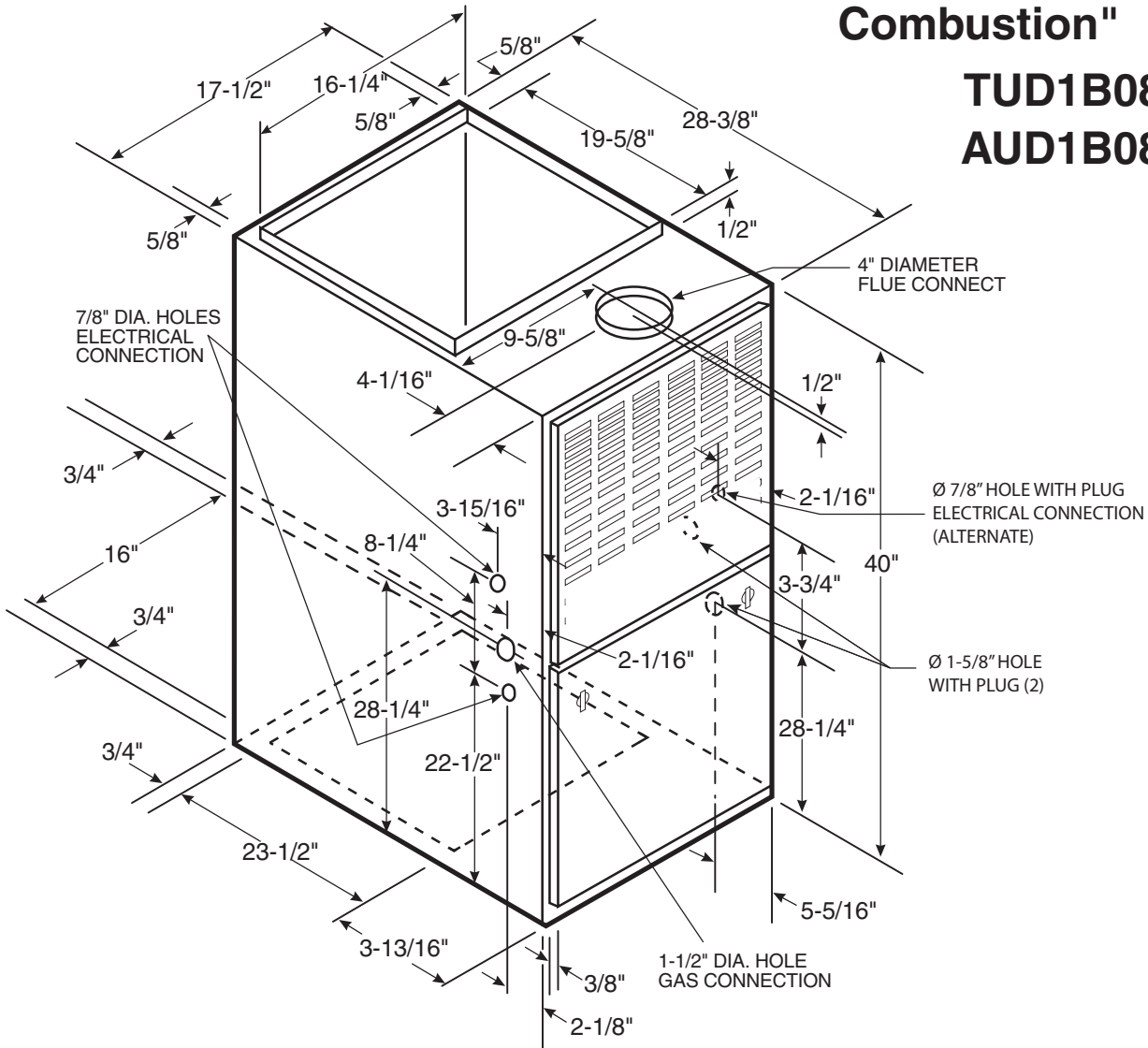


TAG: \_\_\_\_\_

# SUBMITTAL

## Upflow/Horizontal Gas Furnace "Fan-Assisted Combustion"

**TUD1B080A9481B**  
**AUD1B080A9481B**



**FURNACE AIRFLOW (CFM) VS. EXTERNAL STATIC PRESSURE (IN. W.C.)**

MODEL	SPEED TAP	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
TUD1B080A9481B AUD1B080A9481B	4 - HIGH - Black	1839	1821	1796	1756	1710	1641	1573	1480	1392
	3 - MED.-HIGH - Blue	1323	1325	1329	1319	1308	1275	1246	1201	1165
	2 - MED.-LOW - Yellow	1092	1090	1091	1083	1076	1059	1040	1005	970
	1 - LOW - Red	788	783	780	768	758	737	719	674	630

MODEL	CFM VS. TEMPERATURE RISE CFM (CUBIC FEET PER MINUTE)									
	1000	1100	1200	1300	1400	1500	1600	1700	1800	
TUD1B080A9481B AUD1B080A9481B	59	54	49	46	42	40	37	35	33	

# General Data ①

<b>TYPE</b>	Upflow/Horizontal	<b>VENT COLLAR — Size (in.)</b>	4 Round
<b>RATINGS ②</b>		<b>HEAT EXCHANGER</b>	
Input BTUH	80,000	Type-Fired	Alum. Steel
Capacity BTUH (ICS) ③	64,000	-Unfired	
AFUE	80.0	Gauge (Fired)	20
Temp. rise (Min.-Max.) °F.	30 - 60	<b>ORIFICES — Main</b>	
<b>BLOWER DRIVE</b>	DIRECT	Nat. Gas. Qty. — Drill Size	4 — 45
Diameter-Width (In.)	10 x 8	L.P. Gas Qty. — Drill Size	4 — 56
No. Used	1	<b>GAS VALVE</b>	Redundant-Single Stage
Speeds (No.)	4	<b>PILOT SAFETY DEVICE</b>	
CFM vs. in. w.g.	See Fan Performance	Type	Hot Surface Ignition
Motor HP	1/3	<b>BURNERS — Type</b>	Multiport Inshot
R.P.M.	1075	Number	4
Volts/Ph/Hz	115/1/60	<b>POWER CONN. — V/Ph/Hz ④</b>	115/1/60
<b>COMBUSTION FAN - Type</b>	Centrifugal	Ampacity (In Amps)	9.8
Drive - No. Speeds	Direct - 1	Max. Overcurrent Protection (amps)	15
Motor HP - RPM	1/50 - 3180	<b>PIPE CONN. SIZE (IN.)</b>	1/2
Volts/Ph/Hz	115/1/60	<b>DIMENSIONS</b>	H x W x D
F.L. Amps	1.09	Crated (In.)	41- 3/4 x 19-1/2 x 30-1/2
<b>FILTER — Furnished?</b>	No	Uncrated (In.)	40 x 17-1/2 x 28
Type Recommended	High Velocity	<b>WEIGHT</b>	
Hi Vel. (No.-Size-Thk.)	1 - 17x25 - 1in.	Shipping (Lbs.)/Net (Lbs)	142 / 132

① Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3

② Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet; Ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

③ Based on U.S. Government Standard Tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.

## Mechanical Specifications

**NATURAL GAS MODELS** — Central heating furnace designs are certified to ANSI Z21.47 / CSA 2.3 for both natural and L.P. gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

**SAFE OPERATION** — The Integrated System Control has solid state devices, which continuously monitor for presence of flame, when the system is in the heating mode of operation. Dual solenoid combination gas valve and regulator provide extra safety.

**QUICK HEATING** — Durable, cycle tested, heavy gauge **aluminized steel heat exchanger** quickly transfers heat to provide warm conditioned air to the structure. **Low energy power vent blower**, to increase efficiency and provide discharge of gas fumes to the outside, allows common venting with hot water heater.

**BURNERS** — Multi-port, in-shot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas** without changing burners.

**INTEGRATED SYSTEM CONTROL** — Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self diagnostics for ease of service.

**AIR DELIVERY** — The multispeed, direct-drive blower motor, with sufficient airflow range for most heating and cooling requirements, will switch from heating to cooling speeds on demand from room thermostat. The blower door safety switch will prevent or terminate furnace operation when the blower door is removed. (Fan relay and 35VA control transformer is standard).

**AIR LEAKAGE** — Air leakage less than 2% of design airflow rate in accordance with ASHRAE 193.

**STYLING** — **Heavy gauge steel and "wraparound" cabinet construction** is used in the cabinet with baked-on enamel finish for strength and beauty. The heat exchanger section of the cabinet is completely lined with foil-faced fiberglass insulation. This results in quiet and efficient operation due to the excellent acoustical and insulating qualities of fiberglass.

**FEATURES AND GENERAL OPERATION** — These High Efficiency Gas Furnaces employ a Hot Surface Ignition system, which eliminates the waste of a constantly burning pilot. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

- Low energy power venter.
- Vent proving differential switch.

Since Ingersoll Rand has a policy of continuous product and product data improvement, it reserves the right to change specifications and design without notice.

Technical Literature - Printed in U.S.A.

Ingersoll Rand  
6200 Troup Highway  
Tyler, TX 75707



Library	-
Product Section	-
Product	Furnace
Model	TUD1
Literature Type	Submittal
Sequence	-
Date	05/16
File No.	TUD1B080-SUB-3C
Supersedes	TUD1B080-SUB-3B