

LO-BOY OIL FURNACE

FEATURES

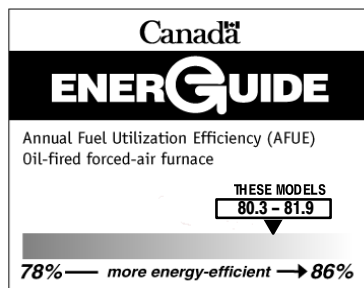
- **Fan Control Switch** – for continuous speed
- **Accessory terminals** – prewired for easy add-on electronic air cleaner and power humidifier. Air conditioning ready for easy add-on.
- **Large external front clean out** – for easy cleaning
- **Clean out** – sealed from blower compartment (no soot to spread)
- **Easy Access** – control panel
- **Sight Glass/View Port**
- **Furnaces** – are available with Beckett AFG high efficiency burners
- **“Easy Access” heat exchanger** – manufactured from heavy gauge steel
- **Multi-Speed Direct Drive Motors** – permanently lubricated for long life performance
- **Heavy-duty insulated cabinet** – for quiet operation
- **Approved for 1” (25mm) clearance to combustibles** – for tight installations
- **Ceramic combustion chamber** – withstands temperature of 2600° F (1427° C) with unique “self aligning” design
- **Precision balanced blower** – ensures quiet, efficient air distribution
- **Raised cabinet base** – allows air to circulate under the cabinet. Eliminates dampness
- **Approved** – For chimney installation ONLY
- **Efficient** – Up to 81.9% AFUE
- **Front Flue (Breach)**
- **Shipped complete** – Vestibule, barometric damper, burners and nozzles are installed

WARRANTY *

- Lifetime heat exchanger limited warranty with timely registration
- 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * Applies to original purchaser/homeowner, some limitations may apply. See warranty certificate for complete details.



Illustrations and photographs are only representative.
Some product models may vary.



ONLY applies to applications in Canada where the furnace is installed in the conditioned space, per sections 5.35.1.2 and 4.7.1.1 of CSA standard B212 dated October 2000.

LO-BOY OIL FURNACE				
Model Number	Dimensions- in(mm) H x W x D†	Input (BTU/h)	Cooling capacity @ .5 in wc (125 Pa)	Operating Wt. Lbs.(Kg)
NOLF105A12	32 x 21 x 53 ^{1/4} (813 x 534 x 1352)	70,000 - 100,800	1.5 - 3 TON	207 (94)

† Depth with the burner

FURNACE SPECIFICATIONS

Model:	NOLF105A12D			
Rating and Performance				
Firing Rate (USGPH)	.50	.63	.75	.72
Input (BTU/h)	70,000	88,200	105,000	100,800
Heating capacity, chimney installation (BTU/h)	59,200	73,000	87,800	NA
Heating capacity, side-wall installation (BTU/h)	59,400	73,200	88,200	84,200
Minimum-maximum Temperature Rise	11° - 24° C / 52° - 75° F			
Stack draft, Chimney, (Side-wall)	-0.035" to -0.06" (+0.04" to +0.16")			
Overfire pressure, Chimney, (Side-wall)	0.00" to +0.035" (+0.10" to +0.25")			
Beckett Burner, Chimney Installation				
AFG-F0 (tube insertion 5 1/8")				
Low firing rate baffle	Yes	Yes	No	NA
Static disc. model	2 ³ / ₄ #3383			NA
Nozzle (Delavan)	0.50-70A		0.60-70B	NA
Pump Pressure (PSIG)	100	156	156	NA
Combustion air adjustment (band/shutter)	0 / 4.5	0 / 8	0 / 7.5	NA
AFUE % (From CSA B212 standard and Canadian regulation)**	81.9	81.0	80.3	NA
AFUE % (From ASHRAE 103 standard and US regulation)	81.5	81.0	80.3	NA
Beckett Burner, Side-wall Installation				
AFII-85 (tube insertion 4¹⁵/₁₆")				
Nozzle (Delavan)	0.50-60W		0.60-60W	NA
Pump Pressure (PSIG)	130	140	160	NA
Combustion air adjustment (screw/dial)	3 / 1.5	3 / 3	3 / 4.5	NA
AFUE % (From CSA B212 standard and Canadian regulation)**	81.9	81.0	80.3	NA
AFUE % (From ASHRAE 103 standard and US regulation)	81.5	81.0	80.3	NA
Electrical System				
Volts - Hertz - Phase	115-60-1			
Operating voltage range	104 - 132			
Rated voltage Amp	12.2			
Minimum ampacity for wiring sizing	13.7			
Max. fuse size (Amps.)	15			
Control transformer	40 VA			
Ext. control power available, cooling and accessories	30 VA			
Blower Data				
Blower speed at 0.50 in wc (125 Pa) static pressure	LOW	MED-HI	HIGH	HIGH
Blower speed at 0.25 in wc (62 Pa) static pressure	LOW	MED-HI	HIGH	HIGH
Maximum cooling speed	LOW	MED-LO	MED-HI	HIGH
Maximum cooling tons at 0.50 in wc (125 Pa) static pressure	1.5	2	2.5	3
Motor (HP) / number of speeds	1/3 HP / 4 speeds			
Blower wheel size - in(mm)	10 x 10 (254 X 254)			
Filter quantity and size - in(mm)	(1) 20 x 20 (508 x 508)			
Weight - Lbs.(Kg.)	207 (94)			

NOTE: AFUE value established after minimum 20 hours of continuous operation.
 ** Applies to applications in Canada where the furnace is installed in the conditioned space, per sections 5.35.1.2 and 4.7.1.1 of CSA standard B212 dated October 2000.

BLOWER PERFORMANCE DATA

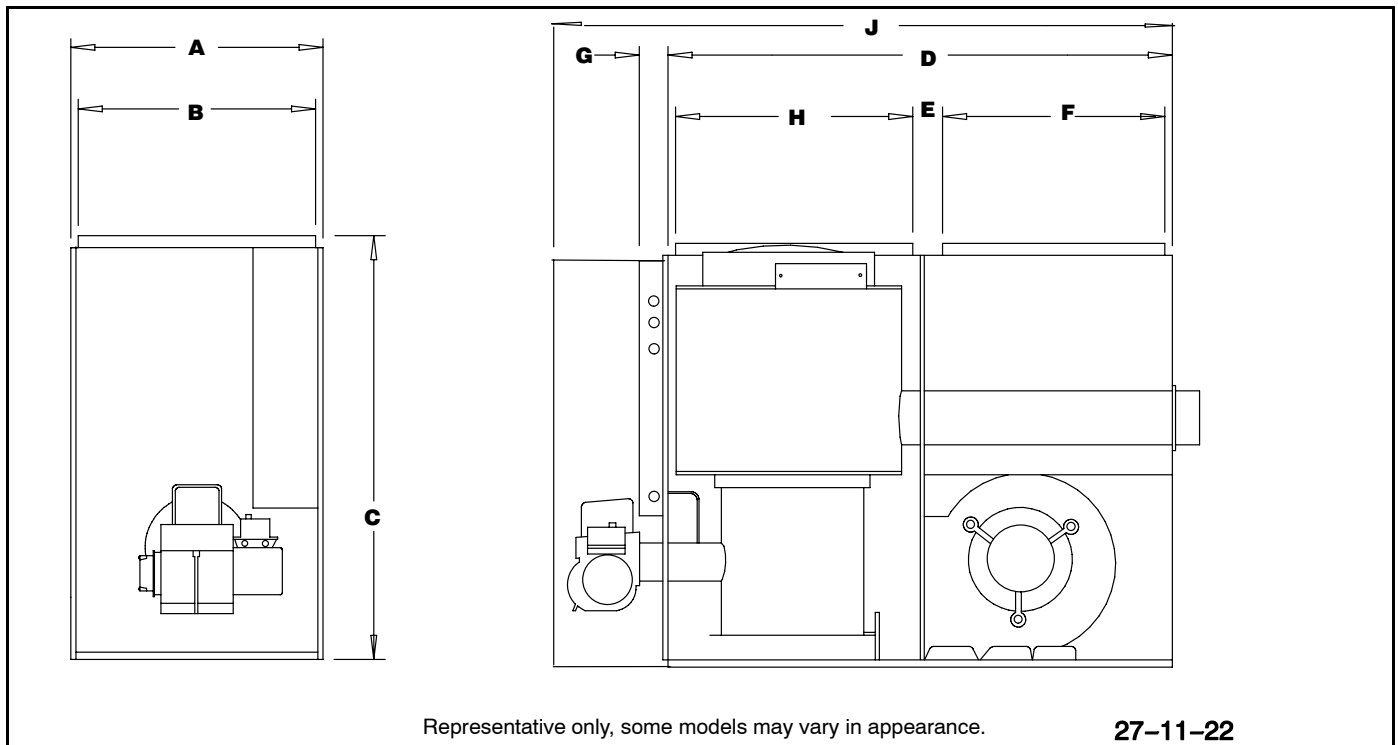
Air delivery - with air filter

EXTERNAL STATIC PRESSURE - in wc								EXTERNAL STATIC PRESSURE - Pa							
Speed	0.10	0.20	0.30	0.40	0.50	0.60	0.70	Speed	25	50	75	100	125	149	174
	CFM								L/s						
Low	882	854	826	798	770	742	714	Low	416	403	390	377	363	350	337
Med-Lo	1056	992	928	864	800	736	672	Med-Lo	498	468	438	408	378	347	317
Med-Hi	1092	1064	1036	1008	980	952	924	Med-Hi	515	502	489	476	462	449	436
High	1360	1320	1280	1240	1200	1160	1120	High	642	623	604	585	566	547	529

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER blank = Burners & Accessories ordered separately N = Complete furnace w/burners + vestibule	N	O	L	F	105	A	12	D
FUEL O = Oil								REVISION
PRODUCT GROUP U = Upflow H = Horizontal T = Upflow/Horizontal L = Lowboy								AIR FLOW 08 = 800 CFM 12 = 1200 CFM 18 = 1800 CFM 20 = 2000 CFM
							SUPPLY PLENUM SIZE A = 20 x 20 B = 24 x 24 C = 21.1 x 21.5	
SERIES F = Front Breech								INPUT, MBTUH

DIMENSIONS



Furnace Dimensions - in(mm)										
A	B	C	D	E	F	G	H	J	Flue Sizes	Vestibule Width
in										
21	19 ³ / ₄	32	41	2	17 ³ / ₄	2.4	19 ³ / ₄	53 ¹ / ₄	5	21 ¹ / ₂
mm										
533	502	813	1041	51	451	610	502	1353	127	546

Minimum Installation Clearances from Combustible Materials - in(mm)		
Sides	Furnace	1" (25.4mm)
	Supply plenum, warm air duct within 6' (1.8m) of furnace	1" (25.4mm)
Back	Furnace	1" (25.4mm)
Top	Furnace casing or plenum	1" (25.4mm)
Bottom	Furnace - combustible floor	0"
Front	Furnace	24" (25.4mm)

ACCESSORIES

Product Model No.	Burners	Nozzle (not supplied)	Direct Vent Terminal	Direct Vent Pipe	Coil Adapter	Accessories Vestibule Kit
NOLF105A12	N01J040 (Beckett–chimney)	(0.50 – 70A) – N03F015	--	--	OCA20	LBVEST1
		0.60–70B – N03H014	--	--		
	N01F032 (Riello–chimney)	(0.50 – 60A) – N03F014	--	--		
		0.60–60A – N03F017	--	--		
	N01J038 (Beckett–direct vent)	(0.50 – 60W) – N03G010	VTK1 5"	IFV315 or IFV323 or IFV330		
		0.60 – 60W – N03G011				
	N01F034 (Riello–direct vent)	(0.50 – 60W) – N03G010				
		0.60 – 60W – N03G011				

ADDITIONAL ACCESSORIES

Accessories Model No	Description	Use With
CAS2B	Outside Air Intake Kit	ALL Models
CAD1	Flexible Air Duct – 25' (7.6m) Class 1 for CAS2B	ALL Models
Q034	Mounting Bracket Kit for Filters	ALL Models
Q035	Mounting Restriction Gauge	ALL Models
Z08F001	Micron Media Filter and Head	ALL Models
Z08F004	Micron Media Filter Replacement	ALL Models

ACCESSORY DESCRIPTION

Accessories Model No	Description
N01J040	Beckett AFG–F0 Oil Burner for 5" (127mm) Breech Models
N01J038	Beckett AFII–85 Oil Burner for 5" (127mm) Breech Models
N01F032	Riello 40–F3 Oil Burner for 5" (127mm) Breech Models (Chimney Vent)
N01F034	Riello 40–BF3 Oil Burner for 5" (127mm) Breech Models (Direct Vent)
LBVEST1	Vestibule Kit for 5" (127mm) Breech Low Boy Models (Shipped with unit)
N03F017	Nozzle, Oil Burner, Delavan, 0.6 GPH/60° A
N03F015	Nozzle, Oil Burner, Delavan, 0.5 GPH/70° A
N03H014	Nozzle, Oil Burner, Delavan, 0.6 GPH/70° B
N03G011	Nozzle, Oil Burner, Delavan, 0.6 GPH/60° W
N03G010	Nozzle, Oil Burner, Delavan, 0.5 GPH/60° W

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Specifications subject to change without notice.