

TWC Compact Tempering Unit

Compact & Enclosed Design



TWC24C shown

The TWC Compact is a high performance, cost effective Tempering Unit that provides all the advantages of a chilled water system while maintaining the performance levels associated with Dometic Marine. The reverse cycle TWC chiller cools and heats, and is currently available in 24,000 BTU/hr (2-ton) to 36,000 BTU/hr (3-ton) sizes. Multiple units can be installed to achieve the required total capacity.

All TWC chillers come with R-410A refrigerant, which is the preferred environmentally-friendly refrigerant used in modern high efficiency air conditioning systems. The brazed platecoil evaporator and coaxial cupronickel seawater condenser allow for superior cooling and heating performance.

Each unit includes a chilled water (CW) flow switch, high and low refrigerant pressure switches, and inlet and outlet CW temperature sensors. Note that this TWC chiller does not include a chilled water modulating flow control. This means that air handlers with or without flow controls can be used, though on larger boats we always recommend using flow-controlled air handlers to ensure proper water distribution. A balancing flow control (BFC) is not needed when using TWC chillers.

An electrical box mounted on top of the chiller houses the control board as well as starting components, and can be mounted remotely up to 6' (1.8m) away.

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Key Benefits

- Compact, enclosed design.
- Reverse cycle for cooling and heating.
- High-efficiency rotary or scroll compressor.
- Includes flow switch, high and low pressure switches, and inlet and outlet CW temperature sensors.
- Large heat exchangers for superior performance in both cooling and heating.
- Choice of either TWLC or DDC chiller control (included on unit).
- Electrical box can be mounted remotely.
- All models use R-410A refrigerant.

Two different chiller control systems are available. The standard control is our proven Digital Diagnostic Control (DDC) that provides simple, single-stage operation. For the customer who wants full system control with multi-unit

staging and LCD readout of chiller status, the Tempered Water Logic Control (TWLC) is available. Depending on the configuration, additional cables, switches, sensors, or a display may be required.

Technical Specifications for TWC Compact Tempering Units

Model	Capacity (BTU/hr) ⁽¹⁾	Volts/Hz/Ph ⁽²⁾	FLA Cool	FLA Heat	Dimensions (in/mm) ⁽³⁾			Connections		Weight ⁽³⁾ (lb/kg)	Refrigerant
					Height	Width	Length	SW	CW		
TWC24C TWC24CK TWC24DC TWC24EC TWC24ECK	24,000	230/60/1	7.5	9.8	18.6/472	13.0/330	18.8/477	5/8" HB	1" FPT/ 1" HB	105/48	R-410A
220/50/1		9.5	11.0								
230/60/3		5.7	7.3								
460/60/3		2.8	3.6								
380/50/3		3.3	4.4								
TWC30C TWC31CK TWC32DC TWC33EC TWC34ECK	30,000	230/60/1	9.3	13.5	18.6/472	13.0/330	18.8/477	5/8" HB	1" FPT/ 1" HB	110/50	R-410A
220/50/1		10.3	12.0								
230/60/3		7.2	9.1								
460/60/3		3.3 ⁽⁴⁾	4.2 ⁽⁴⁾								
380/50/3		N/A	N/A								
TWC36C TWC36CK TWC36DC TWC36EC TWC36ECK	36,000	230/60/1	10.9	15.6	18.6/472	13.0/330	18.8/477	5/8" HB	1" FPT/ 1" HB	110/50	R-410A
220/50/1		10.5	12.5								
230/60/3		8.0	10.2								
460/60/3		4.1	5.3								
380/50/3		4.0	5.6								

NOTES:

⁽¹⁾ Nominal capacity shown, as per ABYC guidelines of the compressor manufacturer's ratings.

⁽²⁾ Nominal compressor voltage shown. Refer to chart at right for operational voltage ranges.

⁽³⁾ All dimensions are ± 1/2" (13mm). All weights are ± 10%.

⁽⁴⁾ Preliminary data.

FLA = Full Load Amperage

LRA = Locked Rotor Amperage

Nominal Compressor Voltage Ranges

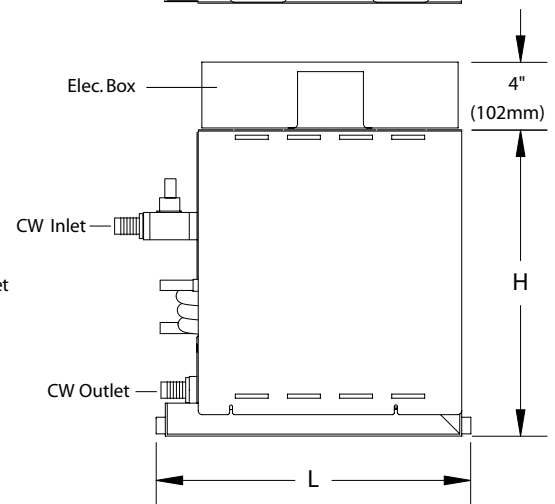
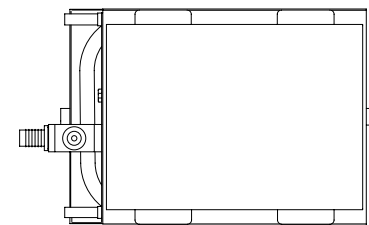
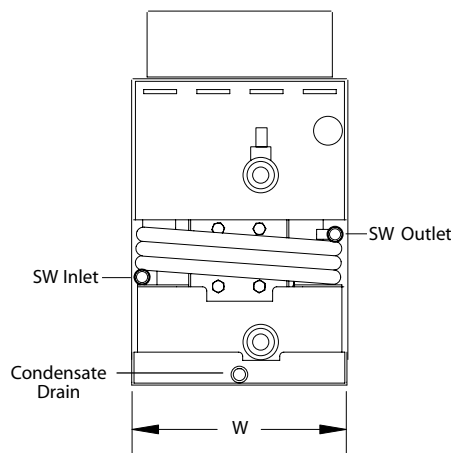
230/60/1 = 208-240/60/1

220/50/1 = 220-240/50/1

230/60/3 = 208-230/60/3 and 200-220/50/3

380/50/3 = 380-420/50/3

460/60/3 = 440-480/60/3 and 380-420/50/3



Dealer:

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