

# Olsen

## PREMIUM OIL Furnaces



LOWBOY SERIES



UNIVERSAL SERIES

### FEATURING

- ✓ Variable Speed Option
- ✓ Up to 87.5% Efficiency
- ✓ Optional Cooling Up to 4 Tons
- ✓ High-Grade Stainless Steel Heat Exchanger

[olsenhvac.com](http://olsenhvac.com)

Proudly Built in the USA

PN 240012480 Rev. [11/5/2018]

# Olsen Provides **Premium Solutions** In **Oil Heating Comfort** For Your Family.

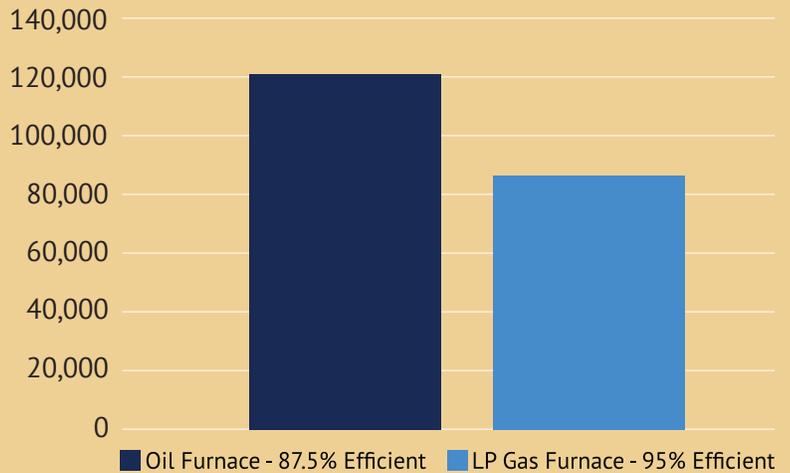
## Why Choose Olsen?

You want your home to be comfortable, but you also need to be mindful of annual fuel costs, maintenance and dependability. So where do you turn? Olsen oil furnaces have been reliably heating homes for generations. If you want to get the most out of your next heating system, Olsen has the optimal oil furnace solution – like our new UML and LRF series furnaces. These innovative products feature ENERGY STAR® models that can achieve efficiencies up to 87.5% AFUE. Installing a higher-AFUE Olsen furnace provides more heat for every dollar spent and may also qualify for energy-efficiency rebates or incentives.

### Did You Know?

Fuel oil has 138,500 BTUs of energy in every gallon. Propane has only 91,333 BTUs. So for every gallon of fuel oil you get approximately 52% more fuel energy to convert to heat for your home. Another factor to consider is the cost of the fuels. Over the past decade fuel oil continues to be the most cost effective choice in the Northeast.

### Oil Supplies More Heat Per Gallon of Fuel



“ *Compact and efficient. That’s what we wanted. Our old furnace was very old and needed replacement. Our new Olsen furnace has been very reliable.* Tim ~ Erie, PA ”

## We’ve Got You Covered

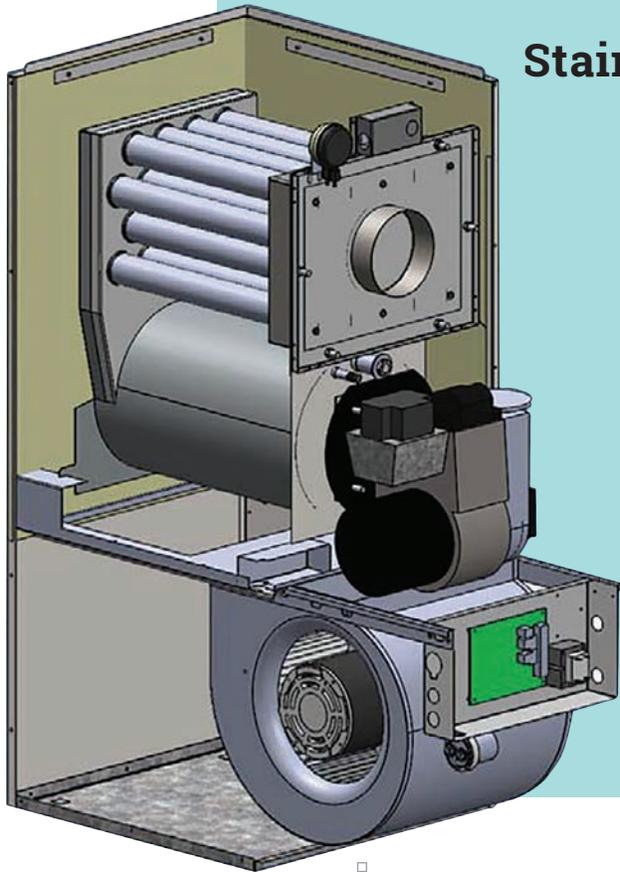
We stand behind every Olsen product we engineer and build with a

**Limited Lifetime Heat Exchanger Warranty and a 5 year parts warranty.**

## Proudly Built In The US!

Manufactured in our Dunkirk, New York facility, each Olsen furnace is assembled to our high-quality standards and tested prior to shipping.

# Olsen Furnaces – Exceptional Features



## Stainless Steel, High-Efficiency Heat Exchanger

### Olsen's Latest Innovation!

Our multi-pass design consists of a primary heat exchanger that utilizes a high-grade 409 stainless steel drum to withstand extreme temperatures and corrosive conditions. Additional passes are constructed of aluminized steel tubes with stainless steel turbulators, which increase surface area, resulting in maximum efficiency levels and reduced operating costs.

(Shown on Universal Series Model)

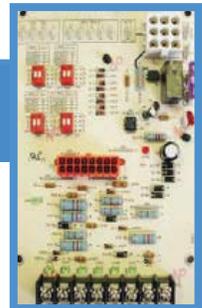
### ECM BLOWER MOTOR



The variable speed technology of an ECM, Electronically Commutated Motor, increases comfort and reduces operating noise by quietly ramping the blower fan up and down, providing a more consistent heat in the living space. The high-efficiency blower reduces electrical consumption up to 80%\* and many utilities offer rebates on furnaces equipped with an ECM.\*\*

Featured on ENERGY STAR® models.

### ELECTRONIC FAN TIMER CONTROL



Wiring is color-coded and equipped with connections for easy air conditioning, humidifier and air cleaner installation. A terminal strip is also supplied for thermostat connections.

\*Individual savings may vary

\*\*Check with your local government agencies and/or utilities regarding the availability of rebates. Another resource is [www.dsireusa.org](http://www.dsireusa.org)

# Our **Most Versatile** Furnace Series!



## The Universal Series Models (UML, UMLV)

The Universal Series is a multi-positional furnace that can replace highboy, lowboy, horizontal or downflow furnaces...versatility to fit any application! Compared with oil furnaces of long ago, the compact design of the Universal Series will allow you to claim more usable area in your basement. Additionally you will be able to enjoy fuel cost savings and greater comfort for you and your family!



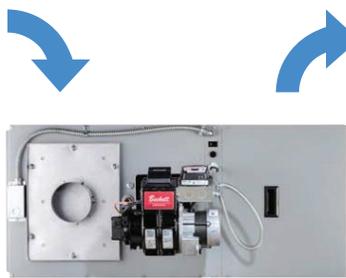
FOR SPECIFICATION INFORMATION, SEE PAGES 8-9

### 4 POSITIONS

### Versatility to Fit Any Application



UPFLOW



HORIZONTAL



DOWNFLOW



HORIZONTAL

Quality and care goes into every Olsen furnace.



**SPECIFICATIONS**

BTUH Input ..... 77,000 to 119,000  
Efficiencies..... Up to 87.5% AFUE  
Heat Exchanger ..... Stainless Steel  
High-Efficiency  
Multi-Pass  
Flue Location ..... Front  
Height: ..... 42-3/4"  
Supply Opening: ..... 17-3/4" x 18-3/4"  
Return: ..... 14" x 18"

**Chimney Vent Burner Options**

- Beckett AFG
- Riello 40F3
- Carlin EZ-LF

**Direct Vent Burner Options**

- Beckett NX
- Riello BF3
- Riello BF5

**Blower Motor Options**

- ECM Variable Speed High Efficiency
- PSC Direct Drive

**Other Features of the UML, UMLV Include:**

- Select models meet ENERGY STAR® requirements.
- Four Firing Rates: .55, .65, .75 and .85 gph.
- Models are shipped at .65 gph firing rate with all alternative nozzles supplied with furnace.
- Front access to heat exchanger. Easy to clean.
- Includes a 16" x 20" filter rack with washable, reusable filter. The filter rack can double as a transition piece if the installer wishes to use a Buffalo Boot instead.
- Barometric damper (Chimney Vent Only).
- Listed for closet installations.
- Durable 22-gauge steel cabinet ensures strength while full fiber-reinforced foil faced insulation and "cool-to-touch" technology provide quiet operation.
- A/C Ready - Up to 4 Tons.

# Our **Most Efficient** Lowboy Model Yet!



**NEW!**

## Lowboy Series Models (LRF, LRFV)

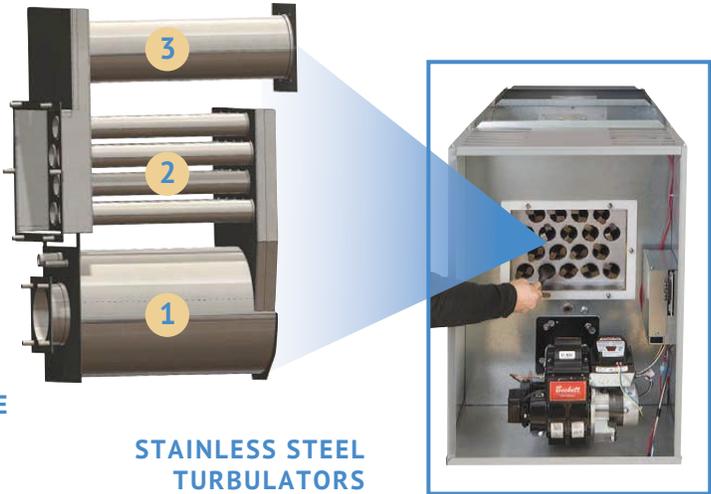
The LRF/LRFV models are unique to the Lowboy series as they feature our newly designed stainless steel high-efficiency heat exchanger.



FOR SPECIFICATION INFORMATION, SEE PAGES 10-11

## Stainless Steel, High-Efficiency Heat Exchanger

- 1 PRIMARY HEAT EXCHANGER**  
Utilizes a high-grade 409 stainless steel drum to withstand extreme temperatures and corrosive conditions.
- 2 SECOND PASS**  
Constructed of aluminized steel tubes with stainless steel turbulators, which can easily be removed as shown for easy cleaning.
- 3 LARGE HEAT TRANSFER SURFACE**  
Results in maximum efficiency levels and reduced operating costs.



**STAINLESS STEEL  
TURBULATORS**

Olsen's reliability, allows time for the important things in life.



## SPECIFICATIONS

BTUH Input .....	77,000 to 119,000
Efficiencies.....	Up to 86.8% AFUE
Heat Exchanger .....	Stainless Steel High-Efficiency Multi-Pass
Flue Location .....	Rear
Height: .....	33-5/8"
Supply Opening: .....	20-1/2" x 18"
Return: .....	20-1/2" x 18-5/8"

### Chimney Vent Burner Options

- Beckett AFG
- Riello 40F3
- Carlin EZ-LF

### Direct Vent Burner Options

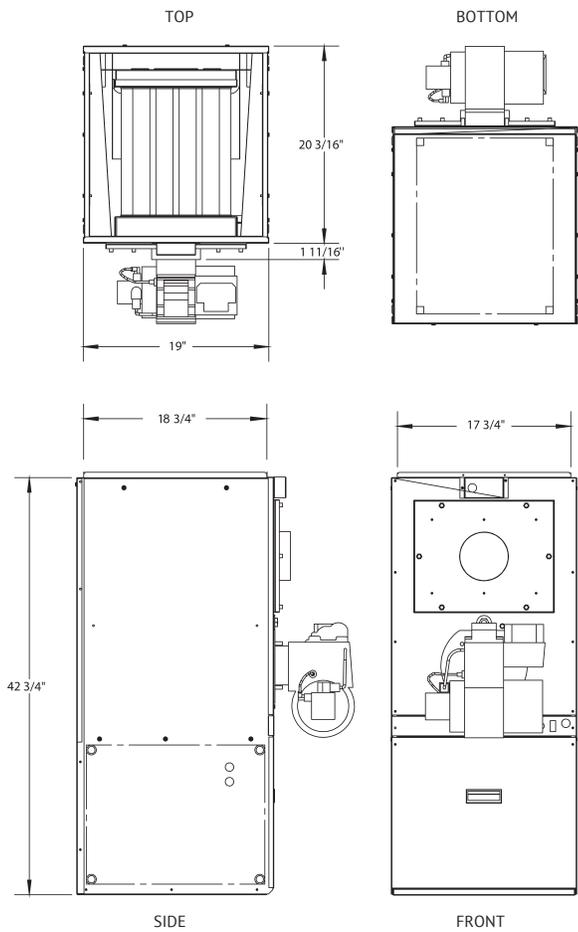
- Beckett AFG
- Riello 40F3
- Riello 40F5

### Other Features of the LRF, LRFV Include:

- Select models meet ENERGY STAR® requirements.
- Four Firing Rates: .55, .65, .75 and .85 gph.
- Models are shipped at .65 gph firing rate with all alternative nozzles supplied with furnace.
- Front access to heat exchanger. Easy to clean
- Includes a 20" x 20" filter rack with washable, reusable filter.
- Barometric damper.
- Durable 22-gauge steel cabinet ensures strength while full fiber-reinforced foil faced insulation and "cool-to-touch" technology provide quiet operation.
- A/C Ready - Up to 4 Tons.

# Specifications

## Universal Series (4 Positions) - Models: UML, UMLV



	Width	Depth	Height
<b>CABINET DIMENSIONS</b>	19"	20 3/16"	42 3/4"
	48.3 cm	51.3 cm	108.6 cm

<b>SHIPPING WEIGHT</b>	188 lbs (85.5 kg)
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	Width	Depth
<b>PLENUM OPENINGS</b>		
<b>SUPPLY</b>	17 3/4"	18 3/4"
	48.3 cm	51.3 cm
<b>RETURN: SIDE</b>	14"	18"
	35.6 cm	45.7 cm
<b>RETURN: BOTTOM</b>	14"	18"
	35.6 cm	45.7 cm

<b>Breach</b>
Front Flue

<b>FLUE DIAMETER</b>	5" (12.7 cm)
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<b>PERMANENT FILTER</b>	16" x 20" x 1"
	40.6 cm x 50.8 cm x 2.5 cm

### MODELS: UMLA AND UMLVA • CLEARANCES TO COMBUSTIBLES

	LOCATION	UPFLOW	DOWNFLOW	HORIZONTAL
<b>CLEARANCES</b> *24" (610 mm) Service Clearance. **When using combustible floor sub base 550003032 for downflow on combustible floor.	<b>Top</b>	N/A	N/A	1" (26 mm)
	<b>Bottom</b>	0"	0"	1" (26 mm)
	<b>Plenum Top</b>	1" (26 mm)	2" (52 mm)	1" (26 mm)
	<b>Horizontal Duct</b>	1" (26 mm)	2" (52 mm)	1" (26 mm)
	<b>Rear</b>	1" (26 mm)	1" (26 mm)	1" (26 mm)
	<b>Sides</b>	1" (26 mm)	1" (26 mm)	N/A
	<b>Front</b>	18" (458 mm)*	18" (458 mm)*	18" (458 mm)*
	<b>Flue Pipe</b>	5" (127 mm)	5" (127 mm)	5" (127 mm)
	<b>Enclosure</b>	Closet	Closet	Closet

**ELECTRICAL** Power requirement for all UML models is: 120 VAC, 1 Ø, 60 Hz., 12A, MCA 10.8 amps, MOP 15.0 amps.

**STANDARD EQUIPMENT** Two-Pass Heat Exchanger: 409 stainless steel welded primary heat exchanger and aluminized steel tube second pass heat exchanger, UTEC fan timer board with EAC & HUM controls, 16" x 20" filter rack with washable, reusable filter, barometric damper, low speed fan switch (PSC motor only), blocked vent safety switch (Canadian models only).

**OPTIONS** Burner Options: Chimney Vent - Beckett AFG, Riello 40F3 burner, or Carlin EZ-LF. Direct Vent - Beckett NX, Riello 40BF, or Carlin EZ-LFDV. 4-speed 1/2 hp PSC blower motor or 1/2 hp ECM variable speed motor, downflow floor base kit, cover for Beckett burner.

**CERTIFICATIONS**   \* Indicates an ENERGY STAR rated model. **BOLD TYPE** indicates factory equipped firing rate. Alternate nozzles for all available firing rates are furnished with the furnace.  
**General Information** (See Installation, Operation and Maintenance Manual for complete instructions)

All ratings and specifications subject to change.

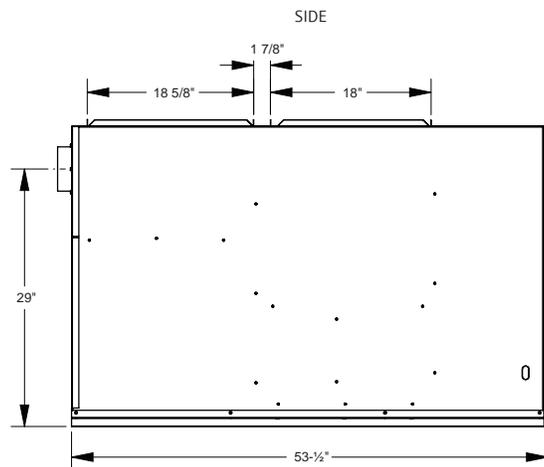
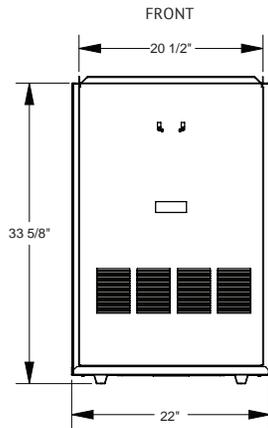
MODEL	ITEM NUMBER	FIRING RATE GPH	INPUT / OUTPUT MBH	AFUE-CHIMNEY VENT			AFUE-DIRECT VENT			MOTOR DRIVES		BREECH	AC RANGE IN TONS	
				BECKETT AFG	RIELLO 40F3	CARLIN EZ-LF	BECKETT NX	RIELLO BF3	RIELLO BF5	ECM VARIABLE SPEED	PSC DIRECT DRIVE			
<b>UML80A</b>	<b>UML080210411106</b>	<b>0.65</b>	<b>91/78</b>	<b>87.0%</b>										
UML65A	Alternate Firing Rate	0.55	77/66	87.5%							1/2 HP	Front Flue	Up to 3 Tons	
UML90A		0.75	105/88	85.2%										
UML100A		0.85	119/99	84.4%										
<b>UMLV80A*</b>	<b>UML080210412106</b>	<b>0.65</b>	<b>91/78</b>	<b>87.0%</b>										
UMLV65A	Alternate Firing Rate	0.55	77/66	87.5%							1/2 HP	Front Flue	Up to 4 Tons	
UMLV90A		0.75	105/88	85.2%										
UMLV100A		0.85	119/99	84.4%										
<b>UML80ARF</b>	<b>UML080240411106</b>	<b>0.65</b>	<b>91/78</b>		<b>86.3%</b>									
UML65ARF	Alternate Firing Rate	0.55	77/66		87.3%							1/2 HP	Front Flue	Up to 3 Tons
UML90ARF		0.75	105/88		85.2%									
UML100ARF		0.85	119/99		84.8%									
<b>UMLV80ARF*</b>	<b>UML080240412106</b>	<b>0.65</b>	<b>91/78</b>		<b>86.3%</b>									
UMLV65ARF	Alternate Firing Rate	0.55	77/66		87.3%						1/2 HP	Front Flue	Up to 4 Tons	
UMLV90ARF		0.75	105/88		85.2%									
UMLV100ARF		0.85	119/99		84.8%									
<b>UML80AC</b>	<b>UML080280411106</b>	<b>0.65</b>	<b>91/78</b>			<b>86.3%</b>								
UML65AC	Alternate Firing Rate	0.55	77/66			87.1%						1/2 HP	Front Flue	Up to 3 Tons
UML90AC		0.75	105/88			84.4%								
UML100AC		0.85	119/99			84.0%								
<b>UMLV80AC*</b>	<b>UML080280411106</b>	<b>0.65</b>	<b>91/78</b>			<b>86.3%</b>								
UMLV65AC	Alternate Firing Rate	0.55	77/66			87.1%					1/2 HP	Front Flue	Up to 4 Tons	
UMLV90AC		0.75	105/88			85.2%								
UMLV100AC		0.85	119/99			84.0%								
UML80ALBU	UML080262411106/550003435**	0.65	91/76				84.4%							
UML65ANXU	UML080262411106/550003435**	0.55	77/65				85.8%				1/2 HP	Front Flue	Up to 3 Tons	
UML90ANXU	UML080262411106/550003435**	0.75	105/87				83.5%							
UML100ANXU	UML080262411106/550003435**	0.85	119/98				83.3%							
<b>UMLV80ALBU*</b>	<b>UML080262412106/550003435**</b>	<b>0.65</b>	<b>91/77</b>				85.2%							
UMLV65ANXU*	UML080262412106/550003435**	0.55	77/66				85.7%				1/2 HP	Front Flue	Up to 4 Tons	
UMLV90ANXU*	UML080262412106/550003435**	0.75	105/87				83.6%							
UMLV100ANXU*	UML080262412106/550003435**	0.85	119/97				83.1%							
UML80ARBU	UML080262411106/550003433**	0.65	91/76					85.0%						
UML65ARBU	UML080262411106/550003433**	0.55	77/76					86.4%				1/2 HP	Front Flue	Up to 3 Tons
UML90ARBU	UML080262411106/550003434**	0.75	105/87						83.6%					
UML100ARBU	UML080262411106/550003434***	0.85	119/98						83.7%					
<b>UMLV80ARBU*</b>	<b>UML080262412106/550003433**</b>	<b>0.65</b>	<b>91/77</b>					85.0%						
UMLV65ARBU*	UML080262412106/550003433**	0.55	77/66					86.4%			1/2 HP	Front Flue	Up to 4 Tons	
UMLV90ARBU*	UML080262412106/550003434***	0.75	105/87						83.6%					
UMLV100ARBU*	UML080262412106/550003434***	0.85	119/97						83.7%					

**BOLD TYPE** indicates factory-equipped firing rate. Other firing rates shown utilize alternate nozzles supplied with furnace.

\* ENERGY STAR® rated model. \*\*Item number includes: Furnace less burner / burner kit, ordered separately.

# Specifications

## Lowboy Series - Models: LRF, LRFV



	Width	Depth	Height
<b>CABINET DIMENSIONS</b>	22"	53 1/2"	33 5/8"
	55.8 cm	135.9 cm	85.4 cm

<b>SHIPPING WEIGHT</b>	240 lbs (108 kg)
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	Width	Depth
<b>PLENUM OPENINGS</b>		
<b>SUPPLY</b>	20 1/2"	18"
	52.1 cm	45.7 cm
<b>RETURN</b>	20 1/2"	18 5/8"
	52.1 cm	47.3 cm

<b>Breach</b>
Rear Flue

<b>FLUE DIAMETER</b>	5" (12.7 cm)
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<b>PERMANENT FILTER</b>	20" x 20" x 1"
	51 cm x 51 cm x 2.5 cm

### MODELS: LRF AND LRFV • CLEARANCES TO COMBUSTIBLES

	LOCATION	CLEARANCE
<b>CLEARANCES</b>	Top	1" (26 mm)
	Bottom	0"
	Plenum	1" (26 mm)
	Rear	6" (152 mm)*
	Sides	1" (26 mm)**
	Front	1" (26 mm)*
	Flue Pipe	5" (127 mm)
	Enclosure	Closest

\*24" (610 mm) Service Clearance.  
 \*\*18" (457 mm) required from one side for access to rear.

<b>ELECTRICAL</b>	Power requirement for all LRF models is: 120 VAC, 1 Ø, 60Hz., 12A.
<b>STANDARD EQUIPMENT</b>	Two-Pass Heat Exchanger: 409 stainless steel welded primary heat exchanger and aluminized steel tube second pass heat exchanger, UTEC fan timer board with EAC & HUM controls, 20" x 20" filter rack with washable, reusable filter, barometric damper, low speed fan switch (PSC motor only), blocked vent safety switch (Canadian models only).
<b>OPTIONS</b>	Burner Options: Chimney Vent - Beckett AFG, Riello 40F3, or Carlin EZ-LF. Direct Vent - Beckett NX, Riello BF3, or Riello BF5. Blower Options: 1/2 hp PSC 4-speed direct drive, 1/2 hp ECM variable speed (constant cfm) direct drive, or 1/2 hp single speed belt drive with adjustable motor pulley.

<b>CERTIFICATIONS</b>	 	<p>* Indicates an ENERGY STAR rated model. <b>BOLD TYPE</b> indicates factory equipped firing rate. Alternate nozzles for all available firing rates are furnished with the furnace.</p> <p><b>General Information</b> (See Installation, Operation and Maintenance Manual for complete instructions)</p>
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All ratings and specifications subject to change.

MODEL	ITEM NUMBER	FIRING RATE GPH	INPUT / OUTPUT MBH	AFUE CHIMNEY VENT			CHIMNEY VENT KITS			AVAILABLE MOTOR DRIVES			AC RANGE IN TONS
				BECKETT AFG	RIELLO 40F3	CARLIN EZ-LF	BECKETT AFG	RIELLO 40F3	CARLIN EZ-LF	ECM VARIABLE SPEED	PSC DIRECT DRIVE	BELT DRIVE	
<b>LRF80</b>	<b>LRF080010413006</b>	<b>0.65</b>	<b>91 / 78</b>	<b>85.9%</b>			<b>85.9%</b>						
LRF65	Alternate Firing Rate	0.55	77 / 66	86.1%			86.1%					1/2 HP	
LRF90		0.75	105 / 89	85.3%			85.3%						
LRF100		0.85	119 / 100	84.5%			84.5%						
<b>LRF80</b>		<b>LRF080210411006</b>	<b>0.65</b>	<b>91 / 78</b>	<b>85.9%</b>			<b>85.9%</b>					
LRF65	Alternate Firing Rate	0.55	77 / 66	86.1%			86.1%					1/2 HP	Up to 3 Tons
LRF90		0.75	105 / 89	85.3%			85.3%						
LRF100		0.85	119 / 100	84.5%			84.5%						
<b>LRFV80*</b>		<b>LRF080210412006</b>	<b>0.65</b>	<b>91 / 78</b>	<b>85.9%</b>			<b>85.9%</b>					
LRFV65	Alternate Firing Rate	0.55	77 / 66	86.1%			86.1%			1/2 HP			Up to 4 Tons
LRFV90		0.75	105 / 89	85.3%			85.3%						
LRFV100		0.85	119 / 100	84.5%			84.5%						
<b>LRF80RF</b>		<b>LRF080040413006</b>	<b>0.65</b>	<b>91 / 78</b>		<b>86.4</b>			<b>86.4</b>				
LRF65RF	Alternate Firing Rate	0.55	77 / 66		86.8			86.8					1/2 HP
LRF90RF		0.75	105 / 89		85.6			85.6					
LRF100RF		0.85	119 / 100		85.1			85.1					
<b>LRF80RF</b>		<b>LRF080240411006</b>	<b>0.65</b>	<b>91 / 78</b>		<b>86.4</b>			<b>86.4</b>				
LRF65RF	Alternate Firing Rate	0.55	77 / 66		86.8			86.8					1/2 HP
LRF90RF		0.75	105 / 89		85.6			85.6					Up to 3 Tons
LRF100RF		0.85	119 / 100		85.1			85.1					
<b>LRFV80RF*</b>		<b>LRF080240412006</b>	<b>0.65</b>	<b>91 / 78</b>		<b>86.4</b>			<b>86.4</b>				
LRFV65RF	Alternate Firing Rate	0.55	77 / 66		86.8			86.8			1/2 HP		Up to 4 Tons
LRFV90RF		0.75	105 / 89		85.6			85.6					
LRFV100RF		0.85	119 / 100		85.1			85.1					
<b>LRF80C</b>		<b>LRF080080413006</b>	<b>0.65</b>	<b>91 / 78</b>			<b>85.9%</b>			<b>85.9%</b>			
LRF65C	Alternate Firing Rate	0.55	77 / 66			86.5%			86.5%				1/2 HP
LRF90C		0.75	105 / 89			85.8%			85.8%				
LRF100C		0.85	119 / 100			84.4%			84.4%				
<b>LRF80C</b>		<b>LRF080280411006</b>	<b>0.65</b>	<b>91 / 78</b>			<b>85.9%</b>			<b>85.9%</b>			
LRF65C	Alternate Firing Rate	0.55	77 / 66			86.5%			86.5%				1/2 HP
LRF90C		0.75	105 / 89			85.8%			85.8%				Up to 3 Tons
LRF100C		0.85	119 / 100			84.4%			84.4%				
<b>LRFV80C*</b>		<b>LRF080280412006</b>	<b>0.65</b>	<b>91 / 78</b>			<b>85.9%</b>			<b>85.9%</b>			
LRFV65C	Alternate Firing Rate	0.55	77 / 66			86.5%			86.5%				1/2 HP
LRFV90C		0.75	105 / 89			85.8%			85.8%				Up to 4 Tons
LRFV100C		0.85	119 / 100			84.4%			84.4%				
LRF80LB**		LRF080060413006	0.65	91 / 78	85.9%	86.4%	85.9%	85.9%	86.4%	85.9%			1/2 HP
LRF80LB**	LRF080260411006	0.65	91 / 78	85.9%	86.4%	85.9%	85.9%	86.4%	85.9%		1/2 HP		Up to 3 Tons
LRFV80LB**	LRF080260412006	0.65	91 / 78	85.9%	86.4%	85.9%	85.9%	86.4%	85.9%	1/2 HP			Up to 4 Tons

**BOLD TYPE** indicates factory-equipped firing rate. Other firing rates shown utilize alternate nozzles supplied with furnace.

\* ENERGY STAR® rated model. \*\*Item number includes: Furnace less burner. Burner kit ordered separately; Beckett AFG - 550003220, Riello 40F3 - 550003221, Carlin EZ-LF - 550003222.

# Advantages of an Olsen Premium Oil Furnace

## For the Installer

- Stainless Steel Heat Exchanger – the strength of stainless steel for lasting durability.
- Efficiency – multiple passes increase heat transfer and result in maximum efficiency with reduced operating costs. That makes for happier customers.
- Serviceability – easier to service, keeping maintenance and repair costs down.
  - Easy to access clean ports – located conveniently in the front of the furnace.
  - No refractory – eliminates the time and expense of replacing it.
- Flexibility – the perfect furnace for any job featuring:
  - 4 different firings rates that can be adjusted to meet the needs of the job.
  - A Direct Vent to allow for both sidewall or chimney venting.
  - UML Rotation can accommodate a variety of ductwork positions.



## For the Homeowner

- Stainless Steel Heat Exchanger – the strength of stainless steel means a longer life for your furnace.
- Efficiency – multiple pass design means a more efficient furnace and lower utility costs.
- Serviceability – our easy to service design helps keep maintenance and repair costs down.

CERTIFIED



**Olsen**



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