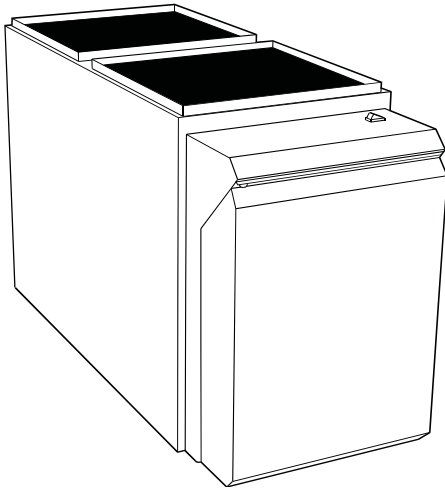


**CBLAAA  
LOW-BOY OIL FURNACE  
INPUT RATES: 70,000 thru 154,000 BTUH  
SERIES 140**

## Product Data



A96280

### THE LATEST IN OIL FURNACE TECHNOLOGY

The model CBLAAA combines high efficiency and quiet operation with oil heating technology. The CBLAAA is available in 2 sizes. Each size can be fired at 3 different rates by a simple nozzle and pump pressure change. The 154,000 BTUH input requires a burner head change also. Unit CBLAAA105 covers input ranges from 70,000 to 105,000 BTUH. Unit CBLAAA120 covers input ranges from 119,000 to 154,000 BTUH. The furnace design is a low-boy style for upflow applications, where overhead space is limited.

The components of the CBLAAA are the finest in the industry. The unit uses a Beckett oil burner with a “clean-cut” oil pump, and UTEC fan cycle timer.

The CBLAAA is a standard part of a quality-built home. This high efficiency furnace will provide years of quality service to home builders and homeowners alike.

As with our other furnaces, this model is designed to work as part of total home comfort system which includes elements for cooling, air cleaning, humidification, ventilation, and zoning.

This unit is not approved for use in mobile home installations.

### CBLAAA FEATURES/BENEFITS

#### Beckett Oil Burner and UTEC Controls

- High quality Beckett oil burner with “clean-cut” pump allows safe and efficient combustion of oil.
- UTEC fan timer board provides reliable operation and easy connection of thermostat and accessory wiring.

#### Casing

- Made of 20-gauge painted steel for years of durability.
- Cabinet features an insulated enclosure for the burner and controls.

#### Insulation and Soundproofing

- Unique sound trap along with insulated walls efficiently captures most combustion and vibration noise to make this unit one of the quietest on the market.

#### Combustion Products Venting

- Rear flue outlet.
- Unit may be vented using Type L vent material and a factory-built metal or masonry chimney.
- Unit may also be sidewall vented with an approved power venter.

#### Adjustable Blower Speed

- 4-speed blower for precise airflow selection of heating or cooling operation.

#### Constant Low-Speed Blower Switch

- Allows continual low-speed air circulation through the home to maximize comfort while maintaining efficiency.
- Air is constantly filtered and stagnant air is avoided.
- This option can be controlled by the homeowner.

#### Combustion Chamber/Heat Exchanger

- Composed mainly of stainless and aluminized steel, the unique combination combustion chamber/heat exchanger resists corrosion, overheating, and deterioration.
- Heat transfer properties make it highly efficient.
- All seams are tightly welded for leak-free operation.

#### Certifications

- CBLAAA unit is CSA certified.
- The efficiency is AHRI efficiency rating certified.

# MODEL NUMBER NOMENCLATURE

CBLAAA

036

105

AAB

E

Beckett Burner  
Low-Boy Oil Furnace  
PSC motor

Cooling Size Airflow  
(Nominal 400 CFM per 12,000 BTUH Cooling)  
036 – 1200 CFM  
060 – 2000 CFM

Input Capacity  
105 – 70,000 BTUH with 0.40 gph nozzle  
91,000 BTUH with 0.50 gph nozzle  
105,000 BTUH with 0.65 gph nozzle  
120 – 119,000 BTUH with 0.75 gph nozzle  
140,000 BTUH with 0.85 gph nozzle  
154,000 BTUH with 0.85 gph nozzle

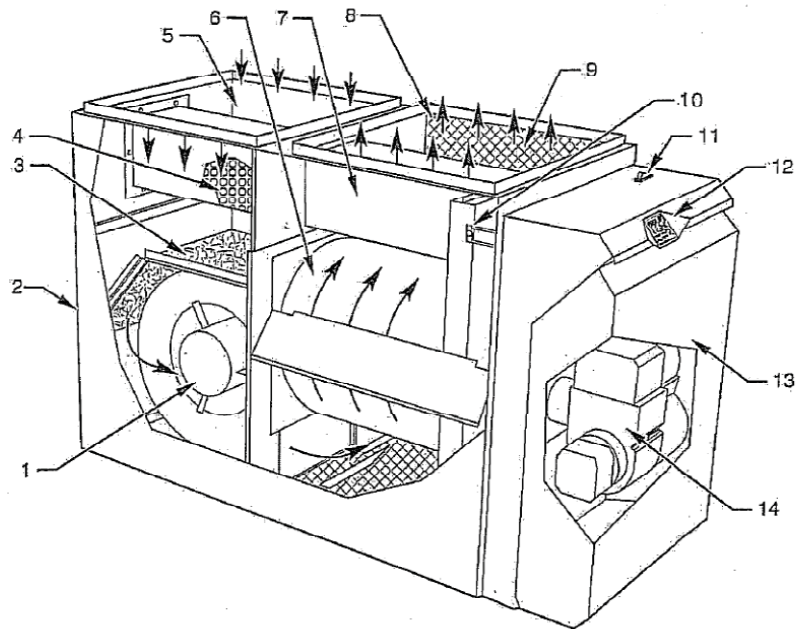
Blower Motor  
E=1/3 HP – Direct Drive  
F=1/2 HP – Direct Drive  
G=3/4 HP (or larger) – Direct Drive

Series



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).

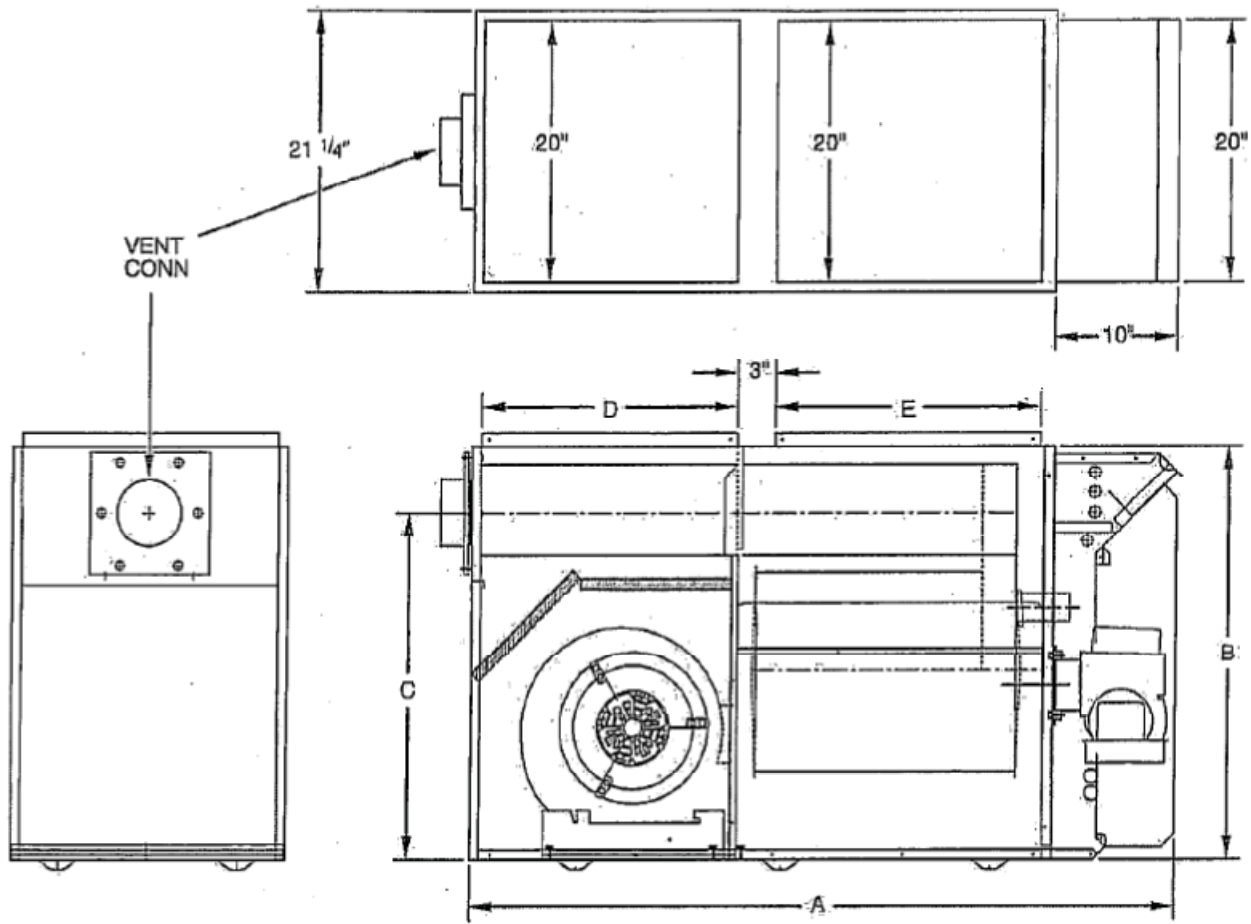
Always Ask For  
**FACTORY  
AUTHORIZED  
PARTS**



A96281

1. Heavy-duty blower circulates air across the heat exchanger to transfer heat into the home.
2. Access door to air filters and blower.
3. Air filters
4. Unique silencer system controls combustion noise.
5. Return-air plenum
6. Stainless steel combustion chamber
7. Heat exchanger designed and shaped to efficiently transfer heat from furnace into the home.
8. Supply-air plenum
9. Fully insulated internal walls to minimize heat loss.
10. High limit control to prevent overtemperature.
11. Manual switch to allow user control of constant low-speed blower operation.
12. Adjustable electronic fan timer control (inside) has low voltage electrical terminal strip for easy connection of thermostat, cooling control, electronic air cleaner, and humidifier.
13. Aesthetic removable cover. Hides and protects burner and controls.
14. High-performance oil burner

**PHYSICAL DATA**



A98009

**DIMENSIONS (IN.)**

UNIT SIZE	UNIT DIMENSIONS			FLUE HEIGHT C	RETURN OPENING D	SUPPLY OPENING E	VENT CONN
	Width	Depth					
		A	B				
CBLAAA105	21-1/4	53-3/4	31-1/2	26-1/2	20	20	5
CBLAAA120	21-1/4	60-3/16	34-3/4	28-3/8	22	24	6

## RATINGS AND PERFORMANCE

UNIT SIZE	CBLAAA105			CBLAAA120		
INPUT (BTUH)*	70,000	91,000	105,000	119,000	140,000	154,000
HEATING CAPACITY	57,000	74,000	85,000	97,000	114,000	123,000
NOZZLE	0.50 - 70W	0.55 - 70B	0.65 - 70B	0.75 - 70B	0.85 - 70B	0.85 - 70B
PRESSURE (PSIG)	100	140	130	130	140	170
FIRING RATE (GPH)	0.50	0.65	0.75	0.85	1.00	1.10
AFUE%	82.6	81.1	81.4	81.5	80.6	80.3
OIL PUMP STAGES	1	1	1	1	1	1
HEATING TEMP RISE _F	55-85	55-85	55-85	55-85	55-85	55-85
COOLING CFM @ 0.5-IN. WC STATIC PRESSURE	1250	1250	1250	1865	1865	1865
HEATING CFM @ 0.2-IN. WC STATIC PRESSURE	840	1130	1425	1555	1890	2080
RECOMMENDED HEATING BLOWER SPEED	Med-Low	Med-High	High	Med-Low	Med-Low	High
BURNER MODEL (3450 RPM)	BECKETT AFG-F3	BECKETT AFG-F3	BECKETT AFG-F3	BECKETT AFG-F3	BECKETT AFG-F3	BECKETT AFG-F6 **

\* Capacity and AFUE in accordance with U.S. Government DOE test procedures.

\*\* Beckett AFG-F6 replacement burner firing head required - field supplied.

- - Shaded cells are as Factory Shipped.

UNIT SIZE	CBLAAA105	CBLAAA120
DIRECT-DRIVE MOTOR Hp (PSC)	1/3	3/4
MOTOR FULL LOAD AMPS	6.2	9.5
RPM (Nominal) - SPEEDS	1075-4	1075-4
BLOWER WHEEL DIAMETER X WIDTH (In.)	10 x 8	12 x 10
SHIPPING WEIGHT (LB)	225	266
FILTER SIZE (In.) - (Disposable)	(2) 12 x 20 x 1	(2) 16 x 20 x 1

## AIR DELIVERY -CFM (WITH FILTERS)

UNIT SIZE	BLOWER MOTOR HP	SPEED	EXTERNAL STATIC PRESSURE (in wc)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
CBLAAA105	1/3 PSC	High	1425	1350	1305	1250	1170	1030	925	805
		Med-High	1130	1045	1000	950	885	820	745	670
		Med-Low	840	810	770	740	685	635	580	500
		Low	725	730	740	745	730	715	690	665
CBLAAA120	3/4 PSC	High	2080	2040	1965	1865	1700	1575	1475	1335
		Med-High	1890	1860	1770	1675	1550	1450	1330	1215
		Med-Low	1555	1475	1395	1320	1210	1135	1050	940
		Low	1220	1165	1080	1000	925	855	780	655

## ELECTRICAL DATA

UNIT SIZE		CBLAAA105	CBLAAA120
UNIT VOLTS-HERTZ - PHASE		115 - 60 - 1	115 - 60 - 1
OPERATING VOLTAGE RANGE (Min-Max)*		104 - 132	104 - 132
MAXIMUM UNIT AMPS		12.2	15.7
MINIMUM WIRE SIZE (AWG)		14	12
MAXIMUM WIRE LENGTH (Ft)**		26	26
MAXIMUM FUSE SIZE OR CKT BKR (Amps)***		15	20
TRANSFORMER (24v)		40va	40va
EXTERNAL CONTROL POWER AVAILABLE	Heating	40va	40va
	Cooling	30va	30va
AIR CONDITIONING RELAY		Standard	Standard

\* Permissible limits of the voltage range at which the unit will operate satisfactorily.

\*\* Length is a measured one way along wire path between unit and service panel for maximum 2% voltage drop.

\*\*\* Time-delay fuse type is recommended.

## CLEARANCE TO COMBUSTIBLES

	UNIT APPLICATION	LOW-BOY
SIDES	Furnace	1
	Supply Plenum and Warm-Air Duct Within 6 Ft of Furnace	1
BACK	Service Clearance	19
TOP	Furnace Casing or Plenum	2
	Horizontal Warm-Air Duct Within 6 Ft of Furnace	2
FLUE PIPE	Horizontally or Below Pipe	4
	Vertically Above Pipe	9
	FRONT	8
	BOTTOM*	0

\*Floor may be combustible.

**NOTE:** Adequate service clearance should be provided over and above these dimensions as required.

## ACCESSORIES

FURNACE ACCESSORIES	
KLABV0201DET	Blocked Vent Shutoff Kit