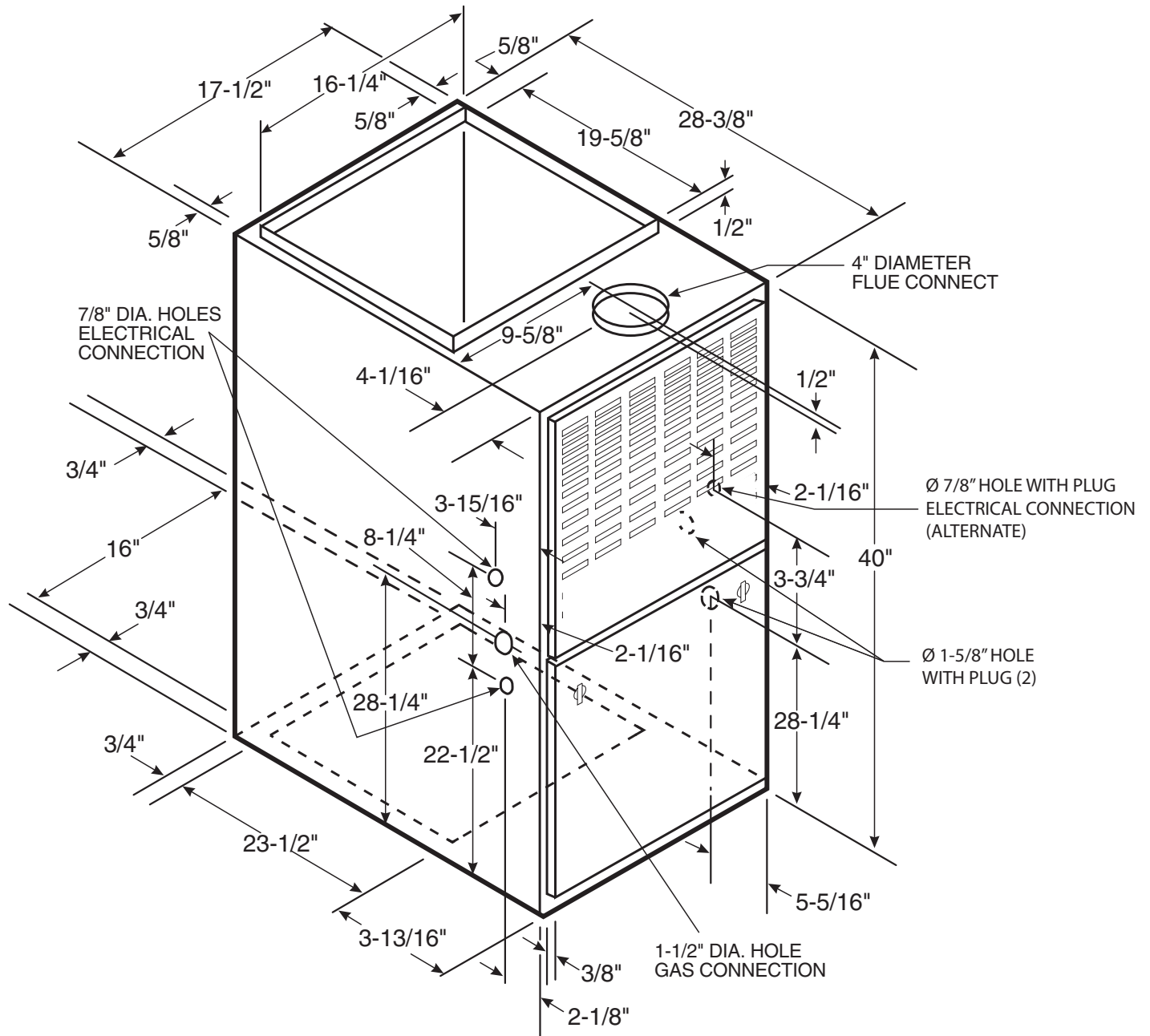


TAG: _____

SUBMITTAL

TUD2B080ACV32B
AUD2B080ACV32B

**Communicating or 24V
 non-communicating
 Upflow/Horizontal Left
 Direct/Non-Direct Vent
 2 Stage Gas Furnace with
 Variable Speed Inducer**



***UD2B080ACV Airflow - Heating**

*UD2B080ACV32B Furnace Heating Airflow (CFM) and Power (Watts) vs. External Static Pressure			0.1	0.3	0.5	0.7	0.9
HEATING 1ST STAGE	780	CFM	804	833	849	863	873
		TEMP RISE	48	46	45	44	44
		WATTS	66	110	190	229	278
	897	CFM	930	950	958	960	958
		TEMP RISE	41	40	40	40	40
		WATTS	102	153	250	283	328
	955.5	CFM	993	1009	1012	1008	1001
		TEMP RISE	39	38	38	38	38
		WATTS	124	176	279	308	350
HEATING 2ND STAGE	1200	CFM	1258	1255	1239	1210	1179
		TEMP RISE	47	47	48	49	50
		WATTS	241	279	395	396	423
	1380	CFM	1453	1436	1407	1359	1310
		TEMP RISE	41	41	42	43	45
		WATTS	354	362	475	446	457
	1470	CFM	1550	1526	1490	1433	1375
		TEMP RISE	38	39	40	41	43
		WATTS	419	407	513	465	467

***UD2B080ACV Airflow - Cooling**

*UD2B080ACV32B Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter			0.1	0.3	0.5	0.7	0.9
OD	AIRFLOW						
2.5	290	CFM	709	736	734	727	716
		WATTS	74	115	148	183	218
	350	CFM	916	937	939	936	929
		WATTS	109	154	193	233	272
	400	CFM	1060	1071	1073	1072	1067
		WATTS	156	204	250	295	340
	450	CFM	1199	1208	1207	1209	1209
		WATTS	216	269	322	374	428
3**	290	CFM	878	891	897	886	875
		WATTS	117	158	200	238	276
	350	CFM	1110	1124	1125	1125	1121
		WATTS	178	227	275	323	369
	400**	CFM	1277	1281	1282	1289	1291
		WATTS	263	318	375	434	493
	450	CFM	1445	1444	1445	1375	1300
		WATTS	370	433	498	503	502
3.5	290	CFM	1040	1044	1049	1042	1034
		WATTS	172	220	269	315	359
	350	CFM	1303	1302	1300	1299	1296
		WATTS	281	335	390	444	498
	400	CFM	1485	1496	1453	1374	1298
		WATTS	415	477	507	503	500
	450	CFM	1603	1530	1450	1369	1288
		WATTS	514	510	505	501	498

NOTES:

- *FIRST LETTER MAY BE "A" OR "T"
- **FACTORY SETTING
- CONTINUOUS FAN SPEED SETTING: HEATING OR COOLING AIRFLOW IS APPROXIMATELY 50% OF SELECTED COOLING VALUE.
- WITH VARIABLE SPEED OUTDOOR UNIT APPLICATION, THE LOW SPEED AIRFLOWS ARE APPROXIMATELY 30% OF LISTED VALUES.
- LOW 350 CFM/TON IS RECOMMENDED FOR VARIABLE SPEED APPLICATIONS FOR COMFORT & HUMID CLIMATE SETTING: NORMAL IS 400 CFM/TON: HIGH 450 CFM/TON IS FOR DRY CLIMATE SETTING.
- CONTINUOUS FAN MODE DURING COOLING OPERATION MAY NOT BE APPROPRIATE IN HUMID CLIMATES. IF THE INDOOR AIR EXCEEDS 60% RELATIVE HUMIDITY OR SIMPLY FEELS UNCOMFORTABLY HUMID, IT IS RECOMMENDED THAT THE FAN ONLY BE USED IN THE AUTO MODE.

Airflow Adjustment

Check inlet and outlet air temperatures to make sure they are within the range specified on the Furnace rating nameplate. If the airflow needs to be increased or decreased, see the Airflow Label on the Furnace or the unit's Service Facts for information on changing the speed of the Blower Motor for your specific model. Blower speed changes are made on the User Interface.

INDOOR BLOWER TIMING

Heating: The Integrated Furnace Control module controls the Indoor Blower. The Blower start is fixed at 45 seconds after ignition. The FAN-OFF period is field selectable by the User Interface at 60, 100, 140, or 180 seconds. The factory setting is 100 seconds.

PRODUCT SPECIFICATIONS ^①

MODEL	*UD2B080ACV32B
TYPE	Upflow/Horizontal
RATINGS ^②	
1st Stage Input BTUH	52,000
1st Stage Capacity BTUH (ICS) ^③	41,600
2nd Stage Input BTUH	80,000
2nd Stage Capacity BTUH (ICS) ^③	64,000
Temp. rise (Min.-Max.) °F.	30 - 60
BLOWER DRIVE ^⑦	Direct
Diameter - Width (In.)	10 x 7
No. Used	1
Speeds (No.)	Variable
CFM vs. in. w.g.	See Airflow Table
Motor HP	1/2
R. P.M.	Variable
Volts / Ph / Hz	115/1/60
FLA	5.2
COMBUSTION FAN — Type	Centrifugal
Drive - No. Speeds	Direct - 2
Motor HP - RPM	1/100 - 2543/1727
Volts / Ph / Hz	115/1/60
FLA	0.70/0.40
FILTER — Furnished?	Yes
Type Recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 17x25 - 1in.
VENT — Size (In.)	4 Round
HEAT EXCHANGER	
Type -Fired	Alum. Steel - Type 1
-Unfired	
Gauge (Fired)	20
ORIFICES — Main	
Nat. Gas. Qty. — Drill Size	4 — 45
L.P. Gas Qty. — Drill Size	4 — 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE	
Type	Hot Surface Ignition
BURNERS — Type	Multi-port In-shot
Number	4
POWER CONN. — V/Ph/Hz ^④	115/1/60
Ampacity (In Amps)	7.8
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (In.)	1/2
DIMENSIONS	H x W x D
Crated (In.)	41-3/4 x 19-1/2 x 30-1/2
WEIGHT	
Shipping (Lbs.)/Net (Lbs.)	142 / 132

* May be "T" or "A"

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

② For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level.

For Canadian applications, above input ratings (BTUH) are up to 4,500 feet, derate 4% per 1,000 feet for elevations above 4,500 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.

⑤ Furnace ships in natural gas configuration. The LP conversion kit used with the 2 stage furnace is BAYLPSS210B or BAYLPKT210B.

⑥ First stage output capacity is approximately equal to 65% of second stage capacity.

⑦ Direct drive variable speed blower motor is an ECM constant airflow blower motor.

Mechanical Specifications

COMMUNICATING MODE

Furnace is shipped ready to be connected in communicating mode using three wire hook-up using T/ACONT900 comfort control.

ALTERNATE 24V MODE

Furnace is field configurable to 24V non-communicating mode.

COMFORT CONTROL

Communicating furnace design, offers plug and play – walk away installation. Assures the entire heating and air conditioning system is set up in the proper modes to optimize the engineered performance of the matched system installed.

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 a positive discharge of gas fumes to the outside.

BURNERS

Multiport In-shot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas**.

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. Also includes connection points for E.A.C./humidifier.

AIR DELIVERY

The variable speed, direct drive blower motor, has sufficient airflow 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.

ENERGY EFFICIENT OPERATION

Furnace is certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to .5" water column with all inlets, outlets, and drains sealed.

STYLING

Heavy gauge steel and "wrap-around" 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. Built-in bottom pan and alternate bottom, left or right side return air connection provision.

FEATURES AND GENERAL OPERATION

The High Efficiency Gas Furnace employs a Hot Surface Ignition system, which eliminates the waste of a constant burning pilot. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

- a. Low energy power venter
- b. Vent proving pressure switch.

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

Ingersoll Rand
6200 Troup Highway
Tyler, TX 75711-9010



Publication Number	TUD2B080ACV-SUB-1E
Supersedes	TUD2B080ACV-SUB-1D
Date	12/16

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