

TWCV Series Modular Chillers

Enclosed Modular Chillers with a Compact Footprint



Cruisair's TWC Compact is a high-performance, cost effective tempering unit. The reverse cycle TWC cools and heats, and is available in an expanded product range of 24,000 (2-ton) to 72,000 (6-ton) BTU/hr capacities. The three new models include 48,000 (4-ton), 60,000 (5-ton), and 72,000 (6-ton) BTU/hr units. 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 TWC does not include a chilled water modulating flow control, which means air handlers with or without flow controls can be used.* The brazed platecoil evaporator and coaxial cupronickel seawater condenser allow for superior cooling and heating performance.

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.

All TWC chillers come with R-410A, the preferred environmentally safe refrigerant used in modern, high-efficiency air conditioning systems.

*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.



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

Key Benefits

- 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 (TWCV24 and 36 models)

Specifications for TWCV Series Modular Chillers

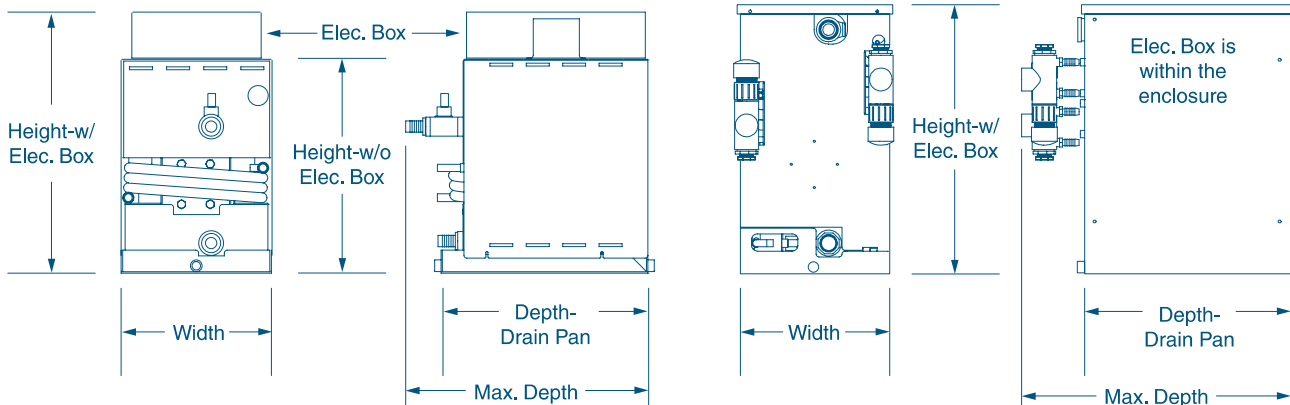
Model ⁽¹⁾	TWCV24		TWCV30			TWCV36					TWCV48					TWCV60					TWCV72				
Capacity (BTU/h)	24000		30000			36000					48000					60000					72000				
Voltage (V) ⁽²⁾	220	380	230	220	230	230	220	230	460	380	230	220	230	460	380	230	220	230	460	380	230	220	230	460	380
Cycle (Hz)/Phase (Ph)	50/1	50/3	60/1	50/1	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		460	380
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) Heat (A)	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	
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)	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 460V/60Hz/3-Ph, or 'EC' for 380V/50Hz/3-Ph. For example, TWCV24DC = 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

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

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



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 For all other areas visit our website to find your nearest distributor.

L-2430 Rev. 20150327 Specifications and availability subject to change without notice.

Dealer

