



# Series E™ CenTraVac™ chiller

Duplex™ chiller (Dual Compressor) model CDHH

1500 to 4000 tons (5300 to 14000 kW) – 50 Hz

1800 to 4000 tons (6300 to 14000 kW) – 60 Hz



## The Evolution Continues...

Trane is proud to introduce the latest addition to the EarthWise™ CenTraVac product portfolio: the Series E chiller. Continuing the Trane commitment to provide the right refrigerant for the right product at the right time, the Series E chiller uses R-1233zd(E), a low pressure, next-generation, low global warming potential (GWP) refrigerant. Building on the CenTraVac legacy, the Series E delivers the same industry-leading reliability and highest efficiencies that customers expect from Trane chillers.

The Series E Duplex chiller leverages a series counterflow design with dual independent refrigerant circuits to deliver the industry's most efficient chillers and to continue the Trane legacy as the global leader in centrifugal chillers. Specifically designed to maximize energy efficiency in large capacity applications such as campuses, district cooling plants and industrial processes, it serves both new and replacement chiller markets. The Duplex chiller also offers energy-saving options like thermal storage and heat pump capabilities up to 140°F (60°C) that are good for the environment and can often pay for themselves through reduced water consumption, reduced heating and ancillary power consumption and lower total operating costs.

## Duplex CenTraVac Chiller Design Advantages

The Series E Duplex centrifugal chiller leverages thermodynamic staging to deliver unmatched efficiency. Duplex designs reduce energy consumption by 13 percent over a single compressor model, and increase energy savings up to 19 percent when paired in a series configuration. Multiple compressors with multiple stages provide unloading stability and efficiency for various ambient applications.

The **direct drive** compressors deliver reliability through simplicity of design and fewer moving parts. They also contribute to the industry-leading efficiency levels by eliminating losses associated with gears, transmissions or shaft seals, while delivering the lowest sound and vibration levels. The **semi-hermetic** motor operates in a cool and clean environment, extending the life of the chiller and eliminating the heat that would otherwise impact the mechanical room. The **multi-stage** compressors enable stable and reliable operation across a wider range of operating conditions, and the **low pressure** design enables a near-zero refrigerant leak rate.

## Next-Generation Refrigerant

Trane has always taken a balanced approach to selecting refrigerants, considering factors such as safety, sustainability, efficiency, sound, reliability and overall lifecycle impact. The selection of low pressure R-1233zd(E) enables Trane to continue this commitment as the industry evolves through its next refrigerant transition, from HCFCs and HFCs to next-generation, low-GWP refrigerants, like R-1233zd(E).

Classified as an "A1" refrigerant per ASHRAE Standard 34, R-1233zd(E) is one of the few non-flammable olefin options available today. It has near-zero global warming potential and enables best-in-class chiller efficiencies. Low pressure refrigerants have been a key element of the Trane centrifugal chiller design since its introduction in 1938, and the Series E CenTraVac chiller continues this tradition with its low pressure, leak-tight design.

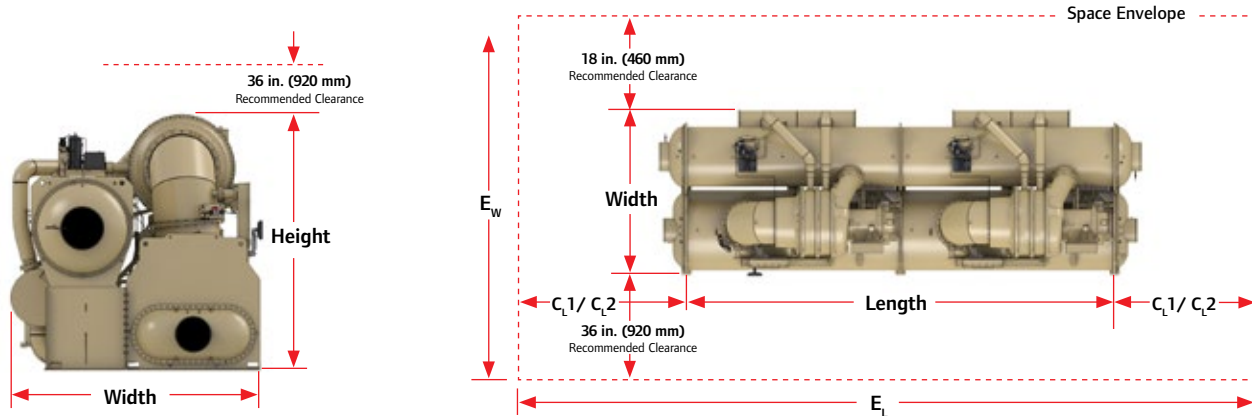
## Product Options

As with all CenTraVac™ chillers, selection options result in a unit built to your specifications. From energy saving options to the enhanced electrical package to a variety of low and medium voltage options, your Trane chiller is customized for your application.

- Low Voltage (<600V) options include unit- and remote-mounted wye delta or solid state starters, or a unit-mounted Adaptive Frequency™ drive.
- Medium Voltage (3.3-6.6kV or 10-11kV) options include unit- and remote-mounted across-the-line, primary reactor or auto transformer starters, or a remote-mounted Adaptive Frequency drive.

## Tracer AdaptiView™ Controls

Providing the intelligence behind CenTraVac chillers, Trane Adaptive Control™ strategies respond to a variety of conditions to maintain efficient chiller plant operation for all applications, with patented control algorithms that maximize performance in variable primary flow systems. The open protocol design works with any building automation system without the need for gateways (BACnet®, Modbus RTU and LonTalk®).



## Series E™ CenTraVac™ chiller, Model CDHH

Units	Comp Size	Shell Configuration EVAP/COND	Space Envelope				Clearance				Base Unit Dimensions					
			Length (E <sub>L</sub> )		Terminal Box Only (E <sub>W</sub> )		Tube Pull				Length		Height		Width	
			in.	mm	in.	mm	C <sub>L1</sub>		C <sub>L2</sub>		in.	mm	in.	mm	in.	mm
CDHH Chiller (60 Hz)	2000/2600	400M/440M	698.0	17729	185.2	4704	318.0	8077	68.0	1727	312.0	7925	137.7	3498	131.2	3332
		440M/440M	706.0	17932	192.1	4878	318.0	8077	76.0	1930	312.0	7925	141.6	3597	138.1	3507
	440X/440X	802.0	20371	192.1	4878	366.0	9296	76.0	1930	360.0	9144	141.6	3597	138.1	3507	
CDHH Chiller (50 Hz)	1750/2250	400M/440M	698.0	17729	185.2	4704	318.0	8077	68.0	1727	312.0	7925	137.7	3498	131.2	3332
		440M/440M	706.0	17932	192.1	4878	318.0	8077	76.0	1930	312.0	7925	141.6	3597	138.1	3507
	3050	440X/440X	802.0	20371	192.1	4878	366.0	9296	76.0	1930	360.0	9144	141.6	3597	138.1	3507

Dimensions do not include waterboxes, hinges, starters or other unit-mounted options that may affect unit size. Contact your Trane representative for more information.

1. C<sub>L1</sub> can be at either end of the machine and is required for tube pull clearance.
2. C<sub>L2</sub> is always at the opposite end of the machine from C<sub>L1</sub> and is required for service clearance.



Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results.