## Rinnai.

## ES38 (RHFE-1004RFA)

Type of Appliance	Direct vent wall furnace suitable for homes, apartments, and condominiums; modular/mobile home approved; forced combustion, forced convection		
Rinnai Model Number	RHFE-1004RFA-N (Natural gas)	RHFE-1004RFA-P (Propane)	
Gas Rate Input (BTU/hour)	Low - 10,500 High - 38,400	Low - 10,500 High - 36,500	
Gas Rate Output (BTU/hour)	Low - 8,400 High - 30,720	Low - 8,400 High - 29,200	
AFUE Rating	80.6%	82.0%	
Minimum Gas Supply Pressure	5 in (127 mm) W.C.	11 in (279 mm) W.C.	
Maximum Gas Supply Pressure	10.5 in (267 mm) W.C	13 in (330 mm) W.C.	
Electrical Connection	AC 120V, 60 Hz, 121 watts		
Gas Connection	1/2 inch FNPT		
Combustion System	Stainless steel inshot burners		
Ignition System	Direct spark		
Temperature Settings	Low (LO): minimum combustion 60° - 80° F in 2° increments High (HI): maximum combustion		
Temperature Control	<ul> <li>Electronic thermostat</li> <li>Temperature limiting program to comply with Inside Design Temperature limits</li> </ul>		
Humidifier Tray	Enameled tray with capacity of 7 pints (3 liters)		
Weight	Approximately 90 lbs (41 kg)		
Clearance from Combustibles	Side: 2 inches (50 mm) Front: 40 inches (1 m)	Top: 10 inches (250 mm)	
Noise Level	37 - 47 dB(A)		
Warm Air Outlet	Bottom front louvers		

## FEATURES

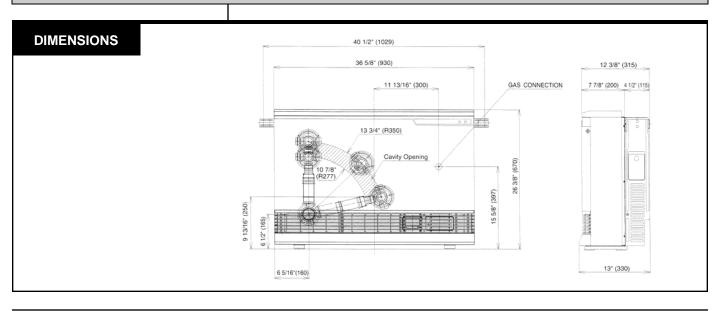
Seven-stage modulating gas valve:	provides precise gas flow by operating from one to seven stages	
Negative coefficient thermistor:	detects temperature change in 1/2 of a degree	
Variable speed inducer motor with pressure switch:	monitors and controls combustion fan and allows the appliance to overcome winds of up to 40 mph	
Quiet operation:	reduces noise through use of swept blades in convection fan; and through the design of the combustion chamber and heat exchanger which silently expand or contract due to temperature changes	
Self diagnostic electronics:	continually monitors functions; provides auto shutdown codes; indicates when air filter needs cleaning	



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Safety Devices	<ul> <li>Flame rod detects flame failure; results in auto shutdown to prevent escape of gas</li> <li>Bi-metal switch, thermal fuse, and thermistor detect overheat condition; results in auto shutdown</li> </ul>			
	5 amp fuse protects against power surge; results in auto shutdown			
	<ul> <li>Abnormal spark at time of ignition results in auto shutdown</li> </ul>			
	Combustion fan purges any gas from the combustion chamber before ignition			
	• Convection fan continues to run after burner shutdown to cool internal parts			
	Function lock prevents inadvertent operation			
	<ul> <li>Appliance shuts down if room reaches 104° F (40° C)</li> </ul>			
Venting	concentric; 3 1/8 inch (80 mm) wall hole			
Maximum Vent Length	13 feet (4 m) with a maximum of 2 bends; maximum 8 feet (2.4 m) vertically			
Wall Thickness and Flue Manifold Kits (the "A" vent kit is included with the appliance)	Name	Kit No.	fits walls	
	S Vent Kit	FOT-150	3 - 4 1/2 in (75 - 115 mm)	
	A Vent Kit	FOT-151	4 1/2 - 9 1/2 in (115 - 240 mm)	
	B Vent Kit	FOT-152	9 1/2 - 15 3/4 in (240 - 400mm)	
	C Vent Kit	FOT-153	15 3/4 - 23 5/8 in (400 - 600 mm)	
	D Vent Kit	FOT-154	23 5/8 - 31 1/2 in (600 - 800 mm)	
Warranty	Labor: 2 years; P prorated	arts: 5 years; ⊦	leat Exchanger: 10 years with years 6-10	

Rinnai is continually updating and improving products; therefore, specifications are subject to change without prior notice. Local, state, provincial and federal codes must be adhered to prior to installation.



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