OPTIONS

	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
	Electronic thermostatic valve		VE
	Compressor(s) shut-off valves on suction and discharge side		VSC
	Evaporator anti-freeze heater		RA1
	Evaporator and pump anti-freeze heaters		RA2
	Evaporator, pump and tank anti-freeze heaters	[1]	RA3
	Condenser anticorrosion treatment (cataphoresis type)	[2]	OCT
	Compressor(s) acoustic shield(s)		AI1
	Single P3 Pump		P3
	Non ferrous atmospheric water circuit (plastic water tank)		TANF
	Cold water tank configuration		TPC
	No tank configuration		T0
	No pump configuration		P0
	Additional atmospheric water tank kit (glycol charge)		TA
	Double atmospheric water tank kit (glycol charge)		2TA
	Disconnector tank configuration with P2 pump (pressurized carbon steel tank included)		X2
	Disconnector tank configuration with P3 pump (pressurized carbon steel tank included)		Х3
	Disconnector tank configuration with P2 pump (non ferrous atmospheric water tank included)		X2 TAN
7	Disconnector tank configuration with P3 pump (non ferrous atmospheric water tank included)		X3 TAN
	Mechanical water level switch	[3]	LSM
	Pump shut-off valves		VSP
	Water strainer shut-off valves		VSF
	P2 configuration for glycol up to 50%	[4]	SP2G
	P3 configuration for glycol up to 50%	[4]	SP3G
	Partial heat recovery (desuperheater)	[6]	HRP
7	Full heat recovery	[7]	HRF
	Electrical switchboard anti-condensation heater		RS
	Remote Panel Kit		ER
	Threaded water connections kit (GAS)	[5]	WC2
7	Stainless steel threaded water connections kit (GAS)	[2]	WC2I
	Rubber anti-vibration mountings kit (no tank units)		FA1
	Rubber anti-vibration mountings kit (units with tank)		FA2
The second	Wheels kit		FW
	Wooden base		PWB
	Wooden crate		PWC

- [1] Available only with pressurized tank
- [2] Option available for CEN 052÷096
- [3] To be combined with TANF only
- [4] Standard admissible propylene glycol mixture up to 40% with minimum outlet water temperature -10°C
 [5] Option available for CEN 052÷096 Standard for CEN010÷046
- [6] Heating power recovered equal to approximately 20% of the cooling power produced.
- [7] Heating power recovered equal to approximately 100% of the cooling power produced.



OTHER RANGES AVAILABLE IN OUR CATALOGUE







AIR-COOLED SCROLL COMPRESSOR CHILLERS

from 10 to 96 kW



for wineries and breweries







DESCRIPTION

The new CEN range is specifically designed to meet the application requirements of wineries by offering precise control of refrigerated water temperature while operating over long time periods with varying load demands. The range includes 14 models with cooling capacities from 10 to 96 kW.

It is designed for outdoor installation, with specific standard components especially indicated at low temperatures.

FRAME AND STRUCTURE

All frame and cabinet cover material is made of galvanized steel that is then powder coated, making the CEN suitable for outdoor installation and for protection in harsh environments. The compressor cabinet is separate from the fan's section and is accessible on three sides to make control and maintenance easy. The hydraulic section is also easily accessible.

ENSY MAINTENANCE

The CEN series has been designed and built to facilitate inspection and maintenance. The canopy is easily removable and allows immediate access to the components inside. The clear arrangement of the components, the simplicity of the refrigerant and hydraulic circuit and the identified cabled in the electrical system, assist the users normal operating schedule



REFRIGERATION CIRCUIT

It is manufactured from top quality materials and comply with the 2014/68/EU Directive. It includes dehydrator filter, liquid solenoid valve, liquid sight glass flow, thermostatic expansion valve sized to satisfy water setpoint 7°C / -8°C, high pressure safety switch with manual reset and low pressure transducer with semi-automatic reset, HP and LP refrigerant gauges, pressure plugs

TECHNICAL DETAILS

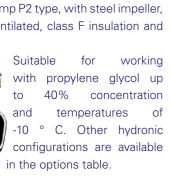
HYDRAULIC CIRCUIT

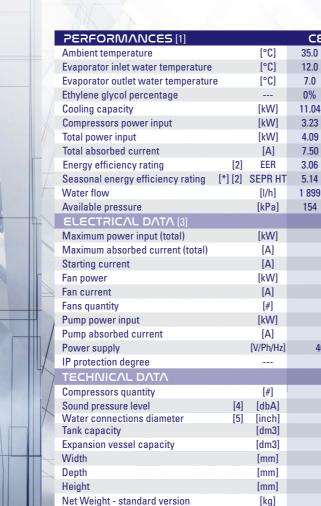
All units are equipped with circulation pump, ferrous pressure tank of the "hot" type, safety valve, expansion vessel, water pressure gauge, recharging valve.

Thermal insulation for hydraulic pipes, fittings and pumps particularly suitable for low

Centrifugal pump P2 type, with steel impeller, 2-pole, self-ventilated, class F insulation and

> Suitable for





CONDENSER

condensers.

[*] Data in accordance with European Regulation (EU) 2016/2281 for eco-design requirements

35.0

3.23

1 899

154

5.64

9.87

54.80

0.19

0.40

0.48

400/3/50

IP54

43.5

1.456

330

2 083

2 748

194

8.22

13 99

92.20

0.19

0.40

0.73

1.40

400/3/50

IP54

2 943

166

3 399

165

10.38

18 07

100.80

0.31

0.70

0.73

1.40

400/3/50

IP54

1.455

1.456

360

3 769

124

4 977

186

13.84

22 94

128.00

0.77

1.70

0.89

1.60

400/3/50

100

925

1.580

490

IP54

5 440

147

5 516

180

15.26

25.30

143.00

0.77

1.70

0.89

1.60

400/3/50

IP54

100

925

1 580

510

6 072

139

[kW]

[kPa]

[kW]

[kW]

[A]

[kW]

[V/Ph/Hz]

[dbA]

[dm3]

[mm]

Micro-channel aluminium condenser with protective polyester powder

Condenser manufactured of plated copper tubes with aluminium fins

for CEN 046÷096. All units are equipped with condenser air filters with

They can be easily removed for assistance and cleaning. Cataphoresis

Fans with 4 pole, axial motors, with curved blades to improve rotation

Stainlesteel brazed plate heat exchanger. Thermally insulated and

[2] EER

- [1] Performances with pump P2 selection
- [2] Data referred to the unit without pump

coating standard for CEN 010÷038.

aluminum mesh and galvanized structure.

internal thermal protector and IP 54.

protected by water filter connected at the inlet.

Sized for low water temperature operation

are available as an option.

• [3] Data related to the heaviest conditions allowed without the intervention of the safety devices

CONTROL PANEL

- [4] Data referred to 10m and at a height of 1,5 m in open field
- [5] For CEN 010 ÷ 046: threaded connections CEN052 ÷ 096: grooved connections

Control panel complying with EN 60204 CE, with door lock disconnector (blocks access to the control panel when it is live) and watertight door to access the electronic control.

It includes circuit breaker protectors for compressors and pump, contactors, autotransformers, compressor rotation direction control devices; the cables are identified.

anti-corrosion treatment is available as an option on the entire range of MICROPROCESSOR CONTROLLER

It allows to check at any time the operation parameters: condensing pressure, evaporating pressure, inlet and outlet temperatures and all digital inputs and outputs. In case of partial or total stop of the unit, the alarm history is available and allows to know which security device has speed and decrease noise, with protective grid. Direct drive motor with tripped. 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 Standard step condensation control; phase cut or electronic fan versions

> internet gateway. The controller's configuration is very easy by using a usb cable. This way any firmare update and mapping could be uploaded. No converter is required.



OPERATING LIMITS

-8.0

40%

8.57

6 662

104

16.76

27.77

150.00

0.77

1.70

0.89

1.60

400/3/50

IP54

55.5

925

1.580

530

6 861

185

19.16

32.15

177.40

0.77

1.70

1.01

2.00

400/3/50

IP54

1 1/2"

925

1.580

550

0%

6 031

154

-8.0

7 670

110

8 579

181

25.70

41.78

146.84

0.77

1.70

1 34

2.50

400/3/50

IP54

1 1/2

925

1.890

1.580

560

40%

18 83

9 603

140

8 912

217

9 913

172

25.54

41.08

146.14

0.62

1.25

1 48

2.70

400/3/50

IP54

1.380

2.590

1.960

Refer to the operating limits in the last release of the CEN technical manual. >> Contact the company.

7.0

0%

55.90

19.72

5.08

9 614

195

28.38

45.80

163.50

0.62

1.25

2.70

400/3/50

1.960

IP54

40%

10 720

142

10 778

156

31.39

50.74

172.97

0.62

1.25

1.48

2.70

400/3/50

IP54

1.380

2.590

1.960

910

11 915

93

12 825

140

37.13

60 51

205.75

0.94

1.70

3.60

400/3/50

IP54

14 062

43.10

70.26

250.23

0.94

1.70

2.43

4.80

400/3/50

IP54

300

1.380

1.960

1 110

106

16 468

48 67

78 81

254.50

0.94

1.70

2.43

4.80

400/3/50

IP54

1.380

3.090

1.960

1 130

ALTERNATIVE REFRIGERANT GAS

As an alternative to R410A, the CEN range is available with eco-friendly R454B refrigerant gas, with low environmental impact and GWP (global warming potential) of 466.

CHECKS AND TEST

Each CEN is tested with full load. The following tests are also carried out:

- Correct components assembly
- Pressurization of the refrigeration circuit to test for leaks using helium leak-searcher;
- Hydraulic circuit pressing
- Electric tests in compliance with standard EN60204
- Protections and safety devices correctly working
- Electronic controller correctly working;
- Thermal performance and electric quantities measurement.

MAIN FUNCTIONS:

- Pump on-off (optional)
- Fans operation
- Monitoring of the compressor switching cycles according to the outlet water temperature required
- Measure and display evaporator inlet and outlet water temperature
- Measure and display condensing and evaporating temperature pressure
- Antifreeze

- On-off remote control
- Alarm history
- General alarm remote control

NLARM MANAGMENT

- Low/high refrigerant pressure transducer
- Water differential pressure switch
- Wrong phase sequence
- Compressors thermal protection
- Temperature failure probes

- Pressure failure transducers High water temperature
- Antifreeze
- High and low refrigerant pressure switch
- General alarm available via clean contact in terminal block





vibration blocks, protected by an electronic device filled with lubricant oil.

Of hermetic scroll type. They are all equipped controlling phase sequences to avoid any contrary rotation with heating resistance, mounted on rubber anti- and complete with integrated ampere-thermic protector and