

MCG Series 90K-180K Modular Chillers

The Standard In Chilled Water Marine Air Conditioning



Marine Air's MCG chilled water series is available in capacities ranging from 24,000 (2 ton) to 180,000 (15 ton) BTU/hr. Featuring a compact base design, MCG modules can be staged to provide a larger system, which is easily retrofitted and serviced in the field. Up to six 15-ton stages can be configured for a system total of 1,080,000 BTU/hr, or 90 tons.

Each refrigerant circuit is hermetically sealed and factory pre-charged with R-410A refrigerant. This environmentally safe refrigerant has exceptional thermodynamic properties and maximizes system efficiency.

Each condensing unit is monitored and protected with freeze controls, high-limit switches, high and low aquastats, and timers. These condensing units can be installed in any convenient location and are unaffected by vibration, moisture or ambient temperatures up to 140°F/60°C.

MCG chillers are monitored and protected by Marine Air's exclusive Digital Diagnostic Controller (DDC), which can be installed remotely. For staged systems, the Chilled Water Master Controller (CWMC) provides central control over each DDC on each module in the system. Up to six modules are supported. The CWMC coordinates all cooling and heating functions, evenly distributes compressor run times, and operates the seawater and circulated water pumps.

MCGs are available in single phase or three phase, 50Hz or 60Hz, and all standard voltages (208, 230, 380, 460 VAC).

Key Benefits

- Compact footprint for installation flexibility.
- Aluminum construction is corrosion resistant and lightweight.
- Up to six modules can be multiplexed for larger capacities.
- Electrical box can be remotely mounted up to 6 ft. (1.8 m).
- Bi-flow expansion valves balance the system between heat and cool modes.
- Compact stainless-steel brazed plate heat exchangers for maximum efficiency.
- Spiral-fluted cupronickel condenser coil provides maximum heat transfer and corrosion resistance.
- Digital Diagnostic Controller (DDC) monitors and protects the system.
- Engineered to maximize the performance of R-410A, an environmentally safe refrigerant.
- Charged, tested, and leak checked at the factory.
- Meets or exceeds all applicable standards and regulation.
- Charge Guard protection provides sealed access ports, ensuring environmental protection and chiller module integrity.

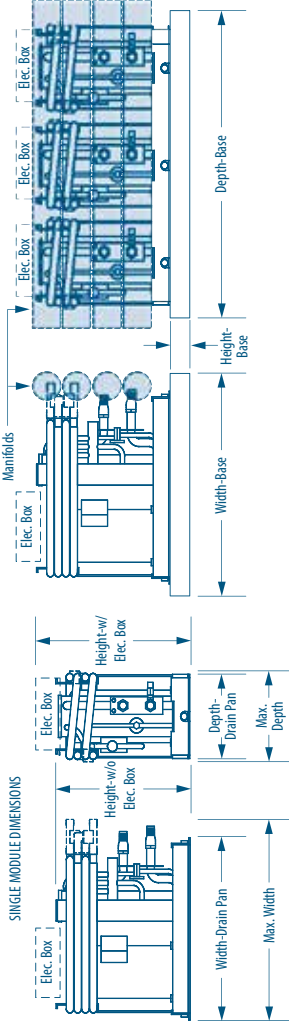
Specifications for MCG Series 90K-180K Modular Chillers

Model ⁽¹⁾	MCG190	MCG120	MCG150	MCG180
Capacity (BTU/h)	90000	120000	150000	180000
Voltage (V)	230	380	460	230
Cycle (Hz/Phase/Ph)	60/3	60/3	50/3	60/3
Full Load Amps (FLA) Cool (A)	25.3	14.7	25.3	15.1
Full Load Amps (FLA) Heat (A)	31.5	14.9	19.2	19.3
Locked Rotor Amps (LRA) (A)	235	110	267	147
Max. Circuit Breaker (A)	101	56	42	103
Min. Circuit Ampacity (A)	57	32	24	38
Refrigerant Type	R410A	R410A	R410A	R410A
Height-Without Elec. Box (in/mm) ⁽²⁾	27.66/703	33.61/854	46.24/1175	49.51/1258
Height-With Elec. Box (in/mm) ⁽²⁾	31.07/790	37.71/958	N/A	N/A
Depth-Drain Pan (in/mm) ⁽²⁾	16/407	16/407	18.63/474	18.63/474
Max. Width (in/mm) ⁽²⁾	17.37/442	17.4/442	19.5/496	19.5/496
Depth-Drain Pan (in/mm) ⁽²⁾	24/610	24/610	26.75/680	26.75/680
Max. Depth (in/mm) ⁽²⁾	30.84/784	30.84/784	31.88/810	31.88/810
Seawater Connection (in/mm)	1 1/2/39	1 1/2/39	2.5/1	2.5/1
Chilled Water Connection Size (in)	1 1/2	1 1/2	2	2
Height-Electrical Box (in/mm) ⁽²⁾	13.3/338	13.3/338	N/A	N/A
Width-Electrical Box (in/mm) ⁽²⁾	12/305	12/305	N/A	N/A
Depth-Electrical Box (in/mm)	4.3/110	4.3/110	N/A	N/A

¹ For information about net weight and shipping weight, please contact a Dometic Marine sales representative at 954-973-2477.

² All dimensions ± 0.30 in. (8 mm).

Dimensions



Dimensions for Multi-Stage Systems

No. of Stages	Height-Base (in/mm)	Width-Base (in/mm)	Depth-Base (in/mm)	Height-CWIMC ⁽¹⁾ (in/mm)	Width-CWIMC ⁽¹⁾ (in/mm)	Depth-CWIMC ⁽¹⁾ (in/mm)
MCG90 to MCG120 Modules						
2	3.0/76	36.0/914	35.5/902	24.0/610	22.0/559	7.75/199
3	3.0/76	53.5/1359	35.5/902	24.0/610	22.0/559	7.75/199
4	3.0/76	72.5/1816	35.5/902	24.0/610	30.0/762	7.75/199
5	3.0/76	88.5/2248	35.5/902	24.0/610	35.0/889	7.75/199
MCG150 to MCG180 Modules						
2	3.0/76	39.25/997	38.75/984	24.0/610	22.0/559	7.75/199
3	3.0/76	59.88/1521	38.75/984	24.0/610	22.0/559	7.75/199
4	3.0/76	80.5/2045	38.75/984	24.0/610	30.0/762	7.75/199
5	4.0/102	101.13/2569	38.75/984	24.0/610	35.0/889	7.75/199

¹ Indicates dimensions of Chilled Water Master Controller for Marine Air multi-stage chillers. Please refer to L-2133 for additional information.

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Specifications and availability subject to change without notice.



Dealer