

# Series E<sup>™</sup> CenTraVac<sup>™</sup> chiller

Simplex (Single Compressor) model CVHH 850 to 2000 tons (3000 to 7000 kW) – 50 Hz 900 to 2000 tons (3150 to 7000 kW) – 60 Hz



#### The Evolution Continues...

Trane is proud to introduce the latest addition to the EarthWise<sup>™</sup> 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 industryleading reliability and highest efficiencies that customers expect from Trane chillers.

The Series E leverages the advantages of the traditional CenTraVac chiller design to deliver the efficiency and rapid restart capabilities that make Trane the global leader in centrifugal chillers. Designed for both new and replacement chiller markets, it also offers energy-saving options like integrated full or partial heat recovery, heat pump capabilities up to 140°F (60°C), thermal storage down to 18°F (-7.8°C) and integrated free cooling. These options 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.

## CenTraVac Chiller Design Advantages

The **direct drive** compressor delivers unmatched reliability through simplicity of design and fewer moving parts. It also contributes to 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** compressor enables 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 since 1938, and the Series E CenTraVac chiller continues this tradition with its low pressure, leak-tight design.

### **Product Options**

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

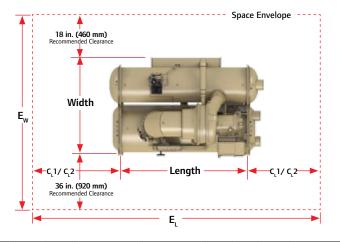
- Low Voltage (<600V) options include unit- and remote-mounted wye delta or solid state starters, or a unit-mounted Adaptive Frequency<sup>™</sup> drive.
- Medium Voltage (3.3-6.6kV or 10-11kV) options include unit- and remote-mounted across-the-line, primary reactor or auto transformer starters, or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



#### Series E<sup>™</sup> CenTraVac<sup>™</sup> chiller, Model CVHH

#### Tracer AdaptiView<sup>™</sup> Controls

Providing the intelligence behind CenTraVac chillers, Trane Adaptive Control<sup>™</sup> 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<sup>®</sup>, Modbus RTU and LonTalk<sup>®</sup>).



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> )		C <sub>L</sub> 1 <sup>Tube Pull</sup> C <sub>L</sub> 2			<b>2</b>	Length		Height		Width	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
CVHH Chiller (60 Hz)	900/1000/1200	100M/100M	373.0	9474	176.0	4470	166	4216	47.0	1194	160.0	4064	121.2	3078	122.0	3099
		100L/100L	413.5	10503	176.0	4470	186	4731	47.0	1194	180.3	4578	121.2	3078	122.0	3099
		130M/130M	373.0	9474	178.0	4521	166	4216	47.0	1194	160.0	4064	127.9	3248	124.0	3150
		160M/200M	373.0	9474	180.1	4575	166	4216	47.0	1194	160.0	4064	135.4	3439	126.1	3203
		200L/220L	413.5	10503	185.2	4704	186	4731	47.0	1194	180.3	4578	137.7	3498	131.2	3332
		220L/220L	413.5	10503	192.1	4878	186	4731	47.0	1194	180.3	4578	141.6	3597	138.1	3507
	1500/1700	200L/200L	413.5	10503	181.1	4600	186	4731	47.0	1194	180.3	4578	137.7	3498	127.1	3228
		220L/220L	413.5	10503	192.1	4878	186	4731	47.0	1194	180.3	4578	141.6	3597	138.1	3507
CVHH Heat Recovery Chiller (60 Hz)	900/1000/1200	100M/10HM	373.0	9474	191.8	4872	166	4216	47.0	1194	160.0	4064	121.2	3078	137.8	3500
		130M/13HM	373.0	9474	194.0	4928	166	4216	47.0	1194	160.0	4064	127.9	3248	140.0	3556
		160M/20HM	373.0	9474	200.7	5097	166	4216	47.0	1194	160.0	4064	135.4	3439	146.7	3725
	1500/1700	200L/20HL	413.5	10503	200.3	5177	186	4731	47.0	1194	180.3	4578	137.7	3498	149.8	3805
		220L/22HL	413.5	10503	222.0	5639	186	4731	47.0	1194	180.3	4578	141.6	3597	168.0	4267
CVHH Chiller (50 Hz)	950/1050	100M/100M	373.0	9474	176.0	4470	166	4216	47.0	1194	160.0	4064	121.2	3078	122.0	3099
		100L/100L	413.5	10503	176.0	4470	186	4731	47.0	1194	180.3	4578	121.2	3078	122.0	3099
		130M/130M	373.0	9474	178.1	4524	166	4216	47.0	1194	160.0	4064	127.9	3248	124.1	3152
		160M/200M	373.0	9474	180.1	4575	166	4216	47.0	1194	160.0	4064	135.4	3439	126.1	3203
		200L/220L	413.5	10503	185.2	4704	186	4731	47.0	1194	180.3	4578	137.7	3498	131.2	3332
		220L/220L	413.5	10503	192.1	4878	186	4731	47.0	1194	180.3	4578	141.6	3597	138.1	3507
	1550	200L/200L	413.5	10503	181.1	4600	186	4731	47.0	1194	180.3	4578	137.7	3498	127.1	3228
		220L/220L	413.5	10503	192.1	4878	186	4731	47.0	1194	180.3	4578	141.6	3597	138.1	3507
CVHH Heat Recovery Chiller (50 Hz)	950/1050	100M/10HM	373.0	9474	191.8	4872	166	4216	47.0	1194	160.0	4064	121.2	3078	137.8	3500
		130M/13HM	373.0	9474	194.0	4928	166	4216	47.0	1194	160.0	4064	127.9	3248	140.0	3556
		160M/20HM	373.0	9474	200.7	5097	166	4216	47.0	1194	160.0	4064	135.4	3439	146.7	3725
	1550	200L/20HL	413.5	10503	203.8	5177	186	4731	47.0	1194	180.3	4578	137.7	3498	149.8	3805
		220L/22HL	413.5	10503	225.5	5728	186	4731	47.0	1194	180.3	4578	141.6	3597	171.5	4356

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, 1 can be at either end of the machine and is required for tube pull clearance.

2.  $C_12$  is always at the opposite end of the machine from  $C_11$  and is required for service clearance.

Ingersoll Rand

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<sup>®</sup>, Ingersoll Rand<sup>®</sup>, Thermo King<sup>®</sup> and Trane<sup>®</sup>—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.