

## Water Chillers with Remote Air Condenser



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**WQRC 60 BLN****General Information**

These chillers with a remote condenser are compact units intended to cool water or glycol water. They are suitable for indoor installation.

They shall be coupled with a remote air condenser in order to dissipate the condensation heat in the atmosphere.

**Standard Version (BLN)**

These units are suitable for an outdoor installation on the building roof rather than directly on the ground level. This unit is Low Noise partialy.

**Cabinet And Structure**

It is made up of zinc plated steel bars and sheets. It is painted with polyester powders and baked in the furnace (high resistance anticorrosive treatment in presence of an aggressive atmosphere). Its screws are made of stainless steel.

Modular realisation providing for a perfect air flow rate and an easy access to the various components for maintenance and repair operations.

**Compressors**

Scroll hermetic type.

The rotor is cooled by the suction refrigerating fluid.

The compressors are complete with:

- \*built-in thermistor protection
- \*protection against overloads
- \*IP54 terminal boards
- \*crankcase oil heater

**Indoor Heat Exchangers**

Type with stainless steel plates.

Equipped with:

- \*antifreeze electrical heater complete with a thermostat
- \*external heat insulation with a closed cell mattress
- \*threaded water connections for the loop

**WQRC 60 BLN**
**General technical data**

Cooling Capacity	kW	53,23
Input Power	kW	16,18
ESEER		0
IPLV		
EER		3,34
Condensing temperature	°C	50
Number of refrigerating circuits	n°	1
Part load steps	n°	0-50-100
power supply	V/f/Hz	400/3/50
Max input Power *	kW	25
Maximum running current *	A	54
startup current (No Soft Starter) *	A	167
Refrigerant		R410A

**Compressors**

Number	n°	2
Type		Scroll
startup Type		Direct

**Evaporator**

Number	n°	1
Type		Plates
Chilled Fluid		Water
Chilled Fluid Flow Rate	l/s	2,55
Pressure drop on the chilled fluid side	kPa	15,25
Chilled fluid inlet temperature	°C	12
chilled fluid outlet temperature	°C	7
Fouling factor	m <sup>2</sup> °C/kW	0,044
water connections Type		Victaulic
Inlet diameter		2"1/2
outlet diameter		2"1/2

**Refrigerant Connections**

Type of Connection		To be brazed
Discharge connection		7/8"
Liquid Connection		1 1/8"

**Dimensions and weights**

Length *	mm	1210
Width	mm	850
Height	mm	1500
Operating weight *	kg	344
Shipping weight *	kg	339

As part of our ongoing product improvement program, our products are subject to change without prior notice. Non contractual photos.

\* These data could variate due to the selection of some options.

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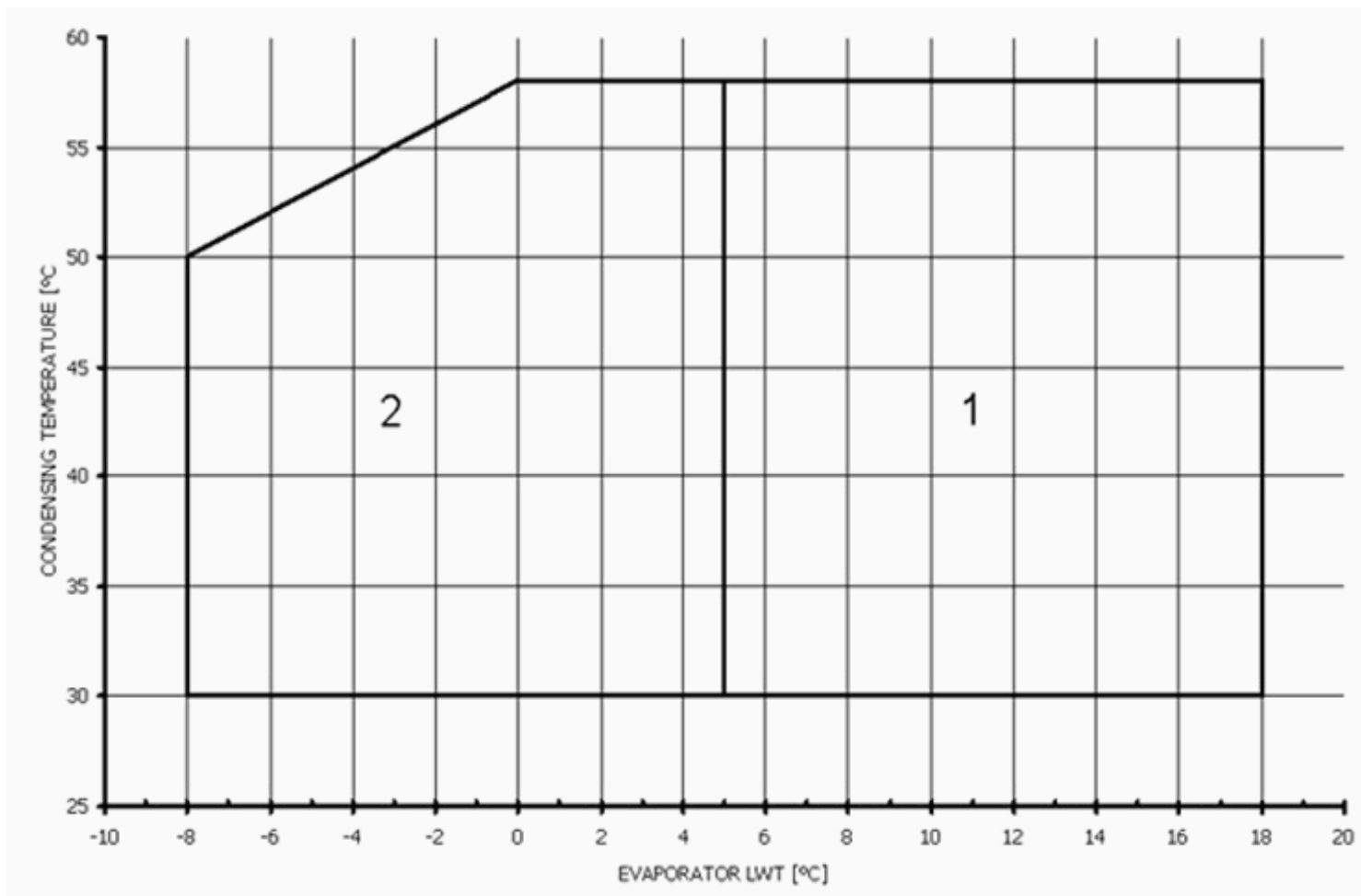
**Sound Information**

Mode	Sound Data Octave Band (Hz)								Sound Power Level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound Power Level dB								
Normal	63	66	68	68	66	61	59	49	70

Sound power level	dB(A)	70
Distance from the sound source	m	10
Sound pressure level**	dB(A)	39

\*\*Sound pressure levels refer to ISO standard 3744 with parallelepiped shape.

Operating Limit



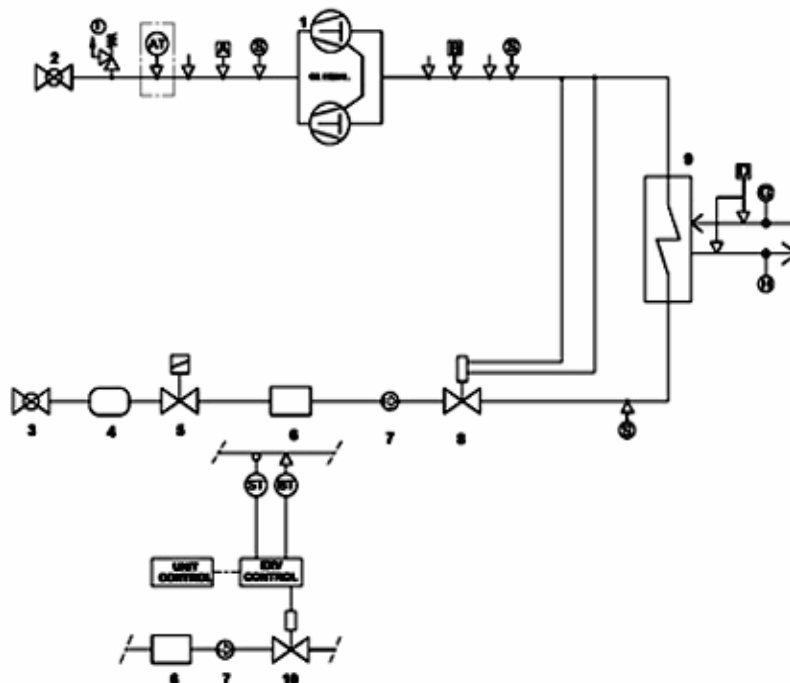
Zone 1: Water

Zone 2: Water and Glycol

NOTE: Under 5°C of water, EEV option is mandatory

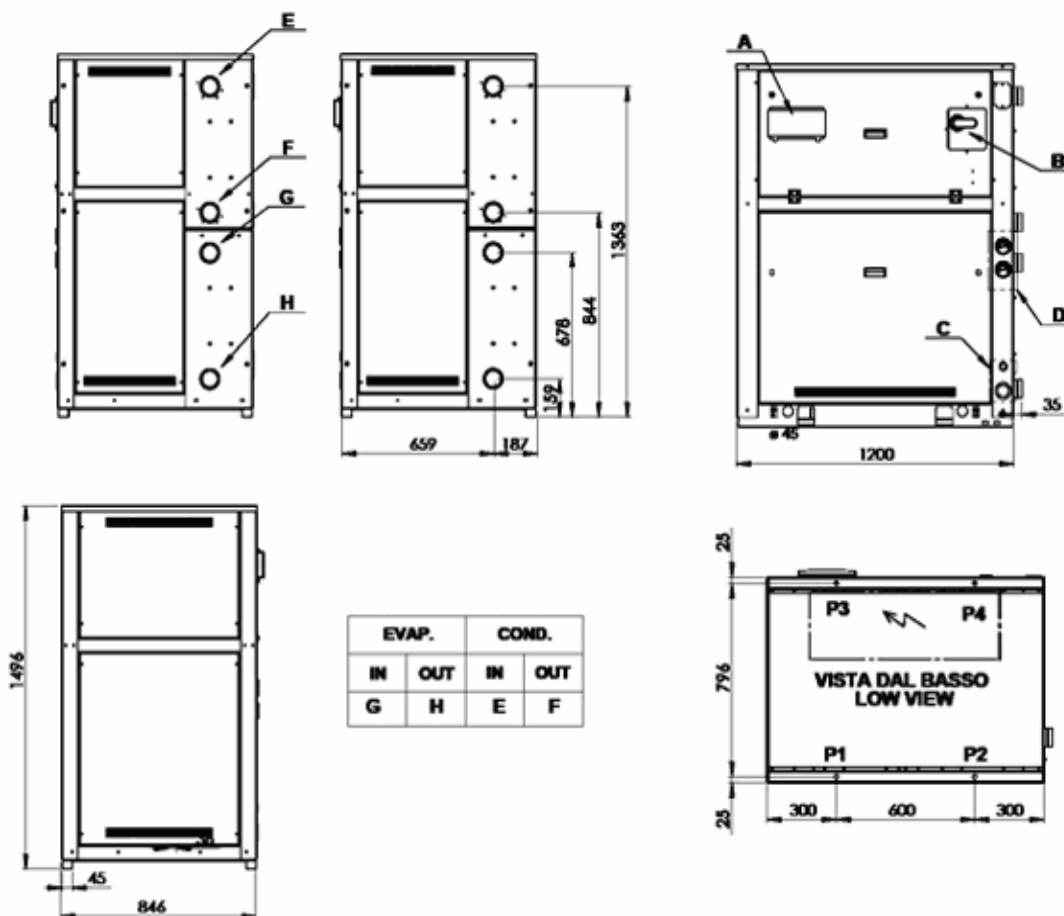
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Refrigeration Circuit



- 01) Compressor Tandem Scroll Type
- 02) Globe Valve
- 03) Globe Valve
- 04) Liquid receiver
- 05) Solenoid valve
- 06) Dehydrating filter
- 07) Electronic expansion valve (Optional)
- 08) Expansion valve
- 09) Evaporator
- 10) Electronic expansion valve (Optional)

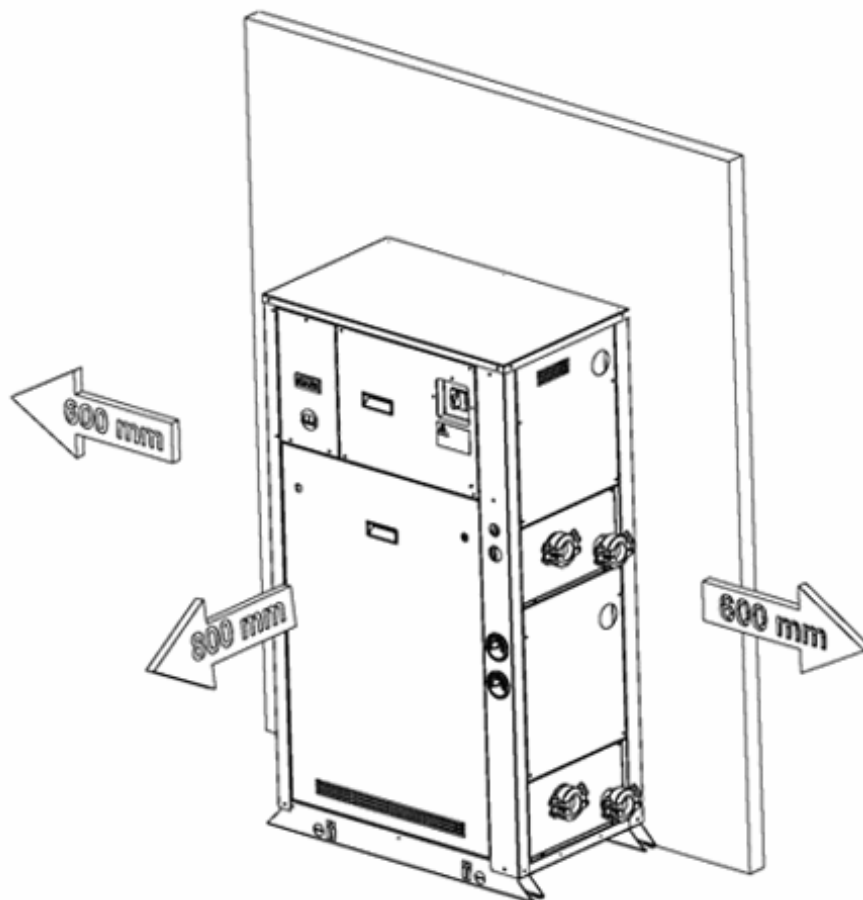
- A) High pressure switch (40,5 BAR)
- B) Low pressure switch (2 BAR)
- AT) High pressure transducer
- BT) Low pressure transducer
- S) 5/16" Shrader valve (charging point)
- F) Water inlet temperature sensor
- D) Water differential pressure switch (50 mBAR)
- G) Inlet water temperature sensor
- H) Outlet water temperature sensor
- I) Ped pressure relief valve (45 bar)

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**Dimensional Drawing**


- A) Control keypad / Display
- B) Main Switch
- C) Electrical power supply
- D) Gauge kit (optional)
- E, F, G, H, I, L - Water connections Ø 2 1/2" VIC

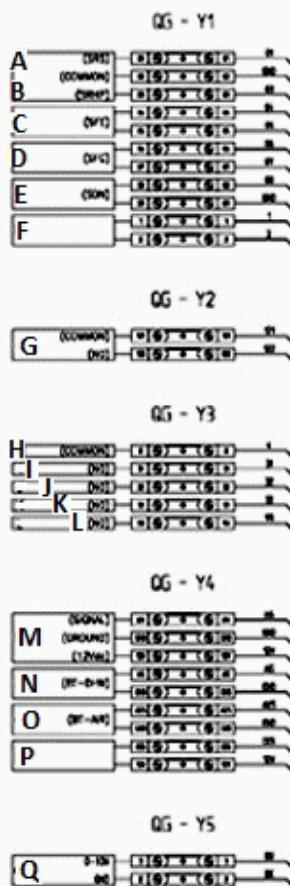
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### Space requirements



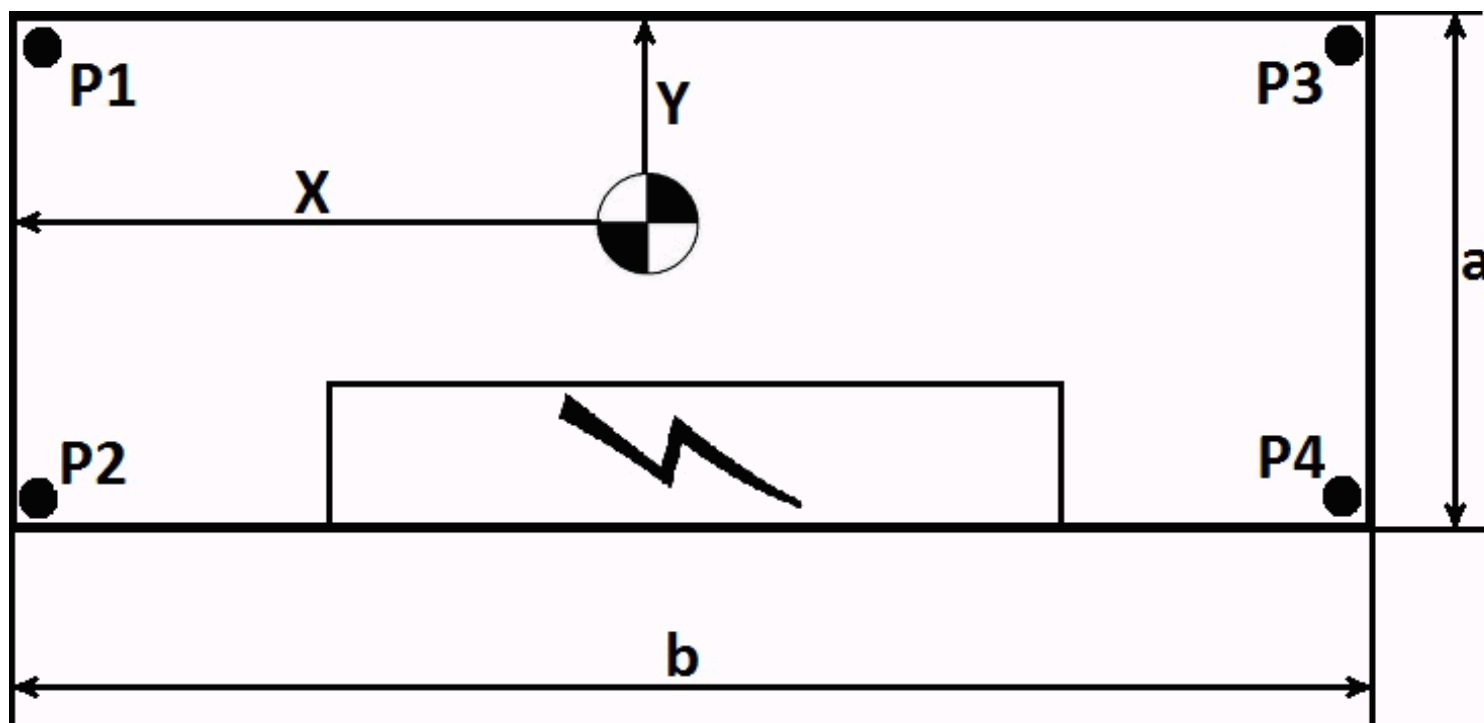


Electrical connections



- A - Remote Start/Stop Switch
- B - Remote Summer/Winter Switch (Only HP)
- C - Evaporator Flow Switch (Optional)
- D - Condenser Flow Switch (Optional)
- E - Remote Double Set Point Switch
- F - External Interlok (Optional)
- G - General Alarm
- H - Common (230Vac)
- I - Evaporator Pump Relay (Max 10A a 250V)
- J - Condenser Pump Relay (Max 10A a 250V)
- K - Integration Boiler Relay Control (MAX 10VA 250V)
- L - Domestic Hot Water Solenoid Valve (MAX 10VA 250V)
- M - Dynamic Set Point With Possible Compensation (Current Input 4-20mA, Voltage Input 0-10V, 0-5V, 0-1V)
- N - Domestic Hot Water Temperature Probe (NTC)
- O - Outdoor Air Temperature Probe (NTC)
- P - Integration Electrical Heater Relay control (Open Collector 12V)
- Q - Condensing Control Analogue Output 0...10V (MAX 40mA)

Weights Distribution



Weights Distribution (kg)			
P1	P2	P3	P4
101	115	57	71

Distance between the supports (mm)	
A	B
796	600

Shipping Weight (kg)	339
Operating Weight (kg)	344

\* Data referred to the unit without Hydro option