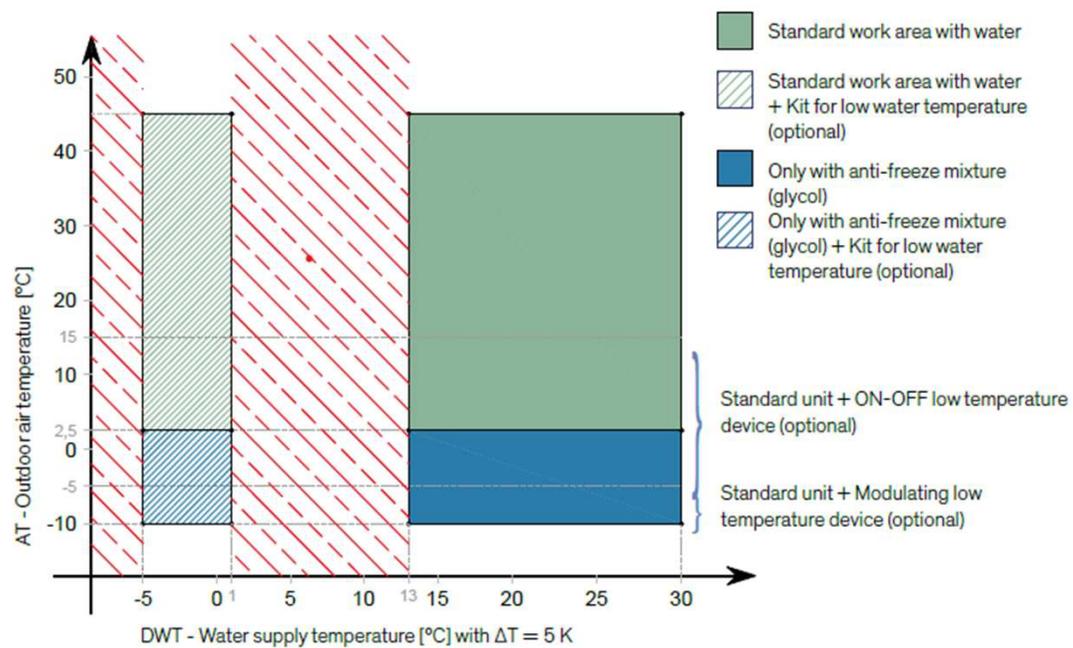
- ✓ Suitable for spindle cooling
- ✓ Avoids the moisture condensation very dangerous for applications as electric autotransformers cooling



Ambient sensor available as a kit

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## WLAcompact **NEW** Operating limits



# Options & KIT

# WLAcompact **NEW**

## Options - KIT

- ✗ not available
- ✓ standard
- option
- accessories

	WLA02	WLA03	WLA05	WLA08	WLA10	WLA13
Outdoor	✗	✗	✗	✗	✗	✗
Low ambient temperature -5°C	○	○	○	○	○	○
Low ambient temperature -10°C	○	○	○	○	○	○
Low water temperture -5°C	○	○	○	○	○	○
Ambient following	○	○	○	○	○	○
Precision +/- 1°C *	○	○	○	○	○	○
Non ferrous hydraulic circuit	✓	✓	✓	✓	✓	✓
Fix bypass	✗	✗	✗	✗	✗	✗
Automatic bypass	✓	✓	✓	✓	✓	✓
Sealed tank (not pressurized)	○	○	○	○	○	○
Electrical Level	○	○	○	○	○	○

	WLA02	WLA03	WLA05	WLA08	WLA10	WLA13
Preheater	○	○	○	○	○	○
P3 pump	○	○	○	○	○	○
P5 pump	○	○	○	○	○	○
Under user	○	○	○	○	○	○
Flow swith	□	□	□	□	□	□
Water filter	□	□	□	□	□	□
Polyuretane air filter	○	○	○	○	○	○
Aluminum air filter	✓	✓	✓	✓	✓	✓
Lifting kit (eyebolts)	□	□	□	□	□	□
Wheels	□	□	□	□	□	□
Multipolar connector	○	○	○	○	○	○
ModBus	✓	✓	✓	✓	✓	✓
Phase sequence relay	✗	✗	✓	✓	✓	✓

**\* with variable load**

## WLAcompact NEW

### In conclusion

#### ❑ **Easy installation**

- ✓ Compact dimensions
- ✓ Robust structure with eyebolts allows lifting the unit
- ✓ Dual frequency power supply 50/60Hz

#### ❑ **Maximum reliability**

- ✓ Primary branded components
- ✓ Hydraulic circuit NON FERROUS

#### ❑ **Easy maintenance**

- ✓ Easy access to main components
- ✓ Condenser air filter std with practical fixing system
- ✓ Labelled electric cables

#### ❑ **Wide range of options & kit**

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