MCG Low-Profile Series Modular Chillers

Space-Saving Chiller Design

Marine Air MCG Low-Profile Chillers are designed for locations onboard where height is an obstacle. At a height of only 18.25 in. (464 mm) for 3- to 6-ton models and 25.2 in. (640 mm) for 12.5- and 15-ton models, MCGLP units are much shorter than other chillers in the same capacity range, but no shorter on performance and reliability.

MCGLP chillers provide reverse-cycle cooling and heating and are available in capacities from 36,000 to 180,000 BTU/hr (3 to 15 tons). Individual modules can be staged for larger capacities. The MCGLP series uses R-410A environmentally safe refrigerant, which has exceptional thermodynamic properties and maximizes system efficiency.

Performance and reliability are further improved with up to 25 percent more condenser area than similar low-profile units, and an expansion valve that modulates the refrigerant.

The MCGLP series has stainless-steel drain pans for 3- to 6-ton modules, and lightweight painted aluminum drain pans for 12.5- to 15-ton modules. All models have removable PVC water headers that resist corrosion and erosion.

MCGLP 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.

MCG low-profile modules are available in capacities up to 15-tons and can be staged for higher capacities.

Key Benefits

- Fits into height-restrictive spaces
- Reverse-cycle heating
- Stainless-steel drain pan on 36,000 - 72,000 BTU/hr models
- Lightweight painted aluminum drain pan on 150,000 - 180,000 BTU/hr models
- Up to six modules can be multiplexed for larger capacities
- Up to 25% more condenser area than similar units
- Spiral-fluted cupronickel condenser coil provides maximum heat transfer and corrosion resistance
- Engineered to maximize the performance of R-410A, an environmentally safe refrigerant
- Electrical box can be remotely mounted up to 6 ft. (1.8 m)
- Removable PVC water headers resist corrosion and erosion
- Expansion valve modulates refrigerant for improved performance
- Hot-gas bypass to provide heating in cold seawater conditions (36,000 - 72,000 BTU/hr models)
- 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

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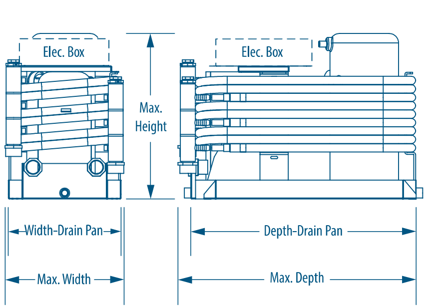
Specifications for MCG Low-Profile Series Modular Chillers

Model [1]	MCGVLP36				MCGVLP48					MCGVLP60					MCGVLP72				MCGVLP150			MCGVLP180		
Capacity (BTU/h)	36000				48000					60000					72000				150000			180000		
Voltage (V)	230	220	230	460	230	220	230	380	460	230	220	230	380	460	230		380	460	230	380	460	230	380	460
Cycle (Hz)/Phase (Ph)	60/1	50/1	60/3		60/1	50/1	60/3	50/3	60/3	60/1	50/1	60/3	50/3	60/3	60/1	60/3	50/3	60/3	60/3	50/3	60/3	60/3	50/3	60/3
Full Load Amps (FLA) Cool (A)	12.9	12.3	8.3	3.9	13.8	14.7	11.3	5.8	5.2	17.8	22.2	11.3	8.3	5.9	20.1	14.2	10.1	7.1	30.6	19.9	15.1	38.3	24.1	20.2
Full Load Amps (FLA) Heat (A)	16.8	18	10.9	5	20.2	21.4	12.7	7.6	6.6	23	29.1	14.8	10.8	7.4	29.3	17.9	13.3	8.9	38.9	24.5	19.3	50	29.9	25
Locked Rotor Amps (LRA) (A)	105	102.5	95	45	150	130	120	70	60	145	130	123	87	70	145	160	100	87	304	197	147	351	239	197
Max. Circuit Breaker (A)	70	75	50	23	80	90	58	33	30	100	101	60	42	33	94	81	42		144	86	67	168	114	86
Min. Circuit Ampacity (A)	43	41	27	12	48	50	33	19	17	57		34	24	19	53	45	24		80	49	38	94	64	49
Refrigerant Type	R410A				R410A					R410A					R410A				R410A			R410A		
Max. Height (in/mm) [2]	18.25/464				18.25/464					18.25/464					18.25/464				25.2/641			25.2/641		
Width-Drain Pan (in/mm) [2]	12/305				12/305					12/305					12/305				20.13/512			20.13/512		
Max. Width (in/mm) [2]	12.69/323				12.69/323					12.69/323					12.69/323				21.5/547			21.5/547		
Depth-Drain Pan (in/mm) [2]	24/610				24/610					24/610					24/610				36.75/934			36.75/934		
Max. Depth (in/mm) [2]	25.38/645				25.38/645					25.38/645					25.38/645				40.03/1017			40.03/1017		
Seawater Inlet Connection (in/mm)	1 /26				1 /26					1 /26					1 /26				2 /51			2 /51		
Chilled Water Connection Size (in)	1				1					1¼					1¼				2			2		
Height-Electrical Box (in/mm)	11/280				11/280					11/280					11/280				13.3/338			13.3/338		
Width-Electrical Box (in/mm)	9.8/249				9.8/249					9.8/249					9.8/249				12/305			12/305		
Depth-Electrical Box (in/mm)	3.7/94				3.7/94					3.7/94					3.7/94				4.3/110			4.3/110		

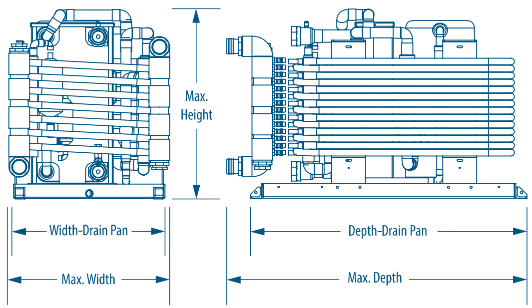
[1] For information about net weight and shipping weight please contact a Dometic Marine sales representative at 954-973-2477.
[2] All dimensions ± 0.30 in. (8 mm).

Dimensions

MCGLP 3- TO 6-TON MODULES



MCGLP 12.5- TO 15-TON MODULES



DOMETIC MARINE DIVISION
2000 N. Andrews Ave. Ext. | Pompano Beach, FL 33069 USA | Tel. 954-973-2477 | Fax: 954-979-4414
www.Dometic.com/Marine | MarineSales@DometicUSA.com

24/7 TECH SUPPORT FOR UNITED STATES & CANADA:
8:00 AM to 5:00 PM Eastern Time: 800-542-2477
After hours and weekends: 888-440-4494

INTERNATIONAL SALES & SERVICES
Europe & the Middle East: Call +44(0)870-330-6101
For all other areas visit our website to find your nearest distributor.

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Specifications and availability subject to change without notice.

Environmentally Responsible

Assembled in the USA

Dealer