

MCGX Titan Series 24K-72K Modular Chillers

Compact Base and Titanium Durability



Marine Air MCGX Titan modular chillers use titanium condensers to greatly increase durability and product lifespan. Titanium is unaffected by the punishing combination of saltwater, invasive marine life, and the harsh acids used for routine cleaning of the condenser coil. Titan service life is greatly extended compared to cupronickel systems—the industry standard—which inevitably suffer catastrophic failure from corrosion and erosion in the harsh marine environment.

The MCGX 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, MCGX 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.

MCGX 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.

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

Key Benefits

- Titanium condenser resists erosion and corrosion
- Titanium condenser increases durability and product lifespan
- 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
- 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 MCGX Titan Series 24K-72K Modular Chillers

Model ⁽¹⁾	MCGX24	MCGX36	MCGX48	MCGX60	MCGX72
Capacity (BTU/h)	24000	36000	48000	60000	72000
Voltage (V)	230	230	230	230	230
Cycle (Hz/Phase (Ph))	60/1	60/3	60/3	60/3	60/3
Full Load Amps (FLA) Cool (A)	6.4	9.6	5.5	3.5	2.7
Full Load Amps (FLA) Heat (A)	9.5	11.9	7.3	4.6	3.6
Locked Rotor Amps (LRA) (A)	58.3	97	58	45	28
Max. Circuit Breaker (A)	45	29	20	18	18
Min. Circuit Ampacity (A)	25	28	17	13	10
Refrigerant Type	R410A	R410A	R410A	R410A	R410A
Height-Without Elec. Box (in/mm) ⁽²⁾	17.22/438	23.57/599	23.57/599	23.57/599	23.44/596
Height-With Elec. Box (in/mm) ⁽²⁾	21.74/553	23.57/599	23.57/599	23.57/599	26.08/663
Width-Drain Pan (in/mm)	12/305	12/305	12/305	12/305	12/305
Max. Width (in/mm) ⁽²⁾⁽²⁾	12/305	12.5/318	12.5/318	13.25/337	13.25/337
Depth-Drain Pan (in/mm) ⁽²⁾⁽²⁾	24/610	24/610	24/610	24/610	24/610
Max. Depth (in/mm) ⁽²⁾	24.97/635	30.78/782	30.78/782	30.7/780	30.04/764
Seawater Inlet Connection (in/mm)	5/8 /16	1/26	1/26	1/26	1/26
Chilled Water Connection	1	1	1	1	1
Size (in)	11/280	11/280	11/280	11/280	11/280
Height-Electrical Box (in/mm) ⁽³⁾	9.8/249	9.8/249	9.8/249	9.8/249	9.8/249
Depth-Electrical Box (in/mm)	3.7/94	3.7/94	3.7/94	3.7/94	3.7/94

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).

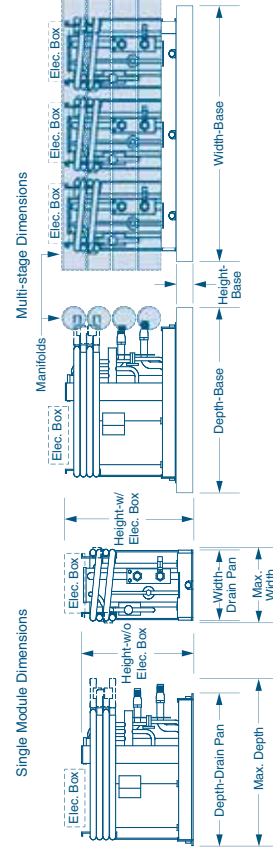
³ The electrical box (DDC) for single chiller modules can be mounted remotely.

Dimensions for Multi-Stage Systems

No. of Stages	Height-Base (in/mm)	Width-Base (in/mm)	Depth-Base (in/mm)	Height-CWMC ⁽¹⁾ (in/mm)	Width-CWMC ⁽¹⁾ (in/mm)	Depth-CWMC ⁽¹⁾ (in/mm)
2	1.50/38	28.0/712	31.0/787	24.0/610	22.0/559	7.75/199
3	1.50/38	41.5/1054	31.0/787	24.0/610	22.0/559	7.75/199
4	1.50/38	55.5/1410	31.0/787	24.0/610	30.0/762	7.75/199
5	1.50/38	69.5/1765	31.0/787	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.

Dimensions



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Specifications and availability subject to change without notice.

Dealer

