

# Modular MTC Series

## The Next Generation of Chillers



MTC72DC

The MTC Series provides installation flexibility, reliability, maximum performance, and accessibility for easy maintenance and repair.

These reverse-cycle modules are available in capacities of 24,000-120,000 BTU/Hr (2 to 10 tons). Two or more modules can be staged to achieve higher capacities.

MTC units have extremely large heat exchangers that make it possible to achieve loop water temperatures of 40° F (4.4° C) in cooling, and 120° F (49° C) in heating. This also allows for reverse-cycle heating effectiveness in seawater temperatures as low as 38° F (3.5° C), eliminating the need for separate fossil fuel or electric water heaters in most applications.

MTCs have two sub-modules, identical in dimensions, which allow a sub-module to be rotated to achieve more convenient water connection locations or compressor access. The sub modules can even be separated for remote mounting when space is limited. Sub-module changes can be handled in the field, or special ordered from the factory.

All units have built-in protection devices, including: high- and low-pressure switches, loop-water flow switch, loop-water strainer, hot-gas bypass valve, and loop-water freeze sensor. A wire harness with polarized plug is included for easy electrical connections.

### Key Benefits

- Modular design for installation flexibility.
- Reverse-cycle heating and cooling.
- Scroll compressors standard.
- Dual sub-modules allow more convenient water connections or separation for remote mounting when space is limited.
- Removable seawater manifolds allow cleaning of condenser tubing.
- Integrated loop-water strainer and flow switch.
- Oversized heat exchangers for loop temperatures of 40° F (4.4° C) in cooling and 120° F (49° C) in heating.
- Thermal expansion valves optimize performance over a wide range of conditions.
- Hot-gas bypass valve maintains heating performance in cold seawater and helps prevent water freezing in the heat exchanger.
- 24,000 to 120,000 BTU/hr (2-10 tons).
- Uses environmentally safe R-407C refrigerant.

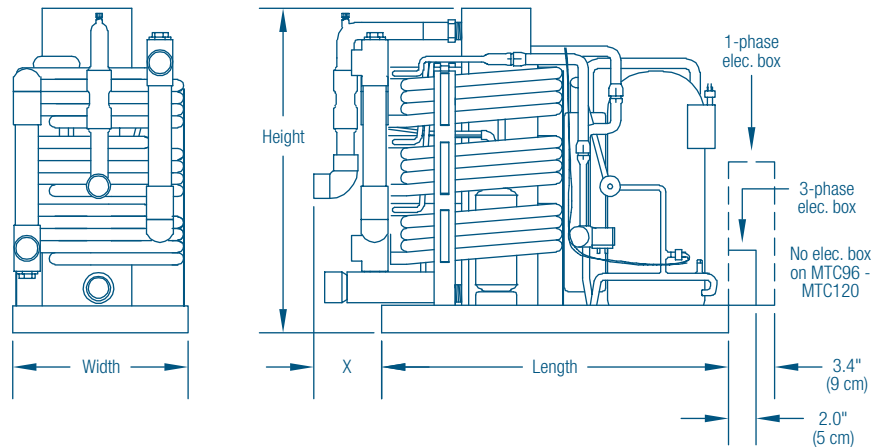
# Technical Specifications for MTC Modular Chiller Series

Model	Capacity BTU/hr (Kcal/hr) <sup>(1)</sup>	Volts/Hz/Ph <sup>(2) (3)</sup>	Full Load Amps Cool	Full Load Amps Heat	Locked Rotor Amps	Dimensions (in/cm) <sup>(4)</sup>				Connections		Weight (lb/kg) <sup>(4)</sup>
						Height	Width	Length	X	SW	CW	
MTC24C	24,000 (6,048)	230/60/1	7.2	9.8	59	17.0/43	12.8/32	25.3/64	5.0/13	5/8" HB	1" FPT	145/66 155/70 155/70 155/70
MTC24CK		220/50/1	7.5	10.4	56							
MTC24DC		230/60/3	5.3	6.9	55							
MTC24EC		460/60/3	2.7	3.5	27							
MTC30C	30,000 (7,560)	230/60/1	9.5	12.8	84	17.0/43	12.8/32	25.3/64	5.0/13	3/4" FPT	1" FPT	160/73 160/73 160/73 160/73
MTC30CK		220/50/1	9.5	13.1	75							
MTC30DC		230/60/3	6.5	8.3	63							
MTC30EC		460/60/3	3.3	4.4	31							
MTC36C	36,000 (9,072)	230/60/1	12.1	15.9	100	23.5/60	12.8/32	25.3/64	5.0/13	1" FPT	1" FPT	195/89 190/86 190/86 190/86
MTC36CK		220/50/1	11.1	15.2	97							
MTC36DC		230/60/3	7.6	9.7	77							
MTC36EC		460/60/3	3.8	4.9	39							
MTC48C	48,000 (12,096)	230/60/1	13.7	19.5	137	23.5/60	12.7/32	25.1/64	5.0/13	1" FPT	1" FPT	215/98 215/98 215/98 215/98 220/100
MTC48CK		220/50/1	15.4	21.7	150							
MTC48DC		230/60/3	9.9	12.7	91							
MTC48EC		460/60/3	4.7	6.3	50							
MTC48ECK	380/50/3	7.1	8.7	59								
MTC60C	60,000 (15,120)	230/60/1	18.2	25.3	169	23.5/60	12.7/32	25.1/64	5.0/13	1" FPT	1.25" FPT	230/105 220/100 220/100 225/102
MTC60DC		230/60/3	13.3	16.7	128							
MTC60EC		460/60/3	6.7	8.4	63							
MTC60ECK		380/50/3	6.8	8.9	67							
MTC66ECK	66,000 (16,631)	380/50/3	8.7	10.9	91	23.5/60	12.7/32	25.1/64	5.0/13	1" FPT	1.25" FPT	240/109
MTC72DC	72,000 (18,144)	230/60/3	14.0	18.4	156	23.5/60	12.7/32	25.1/64	5.0/13	1" FPT	1.25" FPT	240/109 240/109
MTC72EC		460/60/3	7.0	9.2	75							
MTC96DC	96,000 (24,192)	230/60/3	20.2	25.6	195	26.8/68	16.6/42	33/84	6.0/15	1.25" FPT	1.5" FPT	350/159 350/159 360/164
MTC96EC		460/60/3	10.0	12.6	95							
MTC96ECK		380/50/3	12.5	15.9	125							
MTC120DC	120,000 (30,239)	230/60/3	25.6	32.5	239	26.8/68	16.6/42	33/84	6.0/15	1.25" FPT	1.5" FPT	365/166 365/166 380/173
MTC120EC		460/60/3	12.9	16.3	125							
MTC120ECK		380/50/3	13.9	17.9	110							

Compressor Electrical Power Specs <sup>(2)</sup>	
Nominal Rating	Acceptable Range
230/60/1	208-240/60/1
220/50/1	220-240/50/1
230/60/3	208-230/60/3 and 190-220/50/3
220/50/3	200-220/50/3
460/60/3	440-480/60/3 and 380-420/50/3
380/50/3	380-420/50/3

**Notes:**

- <sup>(1)</sup> Cooling capacity at 100°F (38°C) condensing temperature and 35°F (2°C) evaporating temperature. Reverse-cycle heating capacity at 130°F (54°C) condensing temperature and 45°F (7°C) evaporating temperature.
- <sup>(2)</sup> For more information regarding compressor voltages, refer to Field Notice #192-B3 which is available for download at the Dometic Marine Resource Center ([www.Dometic.com/Enviro](http://www.Dometic.com/Enviro)).
- <sup>(3)</sup> See the Compressor Electrical Power Specs table above.
- <sup>(4)</sup> All dimensions are ± 1/2" (13mm). All weights are ± 10%.



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