

Model: BMGC 25 FC

Free-cooling water chillers

GENERAL FEATURES

Aircooled water chiller units, with axial fans complete with "Free-Cooling" section for energy saving.

Frame

With supporting frame, in galvanized sheet further protected with polyester powder painting. Stainless-steel screws.

Compressor

Scroll hermetic 3-phase compressor, complete with overload protection (klixon) embedded in the motor and crankcase, if needed, installed on rubber vibrations absorbing.

Fans

Axial fan type low ventilation and special wing profile, they are directly coupled to external rotor motors with protection grade IP54, condensation control and a safety fan guard fitted on discharge air flow.

Condenser

Copper tube and aluminium finned coil.

Evaporator

In AISI 316 stainless steel brazewelded plates type. The evaporator is insulated with flexible closed cells material.

Electrical board

Includes: main switch with door safety interlock, fuses, overload protection for compressors and pump.

Microprocessor

to control following functions: regulation of the water temperature, antifreeze protection, compressor timing, alarm reset, potential free contact for remote general alarm; visual system with digital display: compressor delay relay/on, inlet water temperature, set point and differential setting, alarm decodification. A differential thermostat controls the free-cooling system.

Refrigerant circuit

dryer filter, thermostat expansion valve with external equalisation, liquid and humidity indicator, manual reset high pressure switch and automatic reset low pressure switch.

Water circuit with additional inertial tank

heat exchanger, 3-way valve, evaporator, temperature sensor, anti-freeze sensor, differential water pressure switch, manual air vent, insulated tank, circulating pump, safety valve, gauge, plant charge and discharge shut off valve and expansion vessel.

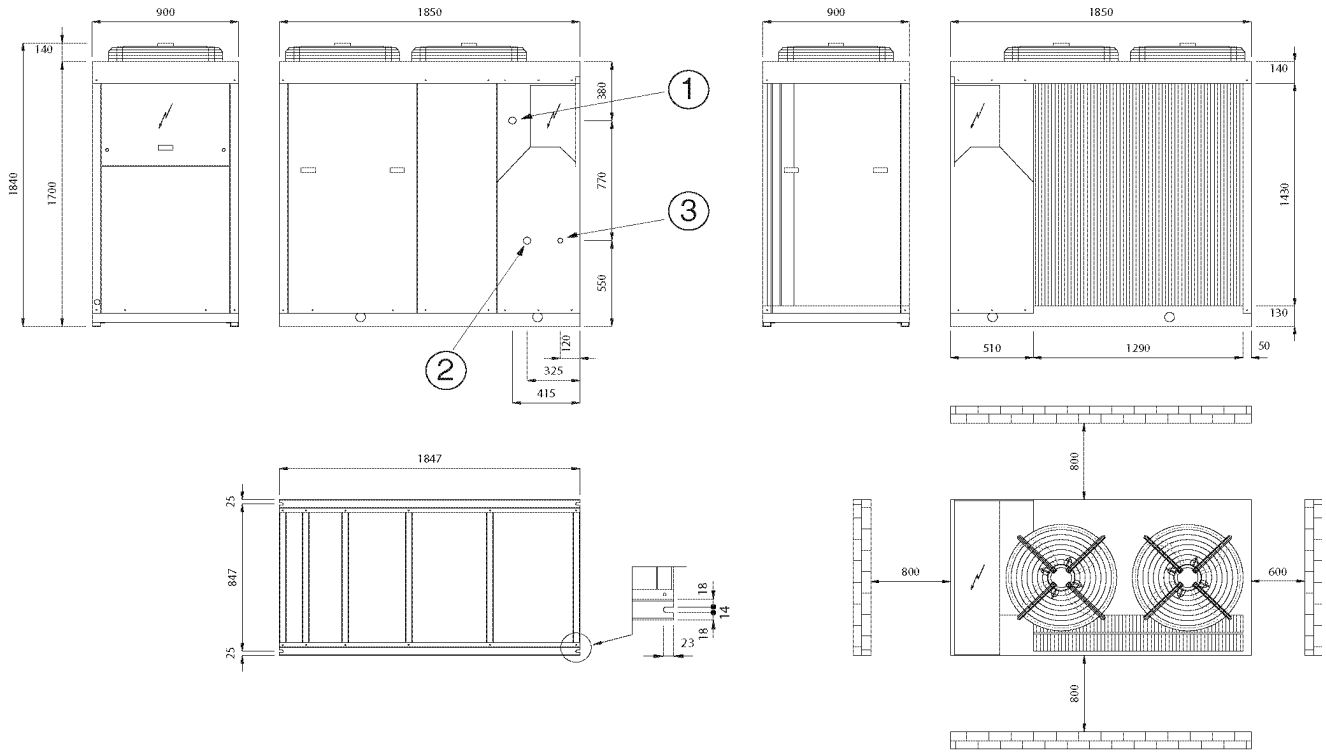
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GENERAL INFORMATION		Summer	Winter
Cooling capacity	kW	25,0	
Heating capacity	kW		
Power input compressors	kW	6,5	
Refrigerant	Type	R410A	
Compressors	Type	Hermetic	
Compressors / Refrigerant circuits	n°	1 / 1	
Capacity steps	%	0-100	
Refrigerant charge	kg	6,1	
ESEER		3.51	
IPLV		3.94	
ELECTRICAL DATA			
Power input unit	kW	9,3	
Input current unit	A	17,7	
Max input current unit	A	20,2	
Inrush current unit	A	85,0	
Supply voltage (power)	V/Hz/Ph	400/50/3+N	
Supply voltage (auxiliary)	V/Hz/Ph	230-24/50/1	
SOUND PRESSURE			
Sound pressure level at 1 m from the unit (ISO 3744)	dB(A)	52	
FAN SECTION (PRIMARY)			
Condenser	Type	Finned coils	
Fans	n°	2	
Ambient air temperature	°C	35,0	
Air flow	m³/s	4,44	
Usable static pressure	Pa		
Power input	kW	2,0	
Current input	A	3,5	
HYDRAULIC SECTION (SECONDARY)			
Evaporator	Type	Plate	
Fluid		Ethilene Glycol 30%	
Inlet temperature	°C	20,0	
Outlet temperature	°C	14,0	
Waterflow	l/s	1,1	
Pressure drop	kPa	59,0	
FREE COOLING			
FC capacity	kW	21,0	
Inlet temperature (secondary flow)	°C	20,0	
Air inlet temperature	°C	11,0	

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K VERSION		
Pump available static pressure	kPa	170
Pump nominal power	kW	0.75
Pump nominal current	A	2,1
Ex vessel volume	Litres	8
Tank volume	Litres	150
DIMENSIONS AND WEIGHT		
Length x Width x Height	mm	1850x900x1840
Transport weight / Operating weight	kg	525 / 675

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- 1) WATER INLET 1" M
- 2) WATER OUTLET 1" M
- 3) VOLTAGE SUPPLY INLET