

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 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	230	220	230	460	380	230	220	230	460	380	230	220	230	460	380	230		460	380
Cycle (Hz)/Phase (Ph)	50/1	50/3	60/1	50/1	60/3	60/1	50/1	60/3		50/3	60/1	50/1	60/3		50/3	60/1	50/1	60/3		50/3	60/1	60/3		50/3
Full Load Amps (FLA)	9.5	3.5	9.1	10.3	7.2	12	9.6	8.3	3.9	5.1	13.8	14.7	11.3	5.2	5.8	15.8	22.2	11.3	5.9	8.3	20.1	16.2	7.1	10.1
Cool (A)																								
Full Load Amps (FLA)	11.8	4.6	13.2	12	9.1	15.7	12.7	10.9	5	6.6	20.2	21.4	12.7	6.6	7.6	23	29.1	14.8	7.4	10.8	29.3	20.1	8.9	13.3
Heat (A)																								
Locked Rotor Amps (LRA) (A)	63	45	96.7	63	73	105	63	95	45	50	150	130	120	60	70	145	130	123	70	87	145	160	87	100
Max. Circuit Breaker (A)	45	20	60	45	35	70	45	50	20	27	80	90	55	30		101	100	60	33	42	90	81	42	
Min. Circuit Ampacity (A)	28	13	34	28	21	43	28	27	13	15	48	50	33	17	19	57		34	19	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)	3/8 /16		3/8 /16			3/8 /16					1/4 /32					1/4 /32					1/4 /32			
Chilled Water Inlet Connection (in/mm)	3/4 /20		3/4 /20			3/4 /20					1/26					1/4 /32					1/4 /32			
Chilled Water Outlet Connection (in/mm)	1/26		1/26			1/26					1/26					1/4 /32					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.

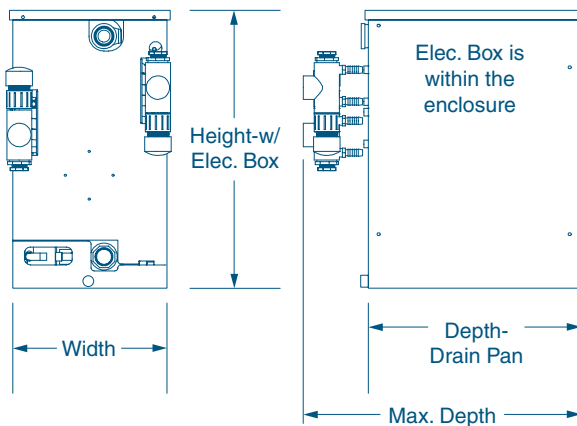
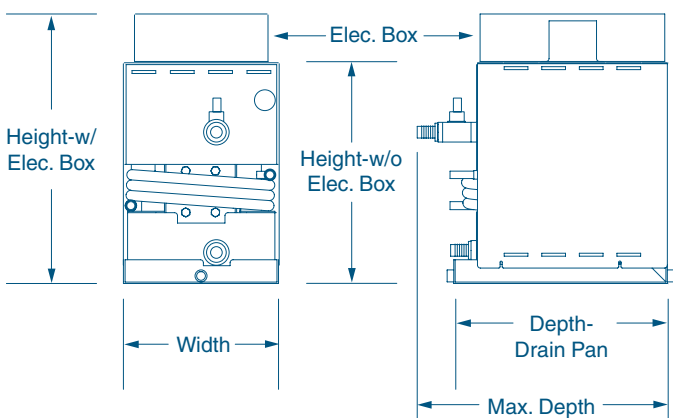
² For information about voltages not shown in this sheet, please contact Dometic Marine sales at 954-973-2477.

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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