

Cruisair TWCX Titan Series Modular Chillers

Compact Enclosed Chillers With Titanium Durability



Cruisair TWCX Titan compact 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 TWCX is a high-performance, cost effective tempering unit. The reverse-cycle TWCX cools and heats, and is available in an expanded product range of 24,000 (2-ton) to 72,000 (6-ton) BTU/hr capacities. Units can be multiplexed for even larger capacities as required.

Each unit includes a chilled water (CW) flow switch, refrigerant high- and low-refrigerant pressure switches, and inlet and outlet CW temperature sensors. The TWCX does not include a chilled water modulating flow control, which means air handlers with or without flow controls can be used.*

On 2- to 3-ton units, 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 ft. (1.8 m) away. On 4- to 6-ton units, the electric box is normally contained within the enclosure and does not contribute to height. A remote electric box is available upon request for 4- to 6-ton units.

Two control systems are available. The standard control is our proven Digital Diagnostic Control (DDC) that provides simple, single-stage operation. For multiplexed systems, the Tempered Water Logic Control (TWLC) with LCD screen is available. Depending on the configuration, additional cables, switches, sensors, or a display may be required.

*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.



TWCX modular chillers have a compact footprint and feature a fully enclosed design.

Key Benefits

- Titanium condenser resists erosion and corrosion
- Titanium condenser increases durability and product lifespan
- Compact, enclosed design
- Reverse-cycle heating
- High-efficiency rotary or scroll compressors
- Includes flow switch, high- and low-pressure switches, and inlet and outlet circulated water temperature sensors
- Large heat exchangers for superior performance in booth cooling and heating
- Engineered to maximize the performance of R-410A, an environmentally safe refrigerant
- Electrical box can be mounted remotely for 2-ton and 3-ton models



Specifications for Cruisair TWCX Titan Series Modular Chillers

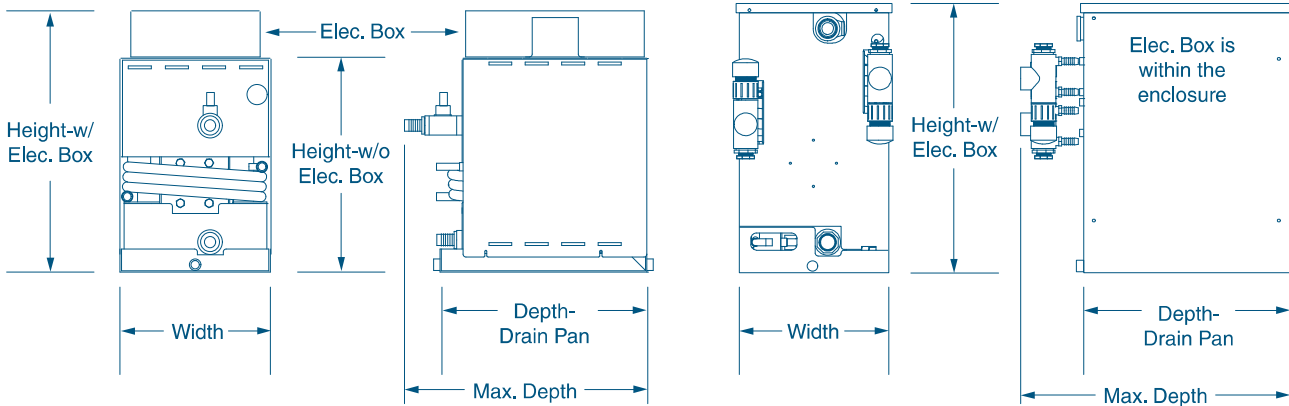
| Model ⁽¹⁾ | TWCX24 | | TWCX30 | | TWCX36 | | | TWCX48 | | | TWCX60 | | | TWCX72 | | | | | | | | | | |
|---|----------|------|----------|------|----------|------|------|-----------|------|------|-----------|------|------|-----------|------|------|------|------|------|------|------|------|-----|------|
| Capacity (BTU/h) | 24000 | | 30000 | | 36000 | | | 48000 | | | 60000 | | | 72000 | | | | | | | | | | |
| Voltage (V) ⁽²⁾ | 220 | 380 | 230 | 220 | 230 | 220 | 460 | 230 | 380 | 460 | 230 | 220 | 230 | 380 | 460 | 230 | 220 | 230 | 380 | 460 | 380 | | | |
| Cycle (Hz)/Phase (Ph) | 50/1 | 50/3 | 60/3 | 50/1 | 60/1 | 50/1 | 60/3 | 60/1 | 60/3 | 50/3 | 60/3 | 60/1 | 50/1 | 60/3 | 50/3 | 60/1 | 60/3 | 50/3 | 60/1 | 60/3 | 460 | 50/3 | | |
| Full Load Amps (FLA) | 9.5 | 3.5 | 7.2 | 10.3 | 9.1 | 9.6 | 3.9 | 12 | 8.3 | 5.1 | 5.2 | 13.8 | 14.7 | 11.3 | 5.8 | 5.9 | 15.8 | 22.2 | 11.3 | 8.3 | 20.1 | 16.2 | 7.1 | 10.1 |
| Cool (A) | | | | | | | | | | | | | | | | | | | | | | | | |
| Full Load Amps (FLA) Heat (A) | 11.8 | 4.6 | 9.1 | 12 | 13.2 | 12.7 | 5 | 15.7 | 10.9 | 6.6 | 6.6 | 20.2 | 21.4 | 12.7 | 7.6 | 7.4 | 23 | 29.1 | 14.8 | 10.8 | 29.3 | 20.1 | 8.9 | 13.3 |
| Locked Rotor Amps (LRA) (A) | 63 | 45 | 73 | 63 | 96.7 | 63 | 45 | 105 | 95 | 50 | 60 | 150 | 130 | 120 | 70 | 70 | 145 | 130 | 123 | 87 | 145 | 160 | 87 | 100 |
| Max. Circuit Breaker (A) | 45 | 20 | 35 | 45 | 60 | 45 | 20 | 70 | 50 | 27 | 30 | 80 | 90 | 55 | 30 | 33 | 101 | 100 | 60 | 42 | 90 | 81 | 42 | |
| Min. Circuit Ampacity (A) | 28 | 13 | 21 | 28 | 34 | 28 | 13 | 43 | 27 | 15 | 17 | 48 | 50 | 33 | 19 | 19 | 57 | | 34 | 24 | 53 | 45 | 24 | |
| Refrigerant Type | R410A | | R410A | | R410A | | | R410A | | | R410A | | | R410A | | | | | | | | | | |
| Height-Without Elec. Box (in/mm) ⁽³⁾ | 18.6/473 | | 18.6/473 | | 18.6/473 | | | 23.4/595 | | | 23.4/595 | | | 23.4/595 | | | | | | | | | | |
| Height-With Elec. Box (in/mm) ⁽³⁾ | 22.6/575 | | 22.6/575 | | 22.6/575 | | | 23.4/595 | | | 23.4/595 | | | 23.4/595 | | | | | | | | | | |
| Max. Width (in/mm) ⁽³⁾ | 13/331 | | 13/331 | | 13/331 | | | 13.3/338 | | | 13.3/338 | | | 13.3/338 | | | | | | | | | | |
| Depth-Drain Pan (in/mm) ⁽³⁾ | 18/458 | | 18/458 | | 18/458 | | | 18/458 | | | 18/458 | | | 18/458 | | | | | | | | | | |
| Max. Depth (in/mm) ⁽³⁾ | 19.4/493 | | 19.4/493 | | 19.4/493 | | | 23.9/608 | | | 23.9/608 | | | 23.9/608 | | | | | | | | | | |
| Seawater Inlet Connection (in/mm) | 5/8 /16 | | 5/8 /16 | | 5/8 /16 | | | 1 1/4 /32 | | | 1 1/4 /32 | | | 1 1/4 /32 | | | | | | | | | | |
| Chilled Water Inlet Connection (in/mm) | 3/4 /20 | | 3/4 /20 | | 3/4 /20 | | | 1 /26 | | | 1 1/4 /32 | | | 1 1/4 /32 | | | | | | | | | | |
| Chilled Water Outlet Connection (in/mm) | 1 /26 | | 1 /26 | | 1 /26 | | | 1 /26 | | | 1 1/4 /32 | | | 1 1/4 /32 | | | | | | | | | | |
| Chilled Water Connection Type | HB | | HB | | HB | | | FPT | | | FPT | | | FPT | | | | | | | | | | |

¹ Add a 'C' for 230V/60Hz/1-Ph, 'CK' for 220-250V/50Hz/1-Ph, 'DC' for 230V/60Hz/3-Ph, 'ECK' for 380V/50Hz/3-Ph, or 'EC' for 460V/60Hz/3-Ph. For example, TWCX24DC = 230V/60Hz/3-ph unit.
² For information about voltages not shown in this sheet, please contact Dometic Marine sales at 954-973-2477.
³ All dimensions ± 0.30 in. (8 mm).

Dimensions

TWCX 24,000 - 36,000 BTU/h Models

TWCX 48,000 - 72,000 BTU/h Models



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L-2430 Rev. 20160513 Specifications and availability subject to change without notice.



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