

- **Models with Internal Circulation Pump:**
AH083CP, AH084CP, AH125CP, AH166CP, AH206CP
- **Models without Internal Circulation Pump:**
AH083P, AH084P, AH125P, AH166P, AH206P

Works with the Following Rinnai Products:

• **Rinnai Tankless Water Heaters:**

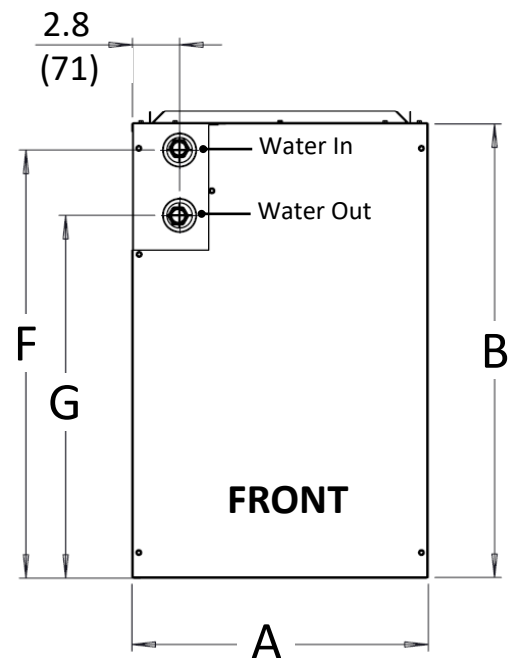
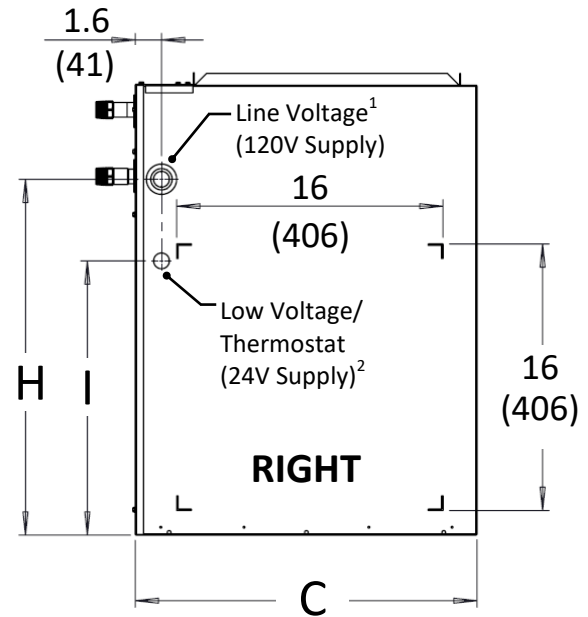
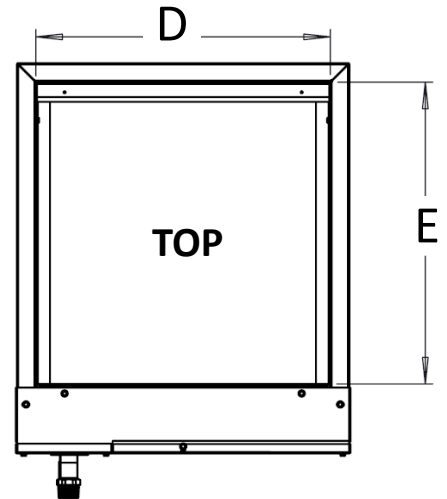
- SENSEI™ SE+ Series (RU Condensing Models)
- HE+ Series (RL Non-Condensing Models)
- HE Series (V Non-Condensing Models)

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).

- Configurations**
- Vertical: Upflow with bottom or side (left or right side) return
 - Horizontal: Upflow with bottom return



Dimensions

Reference images on right

Air Handler Models					
	AH083CP AH083P	AH084CP AH084P	AH125CP AH125P	AH166CP AH166P	AH206CP AH206P
A		17.5 (445)		21.0 (533)	24.5 (622)
B		27.0 (686)		28.0 (711)	28.0 (711)
C		20.5 (521)		20.5 (521)	20.5 (521)
D		15.5 (394)		19.0 (483)	22.5 (572)
E		16.0 (406)		16.0 (406)	16.0 (406)
F		25.4 (645)		26.4 (671)	26.4 (671)
G		21.5 (546)		22.5 (572)	22.5 (572)
H		21.4 (544)		22.4 (569)	21.4 (543)
I		16.5 (419)		17.5 (445)	17.5 (445)

Measurements: in. (mm)

¹ Line Voltage knockout is located at the specified height on the cabinet *right* side panel for models: AH083P/CP, AH084P/CP, AH125P/CP, AH166P/CP
Line Voltage knockout is located at the specified height on the cabinet *left* side panel for models: AH206P/CP

² Low Voltage/Thermostat knockouts are also available at same location on cabinet left side.

Technical Specifications

Air Handler *with* Internal Circulation Pump For Use with Rinnai Tankless Water Heaters

	AH083CP	AH084CP	AH125CP	AH166CP	AH206CP
Installation	Indoor (approved for manufactured housing and mobile homes)				
Suitable for Potable Water Systems	Yes				
Configurations	<ul style="list-style-type: none"> Vertical: Upflow with bottom or side (left or right side) return Horizontal: Upflow with bottom return 				
Circulation Pump Included	Yes (Factory Installed)				
Product Weight - lb. (kg) (approximate)	66 (30)	66 (30)	66 (30)	71 (32)	83 (38)
Cabinet Construction	Embossed cabinet in heavy gauge galvanized steel to prevent corrosion. Cabinet lined with 5/8 in. foil faced insulation.				
Nominal CFM (Cubic Feet/Minute)	800	800	1,200	1,600	2,000
Nominal Output Btu/hr at 140°F ¹	30,000	40,000	50,000	60,000	60,000
Rated Voltage	120 V, 60 Hz, 1 Ph				
Transformer Size and Type	40 VA, Class 2				
Blower Wheel (Diameter x Width)	9x6 in.	9x6 in.	10x8 in.	10x8 in.	10x10 in.
Blower Motor Type	3-Speed PSC				
Blower Motor Hot Water Coil Rows	3	4			3
Blower Motor Coil Material	Copper Coil, UV Resistant Pan				
Blower Motor Horsepower (HP)	1/3	1/3	1/2	3/4	3/4
Blower Full Load Amps (FLA)	5.3	5.3	7.1	7.5	10.5
Water Connection	3/4 in. Sweat				
Pump Voltage, Amps	120 V, 1.4 Amps				
Control Board	Factory Installed. Freeze protection activates at 40°F and deactivates at 70°F. Thermostat connections. 60-second time delay for blower activation. Pump timer circulates water for one minute every six hours to prevent stagnation of water in the system. Boiler activation dry contact. 24V AC isolation valve control.				
Certifications	ETL Listed				

Air Handler *without* Internal Circulation Pump For Use with Rinnai I-Series Combi Boilers

	AH083P	AH084P	AH125P	AH166P	AH206P
Installation	Indoor (approved for manufactured housing and mobile homes)				
Suitable for Potable Water Systems	Yes				
Configurations	<ul style="list-style-type: none"> Vertical: Upflow with bottom or side (left or right side) return Horizontal: Upflow with bottom return 				
Circulation Pump Included	No				
Product Weight - lb. (kg) (approximate)	57 (26)	57 (26)	57 (26)	62 (28)	74 (34)
Cabinet Construction	Embossed cabinet in heavy gauge galvanized steel to prevent corrosion. Cabinet lined with 5/8 in. foil faced insulation.				
Nominal CFM (Cubic Feet/Minute)	800	800	1,200	1,600	2,000
Nominal Output Btu/hr at 140°F ¹	30,000	40,000	50,000	60,000	60,000
Rated Voltage	120 V, 60 Hz, 1 Ph				
Transformer Size and Type	40 VA, Class 2				
Blower Wheel (Diameter x Width)	9x6 in.	9x6 in.	10x8 in.	10x8 in.	10x10 in.
Blower Motor Type	3-Speed PSC				
Blower Motor Hot Water Coil Rows	3	4			3
Coil Material	Copper Coil, UV Resistant Pan				
Blower Motor Horsepower (HP)	1/3	1/3	1/2	3/4	3/4
Blower Full Load Amps (FLA)	5.3	5.3	7.1	7.5	10.5
Water Connection	3/4 in. Sweat				
Control Board	Factory Installed. Freeze protection activates at 40°F and deactivates at 70°F. Thermostat connections. 60-second time delay for blower activation. Boiler activation dry contact. 24V AC isolation valve control.				
Certifications	ETL Listed				

Water Heating Capacity

Air Handler *with* Internal Circulation Pump

For Use with Rinnai Tankless Water Heaters

SENSEI™ SE+ Series (RU Condensing)

Air Handler Model	Entering Water Temp	Blower Speed (Btu/hr)		
		Low	Medium	High
AH083CP	120°F	21,000	23,000	24,000
	140°F*	29,000	31,000*	34,000
	160°F	37,000	40,000	43,000
AH084CP	120°F	22,000	25,000	27,000
	140°F*	31,000	35,000*	38,000
	160°F	40,000	44,000	47,000
AH125CP	120°F	31,000	33,000	34,000
	140°F*	43,000	45,000*	47,000
	160°F	55,000	58,000	61,000
AH166CP	120°F	40,000	41,000	42,000
	140°F*	55,000	57,000	58,000*
	160°F	70,000	73,000	75,000
AH206CP	120°F	40,000	41,000	41,000
	140°F*	55,000	56,000	57,000*
	160°F	70,000	71,000	72,000

Tankless water heaters must have a minimum input rate of 160,000 Btu/hr.

HE+ Series (RL Non-Condensing) and HE Series (V Non-Condensing)

Air Handler Model	Entering Water Temp	Blower Speed (Btu/hr)		
		Low	Medium	High
AH083CP	120°F	21,000	23,000	25,000
	140°F*	29,000	32,000*	34,000
	160°F	38,000	41,000	45,000
AH084CP	120°F	23,000	26,000	28,000
	140°F*	32,000	35,000*	39,000
	160°F	41,000	45,000	49,000
AH125CP	120°F	32,000	34,000	35,000
	140°F*	44,000	46,000*	49,000
	160°F	57,000	60,000	63,000
AH166CP	120°F	42,000	43,000	44,000
	140°F*	57,000	59,000	61,000*
	160°F	74,000	76,000	79,000
AH206CP	120°F	41,000	42,000	43,000
	140°F*	56,000	57,000	58,000*
	160°F	73,000	74,000	76,000

* Bold text is default setting.

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Air Handler *without* Internal Circulation Pump

For Use with Rinnai I-Series Combi Boilers

I-Series Boiler Models: i060C, i090C

Air Handler Model	Entering Water Temp	Blower Speed (Btu/hr)		
		Low	Medium	High
AH083P	120°F	21,000	23,000	25,000
	140°F*	29,000	32,000*	35,000
	160°F	38,000	42,000	45,000
AH084P	120°F	23,000	25,000	27,000
	140°F*	32,000	35,000*	38,000
	160°F	41,000	46,000	50,000
AH125P	120°F	32,000	33,000	35,000
	140°F*	44,000	47,000*	49,000
	160°F	57,000	60,000	63,000
AH166P	120°F	41,000	42,000	44,000
	140°F*	58,000	60,000	62,000*
	160°F	75,000	78,000	80,000
AH206P	120°F	41,000	42,000	43,000
	140°F*	58,000	60,000	61,000*
	160°F	75,000	77,000	78,000

* Bold text is default setting.

I-Series Boiler Model: i120C

Air Handler Model	Entering Water Temp	Blower Speed (Btu/hr)		
		Low	Medium	High
AH083P	120°F	21,000	23,000	25,000
	140°F*	29,000	32,000*	35,000
	160°F	38,000	41,000	45,000
AH084P	120°F	23,000	25,000	27,000
	140°F*	32,000	35,000*	39,000
	160°F	41,000	46,000	50,000
AH125P	120°F	32,000	34,000	35,000
	140°F*	45,000	47,000*	50,000
	160°F	58,000	61,000	64,000
AH166P	120°F	41,000	43,000	44,000
	140°F*	58,000	60,000	62,000*
	160°F	75,000	78,000	80,000
AH206P	120°F	41,000	42,000	43,000
	140°F*	58,000	60,000	61,000*
	160°F	76,000	77,000	79,000

* Bold text is default setting.

- All capacities are based on 70°F entering air temperature.
- For entering air temperatures other than 70°F, use the following capacity correction factors: (72°F x .982), (68°F x 1.02), (66°F x 1.04)
- Glycol correction factors: (10% X .98), (20% X .95), (30% X .92), (40% X .88)
- Refer to the "Approved Cleaners, Inhibitors and Antifreezes" section (in the Appendix of the "I-Series Condensing Combi Boiler Installation and Operation Manual") for a complete list of approved glycols.

Blower Performance Data

3-Speed PSC Motor Speed Table

Air Handler Models	Speed	Air Flow (CFM) vs External Static Pressure (WC)				
		0.1	0.2	0.3	0.4	0.5
AH083P AH083CP	Low	749	705	658	614	558
	Med ¹	865	815	760	708	646
	High	904	836	801	740	681
AH084P AH084CP	Low	749	705	658	614	558
	Med ¹	865	815	760	708	646
	High	904	836	801	740	681
AH125P AH125CP	Low	1198	1144	1086	1018	962
	Med ¹	1257	1198	1130	1072	1010
	High	1273	1215	1158	1094	1018
AH166P AH166CP	Low	1576	1514	1433	1338	1264
	Med	1643	1576	1490	1407	1320
	High ¹	1707	1606	1545	1441	1364
AH206P AH206CP	Low	1759	1691	1652	1580	1512
	Med	1838	1788	1729	1644	1555
	High ¹	1928	1867	1810	1729	1637

¹ Factory default setting for both heating and cooling.

- Results are obtained while air handler is operating with a dry DX coil and air filter installed.
- Values are nominal and blower performance can vary higher or lower from these values based on the evaporator coil that is used. Hot water heat air flow performance data includes associated air pressure drop across a four-row hot water coil for models AH084P/CP, AH125P/CP, and AH166P/CP, and air pressure drop across a three-row hot water coil for models AH083P/CP and AH206P/CP.

Accessories

Accessory	Part #
Universal Air Handler Rack Assembly	AHRACK-1
Domestic Priority Switch	REU-OPU3
Pipe Cover Enclosure:	
• Pipe cover for HE+ Series (RL Non-Condensing) Tankless Water Heater Models	PCD03-SM2
• Pipe cover for SENSEI™ SE+ Series (RU Condensing) Tankless Water Heater Models and I-Series (Condensing) Combi Boiler Models	PCD07-SM
• Pipe cover for HE Series (V Non-Condensing) Tankless Water Heater Models	PCD03-EWV
24V NC Brass Solenoid Valve (3/4 in. NPT)	607000018
Heat Pump (HP) Lockout Kit	605000032

Rinnai products are continually being updated and improved; therefore, specifications are subject to change without prior notice.