

## OPTIONS:

Leaving water temperature stability (+/- 0,1 K) electronic hot gas by-pass valve (only for CWE036÷140)	VBE
Single P2/P3/P5 Pump	P2/P3/P5
Double P2/P3/P5 Pump	D2/D3/D5
Non ferrous water piping for single pump configuration	WP [1]
Non ferrous water piping for double pump configuration	WD [2]
Pressurized water tank	TP [3]
Non ferrous pressurized water circuit (stainless steel water tank)	TPI [3]
Pressurized water tank with double pump housing	TP2 [4]
Non ferrous pressurized water circuit for double pump housing (stainless steel water tank)	TP12 [4]
Additional atmospheric water tank kit (glycol charge)	TA [5]
Non ferrous atmospheric water circuit (plastic water tank)	TANF
Disconnect tank with P2/ P3/ P5 Pump (pressurized carbon steel tank included)	X2/ X3/ X5
Water level switch	LSM [6]
Automatic water bypass valve	BA
Evaporator anti freeze heater	RA1
Evaporator and pump anti-freeze heaters	RA2
Evaporator, pump and tank anti-freeze heaters	RA3 [9]
Electrical switchboard anti-condensation heater	RS
Solenoid valve on liquid line (only for CWE013÷053; standard for CWE068÷140)	VL
Electronic thermostatic valve	VE
Continuous fan(s) speed control - phase cut type (minimum ambient temperature -8.0°C)	CA
Continuous fan(s) speed control - electronic fan(s) (minimum ambient temperature -10.0°C)	CE
Low ambient temperature kit (minimum ambient temperature -20°C)	CL [7]
Partial heat recovery (desuperheater)	HRP [10]
Full heat recovery	HRF [11]
Ductable axial electronic fan(s)	ZAP
Compressor(s) shut off valves	VSC
Single pump shut off valves (valid for both standard and non-ferrous versions)	VSP1
Double pump shut off valves (valid for both standard and non-ferrous versions)	VSP2
Water filter shut off valves (valid for both standard and non-ferrous versions)	VSF
Copper tubes&fins condenser	OCC
Condenser anti-corrosion treatment	OCT [8]
Double setpoint (from MODBUS and/or keyboard)	WE
Water heaters	RH [9]
Compressor (s) acoustic shield (s) (only for CWE026÷140)	AI1
Automatic water filling kit for units with atmospheric water tank	WFA
Brine kit: thermal insulation of hydraulic pipes fittings and pumps for low temperature units	BK
Wind baffles kit	FWB
Threaded water connections (GAS) (only for CWE075÷140; standard for CWE013÷068)	WC2
Stainless steel threaded water connections (GAS) (only for CWE075÷140)	WC2I
Automatic water filling kit	WF
Rubber anti-vibration mountings for no tank units	FA1
Rubber anti-vibration mountings for units with tank	FA2
Remote Panel	ER
Sequencer for modular units	EVG
RS485 Isolator	ISL
Water check valve and interlocked solenoid valve (only for CWE036÷140)	VCI [6]
Wheels kit	FW
Wooden base	PWB
Wooden crate	PWC

- [1] WP option provides EPDM piping and stainless steel water connections. Available only with any no tank configuration.
- [2] WD option provides EPDM piping and stainless steel water connections. Available only with no tank and only with double pump (D2, D3, D5) configurations only.
- [3] To be combined with P2, P3, P5 only.
- [4] To be combined with D2, D3, D5 only.
- [5] To be combined with TP, TPI, TP2, TP12 only.
- [6] To be combined with TANF only.
- [7] Includes electronic fans, electrical switchboard anti-condensation heater and liquid receiver.
- [8] Cataphoresis (black) or pre-painted aluminium fins (blue) or hydrophilic fins (blue) or spray pre-painted fins (grey).
- [9] To be combined with pressurized water tank (TP/TP2/TPI/TP12) only. Contact our company.
- [10] Heating power recovered equal to approximately 20% of the cooling power produced.
- [11] Heating power recovered equal to approximately 100% of the cooling power produced.



The controller's configuration is very easy by using a usb cable connected to client's laptop. This way any firmware update and mapping could be uploaded. No converter is required.

## MICROPROCESSOR CONTROLLER

It allows to check at any time the operation parameters: condensing pressure, evaporating pressure, inlet and outlet water temperature and all digital inputs and outputs.

In case of partial or total block of the unit, the alarm history shows which security has intervened.

The controller is standard equipped with RS485 port for modbus connections. As option the set up for Lane / Ethernet connection is available, by means of which it is possible to connect the unit to an internet gateway for remote supervision.

## MAIN FUNCTIONS

- Pump on-off (optional)
- Fans operation
- Monitoring of the compressor switching cycles according to the outlet water temperature required
- Regulate pumps operating times (for models with optional double pump)
- Measure and display evaporator inlet and outlet water temperature
- Measure and display condensing and evaporating temperature pressure
- Antifreeze
- On-off remote control
- Alarm history

## ALARM MANAGEMENT

- Low/high refrigerant pressure transducer
- Water differential pressure switch
- Incorrect phase sequence
- Compressors thermal protection
- Temperature failure probe
- Pressure failure probe
- High water temperature
- Antifreeze
- High and low refrigerant pressure switch
- General alarm available via clean contact in terminal block

## HOT GAS BYPASS VALVE FOR PRECISE CONTROL OF WATER OUTLET TEMPERATURE

The CWE036÷140 range could be equipped as optional with a precise adjustment system for the outlet water temperature through a hot gas bypass valve.

This configuration provides a very precise control of thermal loads that are less than the minimum capacity of the compressor itself.

This system minimizes the fluctuations of the outlet water temperature with a high precision degree in the range of  $\pm 0.1$  K at standard working conditions.



Friulair markets its units in many configurations further than the ones listed in this document. Please contact our sales offices for more information: [sales.chiller@friulair.com](mailto:sales.chiller@friulair.com)

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**CWE**

AIR-COOLED SCROLL COMPRESSOR CHILLERS

from 13 to 140 kW

ERP  
SEPR HT  
READY 2021

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