

ICC-ES Report

PMG-1088

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Reissued 04/2018
This report is subject to renewal 04/2019

EVALUATION SUBJECT:

RINNAI DIRECT-VENT WALL FURNACES

DIVISION:

23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)

SECTION:

23 81 03—UNITARY HVAC EQUIPMENT ACCESSORIES

Report Holder:

RINNAI AMERICA CORPORATION

103 INTERNATIONAL DRIVE
PEACHTREE CITY, GA 30269

Look for the ICC-ES marks of Conformity!



ICC-ES PMG Product Certificate

PMG-1088

Effective Date: April 2018

This listing is subject to re-examination in one year.



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CSI: DIVISION: 23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)
Section: 23 81 03—Unitary HVAC Equipment Accessories

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Rinnai Direct-Vent Wall Furnaces
(Models listed below)

Listee: Rinnai America Corporation
103 International Drive
Peachtree City, Georgia 30269
www.rinnai.us

Compliance with the following code sections:

2018, 2015, 2012 and 2009 *International Mechanical Code*® (IMC) Section 909 – Vented Wall Furnaces
2018, 2015, 2012 and 2009 *International Residential Code*® (IRC) Section R303.9 – Required Heating
2018, 2015, 2012 and 2009 *International Energy Conservation Code* (IECC) Section R403.1.1 – Programmable Thermostat
2015, 2012 and 2009 *IAPMO Uniform Mechanical Code*® (UMC)* Section 928 – Wall Furnaces
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Compliance with the following standards:

ANSI Z21.86-2016/CSA 2.32-2016, Vented Gas-Fired Space Heating Appliances

Identification:

Each Rinnai Direct-Vent Wall Furnace bears a label displaying the name of the report holder (Rinnai America), the date of manufacture, the CSA Mark (showing compliance to ANSI Z21.86) and the ICC-ES PMG listing mark.

Installation:

Each Rinnai Direct-Vent Wall Furnace must be installed in accordance with the International Fuel Gas Code, Section 909 of the IMC, Section 928 of the UMC and the manufacturer's installation instructions.

Rinnai Direct-Vent Wall Furnaces are not intended to be built into the walls of a building structure, but they are permanently installed using a bracket attached to the wall. They typically provide heat to

individual or adjoining rooms. Rinnai Direct-Vent Wall Furnaces are direct vent appliances, which draw combustion air into the heat exchanger and discharge products of combustion directly to the outdoors through manufacturer supplied ducts. Venting and combustion air kits provided by the manufacturer must be installed with each unit.

Each recognized unit satisfies Section R403.1.1 of the IECC which requires a programmable thermostat including a set-back feature.

Each recognized unit satisfies Section R303.9 of the IRC which requires heating. Selection of the proper size units should be in accordance with ACCA Manual S based on building HVAC loads calculated in accordance with ACCA Manual J or other approved calculation methods.

Units require clearances to combustible materials as noted in Table 1.

Selection of the proper vent kit is based on the wall thickness (inches): 3 – 4¹/₂ Kit S; 4¹/₂ – 9¹/₂ Kit A; 9¹/₂ – 15³/₄ Kit B; 15³/₄ – 23⁵/₈ Kit C; 23⁵/₈ – 31¹/₂ Kit D. Clearances for the vent termination must be in accordance with the manufacturer’s installation instructions and Table 2. Rinnai Direct-Vent Wall Furnace models are recognized in Table 2.

Conditions of Listing:

1. Unit clearances to combustible materials must be in accordance with Table 1 and the installation instructions.
2. Minimum wall thickness for use with vent kits is 3 inches; the maximum is 31¹/₂ inches.
3. Clearances to access the appliance during servicing are 2 inches (50 mm) from each side, 40 inches from the front, and 9 inches from the top.
4. These units are not to be built in.
5. Units must be installed with a shutoff valve in the same room, upstream of the union or connector and within 6 feet of the appliance.
6. Units are manufactured in Seto, Aichi, Japan 489-0071 (city, state, country) under quality control programs with annual inspections by ICC-ES.

TABLE 1—MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS (inches¹)

MODEL #	SIDE	FRONT	TOP ²	FLOOR	BACK
RHFE-202FTA2	2	40	0	0	0
RHFE-265FTA2	2	40	0	0	0
RHFE-434FTA2	2	40	0	0	0
RHFE-559FTA2	2	40	0	0	0
RHFE-1005FTA2	2	40	0	0	0

¹For SI: 1 inch = 25.4 mm

²Service requires 9 inches minimum clearance from the top of the appliance (to remove filter for cleaning).

TABLE 2—RECOGNIZED MODELS AND VENT CLEARANCES

MODEL NUMBER	TRADE NAME	MAXIMUM INPUT RATE	MINIMUM DISTANCE FROM AIR INTAKE OPENINGS (excluding the unit itself)	MINIMUM VERTICAL CLEARANCE TO BOTTOM OF VENT TERMINAL AND THE AIR INTAKE FROM FINISHED GRADE
RHFE-202FTA2	EX08CT	8,000 Btuh for Natural and LP	6 inches	12 inches
RHFE-265FTA2	EX11CT	11,000 Btuh for Natural and LP	9 inches	
RHFE-434FTA2	EX17CT	16,700 Btuh for Natural and LP	9 inches	
RHFE-559FTA2	EX22CT	21,500 Btuh for Natural 20,700 Btuh for LP	9 inches	
RHFE-1005FTA2	EX38CT	38,400 Btuh for Natural 36,500 for LP	9 inches	

¹For SI: 1 inch = 25.4 mm