

- **Model with External Circulation Pump Included:**
CAH050CE
- **Model without External Circulation Pump Included:**
CAH050E

Works with the Following Rinnai Products:

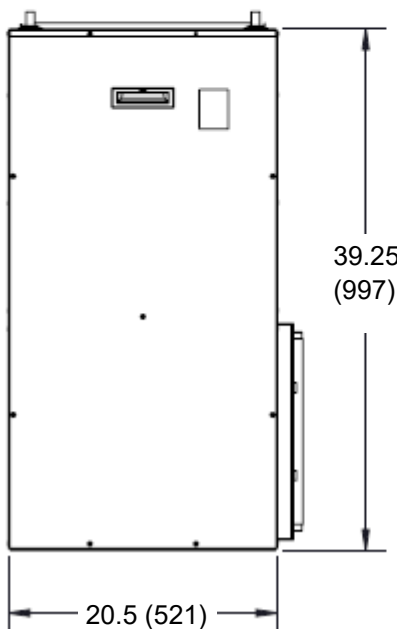
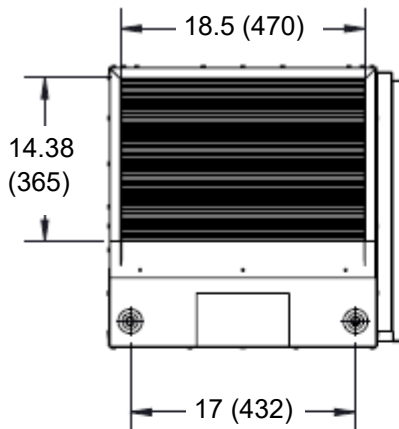
- **Rinnai Tankless Water Heaters:**
 - SENSEI™ SE+ Series (RU Condensing Models)

Tankless water heaters must have a minimum input rate of 160,000 Btu/hr.
- **Rinnai Boilers:**
 - I-Series (Condensing) Combi Models

The output of the boiler must exceed the capacity of the air handler in use (the boiler Btu/hr rating must be greater than the air handler Btu/hr rating).

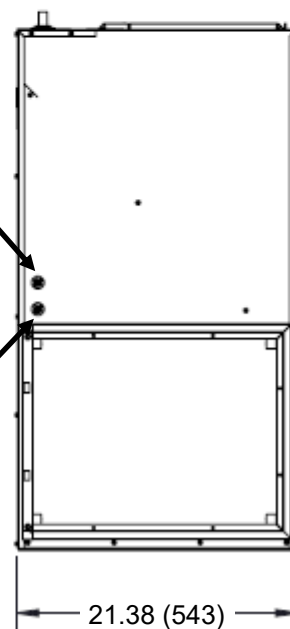
DIMENSIONS

Measurements: in. (mm)



24V Thermostat Cable Knockout Access Port (available on left or right side)

120V Power Supply Knockout Access Port (available on left or right side)



Configurations

- Vertical: Upflow with bottom, back, or side (left or right side) return
- Horizontal: Upflow with bottom, back, or side (left or right side) return

Accessory

Domestic Priority Switch
(Part #: REU-OPU3)



TECHNICAL SPECIFICATIONS

Model	CAH050E	CAH050CE
Appliance Type	Hydronic Air Handler (without circulation pump)	Hydronic Air Handler (with external circulation pump)
Installation Type	Indoor	
Suitable for Potable Water Systems	Yes	
Configurations	Multi-position	
Circulation Pump Included	No	Yes
Product Weight - lbs (kg) approximate	100 (45.5), Shipped: 120 (54.5)	105 (47.6), Shipped: 125 (56.7)
Construction	Cabinet: 22 Gauge powder coated steel Inner panels: 22 Gauge galvanized steel Insulation: 1/2 in. inside blower compartment and door	
Nominal CFM (Cubic Feet/Minute)	1600 up to 0.7 in. W.C., 1200 up to 1.2 in. W.C.	
Nominal Output Btu/hr at 140°F ¹	50,000	
Nominal Cooling Capacity	1-4 Tons	
Rated Voltage	120 V, 60 Hz, 1Ph Motor: -9.6A FLA, Pump 3A max 15A MOA, 20A MOP	
Blower Motor Type	ECM fully variable	
Coil Material	Copper Coil, Aluminum Fins	
Blower Motor Horsepower (HP)	3/4	
Water Connection	1/2 in. Sweat	
Control Board	<ul style="list-style-type: none"> • Factory Installed • Thermostat connections • 5-second time delay for blower activation for heating • Pump timer circulates water for one minute every 24 hours to prevent stagnation of water in the system (default) 	
P9-11 Energy Efficiency Rating (TPF)	0.88 with RU160i tankless water heater	
Certifications	CSA 22.2 No 236, UL-1995, NSF 372 (Hydronic coil)	

¹ Refer to the tables in sections 3.8.4 and 3.8.5 of the Canadian Air Handler Installation and Operation Manual for specific BTU output. Rinnai products are continually being updated and improved; therefore, specifications are subject to change without prior notice.

WATER HEATING CAPACITY

Engine	Entering Water Temperature (°F)	50% (800CFM)	75% (1200 CFM)	100% (1600 CFM)
Sensei	120	26,600	34,700	41,400
I-Series		28,500	38,400	44,600
Sensei	140	37,500	49,100	57,400
I-Series		39,100	54,900	64,100
Sensei	160	47,600	61,600	72,400
I-Series		52,000	67,500	81,700

Flow (GPM)	Maximum Equivalent Piping Distance (ft)	
	Sensei	I-Series
2	200	200
3	150	150

With 20 ft or less equivalent piping

Coil Entering Water Temperature (°F)	Flow Rate (GPM)	Heat Fan Ratio (Air Flow)						Coil Pressure Drop (PSI)
		50% (800CFM)	Temperature Differential (°F)	75% (1200 CFM)	Temperature Differential (°F)	100% (1600 CFM)	Temperature Differential (°F)	
120	2	23,100	27	27,700	21	35,400	21	1.42
	3	26,000	30	33,600	26	40,300	23	2.36
	4	28,000	32	37,500	29	43,900	25	4.38
140	2	33,700	39	42,000	32	47,500	28	1.41
	3	37,300	43	48,300	37	56,500	33	2.34
	4	38,400	44	54,000	42	62,700	36	4.38
160	2	43,100	50	54,800	42	62,600	36	1.41
	3	48,000	56	62,100	48	73,100	42	2.34
	4	51,200	59	66,200	51	80,000	46	4.38

Values shown in following tables may vary depending on the static pressure of the duct system.