

# 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.

### 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.

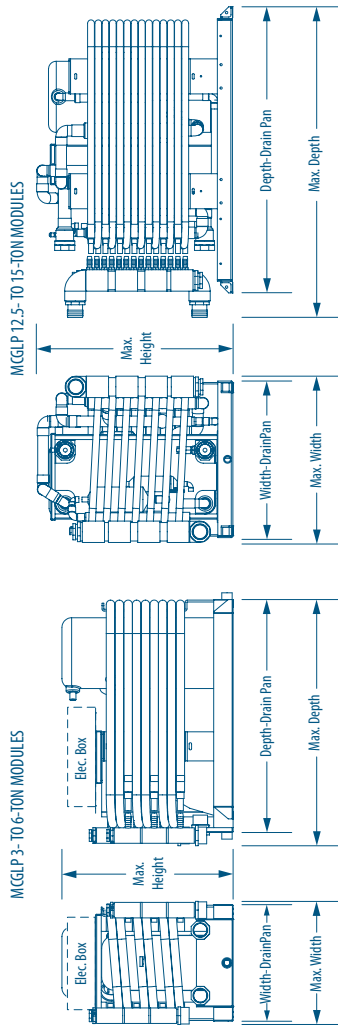
# Specifications for MCG Low-Profile Series Modular Chillers

Model <sup>(1)</sup>	MCGVLP36				MCGVLP48				MCGVLP60				MCGVLP72				MCGVLP150				MCGVLP180			
	36000	48000	60000	72000	36000	48000	60000	72000	36000	48000	60000	72000	150000	180000	36000	48000	60000	72000	150000	180000	36000	48000	60000	72000
Capacity (BTU/h)	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
Voltage (V)	60/1	50/1	60/3	60/3	60/1	50/1	60/3	60/3	60/1	50/1	60/3	60/3	60/1	50/1	60/3	60/3	60/3	60/3	60/1	50/1	60/3	60/3	60/3	60/3
Cycle (Hz/Phase (Ph))	12	12.3	8.3	3.9	13.8	14.7	11.3	5.2	15.8	22.2	11.3	8.3	20.1	14.2	10.1	7.1	30.6	19.9	15.1	38.3	24.1	20.2	20.2	20.2
Full Load Amps (FLA) Cool (A)	15.7	18	10.9	5	20.2	21.4	14	7.6	6.6	23	29.1	14.8	10.8	7.4	29.3	17.9	38.9	24.5	19.3	50	29.9	25	25	25
Full Load Amps (FLA) Heat (A)	105	102.5	95	45	150	130	120	70	60	145	130	123	87	70	145	160	100	87	351	239	197	147	197	197
Loaded Rotor Amps (LRA) (A)	77	75	50	23	85	90	58	33	30	101	60	60	42	33	94	81	42	144	86	67	168	114	86	86
Max. Circuit Breaker (A)	43	41	27	12	48	50	33	19	17	57	34	34	24	19	53	45	24	38	94	64	94	64	64	64
Min. Circuit Ampacity (A)	R410A				R410A				R410A				R410A				R410A							
Refrigerant Type	R410A				R410A				R410A				R410A				R410A							
Max. Height (in/mm) <sup>(2)</sup>	18.25/464				18.25/464				18.25/464				18.25/464				18.25/464							
Width-Drain Pan (in/mm) <sup>(2)</sup>	12/305				12/305				12/305				12/305				12/305							
Max. Width (in/mm) <sup>(2)</sup>	12.69/323				12.69/323				12.69/323				12.69/323				12.69/323							
Depth-Drain Pan (in/mm) <sup>(2)</sup>	24/610				24/610				24/610				24/610				24/610							
Max. Depth (in/mm) <sup>(2)</sup>	25.38/645				25.38/645				25.38/645				25.38/645				25.38/645							
Seawater Connection (in/mm)	1/26				1/26				1/26				1/26				1/26							
Chilled Water Connection Size (in)	1				1				1				1				1							
Height-Electrical Box (in/mm)	11/280				11/280				11/280				11/280				11/280							
Width-Electrical Box (in/mm)	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							

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

<sup>2</sup> All dimensions ± 0.30 in. (8 mm).

## Dimensions



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

L-2735 Rev. 20120824

Specifications and availability subject to change without notice.

Dealer

