

DOWNFLOW/HORIZONTAL OIL FURNACE



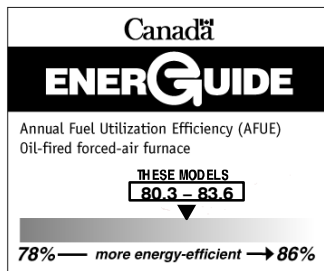
Illustrations and photographs are only representative. Some product models may vary.

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 your choice of high efficiency Riello and Beckett burners. (Burners ordered and shipped separately.)
- **Test Ports** – factory installed to provide efficient access for set-up and service
- **“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** – Chimney Vent and Direct Vent applications
- **Combustible Floor Base** – For Downflow/horizontal models
- **Efficient** – AFUE up to 83.6% Canada, 81.5% US
- **Front Flue (Breech)**

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.



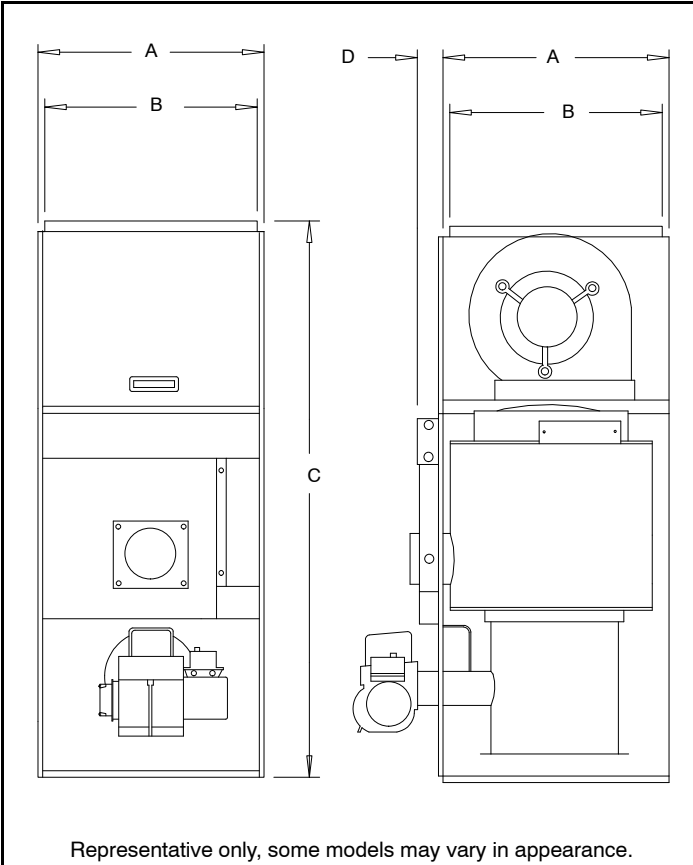
ONLY applies to applications in Canada where the furnace is installed in the conditioned space, per sections 5.35.1.2 and 4.7.1.1 of CSA standard B212 dated October 2000.

Model Number	Input (BTU/h)	Efficiency AFUE		Cooling capacity @ .5 in wc (125 Pa)	Dimensions in(mm) H x W x D†	Operating Wt. Lbs.(Kg)
		CANADA	US			
OCF105A12	70,000 – 100,800	80.3 – 83.6	80.3 – 81.5	1.5 – 3 TON	57 x 21 x 21 (1448 x 533 x 533)	220 (100)

† Depth without the burner

MODEL NUMBER IDENTIFICATION GUIDE							
MODEL NUMBER	O	C	F	105	A	12	C
FUEL O = Oil				REVISION			
PRODUCT GROUP U = Upflow D = Downflow H = Horizontal C = Downflow/Horizontal T = Upflow/Horizontal M = Multiposition L = Lo-Boy				AIR FLOW 08 = 800 CFM 12 = 1200 CFM 18 = 1800 CFM 20 = 2000 CFM			
SERIES F = Front Breech R = Rear Breech				SUPPLY PLENUM SIZE A = 20 x 20 B = 24 x 24			
INPUT, MBTUH							

DIMENSIONS AND CLEARANCES



Furnace Dimensions - in(mm)				
A	B	C	D	Flue
in				
21	19-3/4	57	2.4	5
mm				
533	502	1448	610	127

Minimum Installation Clearances from Combustible Materials - in(mm)		
Sides	Furnace	1" (25.4 mm)
	Supply plenum, warm air duct within 6' (1.8m) of furnace	1" (25.4 mm)
Back	Furnace	1" (25.4 mm)
Top	Furnace casing or plenum	1" (25.4 mm)
Bottom	Furnace - combustible floor*	0"
Front	Furnace	24" (609.6 mm)

BLOWER PERFORMANCE DATA (Air delivery - with air filter)

Speed	EXTERNAL STATIC PRESSURE - in wc						
	0.1	0.2	0.3	0.4	0.5	0.6	0.7
	CFM						
Low	720	700	680	660	640	620	600
Med-Lo	818	806	794	782	770	758	746
Med-Hi	1114	1078	1042	1006	970	934	898
High	1434	1378	1322	1266	1210	1154	1098

Speed	EXTERNAL STATIC PRESSURE - Pa						
	25	50	75	100	125	149	174
	L/s						
Low	340	330	321	311	302	293	283
Med-Lo	386	380	375	369	363	358	352
Med-Hi	526	509	492	475	458	441	424
High	677	650	624	597	571	545	518

FURNACE SPECIFICATIONS				
Model:		OCF105A12C		
Rating and Performance				
Firing Rate	.50	.63	.75	.72
Input (BTUh)	70,000	88,200	105,000	100,800
Heating capacity, chimney installation (BTUh)	58,000	72,500	85,200	NA
Heating capacity, side-wall installation (BTUh)	58,200	72,600	85,700	83,000
Minimum - maximum Temperature Rise	52 - 70° F / 28 - 39° C			
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	0.50-70A	0.60-70B	NA
Pump Pressure (PSIG)	100	156	156	NA
Combustion air adjustment (shutter/band)	0 / 4.5	0 / 8	0 / 7.5	NA
CANADIAN regulation and CSA B212 standard ** AFUE %	81.5	81.0	80.3	NA
US regulation ASHRAE 103 standard AFUE %	81.5	81.0	80.3	NA
Riello Burner, Chimney Installation		40-F3 (tube insertion 5-3/16")		
Nozzle (Delavan)	0.40-60A	0.50-60A	0.60-60A	NA
Pump Pressure (PSIG)	156	156	156	NA
Combustion air adjustment (turbulator/damper)	0 / 2	0 / 3	0 / 4	NA
CANADIAN regulation and CSA B212 standard ** AFUE %	83.6	83.1	81.6	NA
US regulation ASHRAE 103 standard AFUE %	81.5	81.0	80.3	NA
Beckett Burner, Side-wall Installation		AFI-85 (tube insertion 4-15/16")		
Nozzle (Delavan)	0.50-60W	0.50-60W	0.60-60W	NA
Pump Pressure (PSIG)	130	140	160	NA
Combustion air adjustment (turbulator/damper)	3 / 1.5	3 / 3	3 / 4.5	NA
CANADIAN regulation and CSA B212 standard ** AFUE %	81.5	81.0	80.3	NA
US regulation ASHRAE 103 standard AFUE %	81.5	81.0	80.3	NA
Riello Burner, Side-wall Installation		40-BF3 with AL1009 post purge control (tube insertion 5-3/16")		
Nozzle (Delavan)	0.50-60W	0.50-60W	NA	0.60-60W
Pump Pressure (PSIG)	135	140	NA	155
Combustion air adjustment (turbulator/damper)	0 / 3	0 / 6	NA	0 / 7.5
CANADIAN regulation and CSA B212 standard ** AFUE %	83.6	83.1	NA	81.6
US regulation ASHRAE 103 standard AFUE %	81.5	81.0	NA	80.3
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 VAC			
Ext. control power available, cooling and accessories	30 VAC			
Blower Data				
Blower speed at .50 in wc (125Pa) static pressure	MED-LO	MED-HI	HIGH	HIGH
Blower speed at .25 in wc (62 Pa) static pressure	MED-LO	MED-HI	HIGH	HIGH
Maximum cooling speed	LOW	MED-LO	MED-HI	HIGH
Maximum cooling tons @ .5 in wc (125 Pa)	1.5	2	2.5	3
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.)	202 (92)			

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.

ACCESSORIES						
Product Model No.	Burners	Nozzle (not supplied)	Direct Vent Terminal	Direct Vent Pipe	Accessories	Combustible Floor Base
OCF105A12	N01J040 (Beckett–chimney)	(0.50 – 70A) – N03F015	--	--	DFVEST1M Vestibule Kit	CFB1
		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”(127mm)	IFV315, 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 Beckett Direct Vent Burners	ALL Models
CAD1	Flexible Air Duct – 25’ (7.6m) Class 1 for CAS2B	ALL Models
C7001025	Riello Two–pipe Change over Kit	ALL Models
Q034	Mounting Bracket Kit for Filters	ALL Models
Q035	Mounting Restriction Gauge	ALL Models
Z08F001	7 Micron Media Filter and Head	ALL Models
Z08F004	7 Micron Media Filter Replacement	ALL Models

ACCESSORY DESCRIPTION	
Accessories Model No	Description
N01J040	Beckett AFG–F0 Oil Burner for 5” (127mm) Breech Models
N01F032	Riello 40–F3 Oil Burner for 5” (127mm) Breech Models
N01J038	Beckett AFII–85 Oil Burner for 5” (127mm) Breech Models
N01F034	Riello 40–BF3 Oil Burner for 5” (127mm) Breech Models
VTK1	Vent Terminal Kit for 5” (127mm) Breech Models
IFV315	15’ x 3” (4.6m x 76mm) Insulated Flex Vent for 5” Breech Models
IFV323	23’ x 3” (7m x 76mm) Insulated Flex Vent for 5” Breech Models
IFV330	30’ x 3” (9m x 76mm) Insulated Flex Vent for 5” Breech Models
DFVEST1M	Vestibule Kit for Downflow Models
CFB1	Combustion Floor Base
N03F014	Nozzle, Oil Burner, Delavan, 0.5 GPH/60° A
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
N03G010	Nozzle, Oil Burner, Delavan, 0.5 GPH/60° W
N03G011	Nozzle, Oil Burner, Delavan, 0.6 GPH/60° W