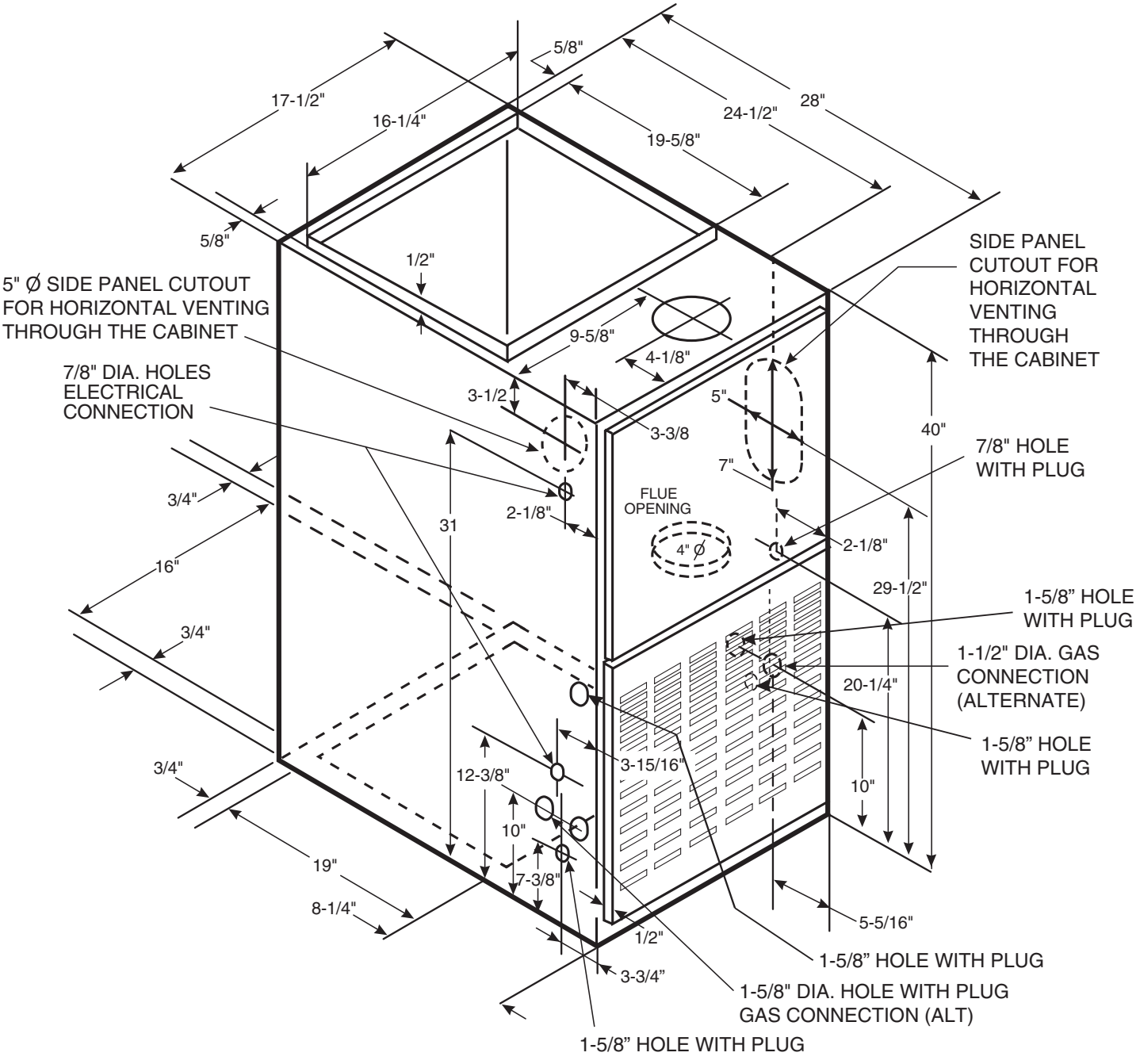
TAG: _____

SUBMITTAL

TDD2B080ACV32B
ADD2B080ACV32B

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



***DD2B080ACV Airflow - Heating**

*DD2B080ACV32B Furnace Heating Airflow (CFM) and Power (Watts) vs. External Static Pressure							
			0.1	0.3	0.5	0.7	0.9
HEATING 1ST STAGE	650	CFM	644	680	695	703	717
		TEMP RISE	60	56	55	55	53
		WATTS	66	91	108	129	167
	728	CFM	723	754	766	770	778
		TEMP RISE	53	51	50	50	49
		WATTS	70	106	134	164	203
	819	CFM	816	841	849	848	849
		TEMP RISE	47	46	45	45	45
		WATTS	82	127	167	205	244
HEATING 2ND STAGE	1000	CFM	1001	1013	1014	1005	990
		TEMP RISE	59	58	58	59	60
		WATTS	131	186	237	284	319
	1120	CFM	1123	1128	1123	1108	1083
		TEMP RISE	53	52	53	53	54
		WATTS	181	236	288	335	365
	1260	CFM	1266	1261	1250	1229	1192
		TEMP RISE	47	47	47	48	49
		WATTS	256	306	351	394	413

***DD2B080ACV Airflow - Cooling**

*DD2B080ACV32B Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter							
OD	AIRFLOW		0.1	0.3	0.5	0.7	0.9
2.5	290	CFM	723	742	738	726	715
		WATTS	63	98	130	162	196
	350	CFM	871	891	891	881	868
		WATTS	94	138	176	210	247
	400	CFM	1006	1019	1022	1013	1000
		WATTS	134	182	224	265	307
	450	CFM	1123	1131	1129	1120	1108
		WATTS	182	235	282	326	367
3.0	290	CFM	868	891	884	877	866
		WATTS	95	137	176	208	245
	350	CFM	1055	1059	1063	1052	1045
		WATTS	155	199	246	288	329
	400	CFM	1193	1192	1202	1200	1193
		WATTS	216	266	320	372	422
	450	CFM	1355	1359	1359	1356	1300
		WATTS	308	368	427	484	500
3.5	290	CFM	1026	1039	1040	1029	1017
		WATTS	142	188	232	272	311
	350	CFM	1225	1231	1239	1235	1231
		WATTS	224	281	336	386	437
	400	CFM	1412	1408	1410	1397	1319
		WATTS	333	390	462	509	504
	450	CFM	1596	1544	1469	1387	1315
		WATTS	492	516	512	509	508

NOTES:
1. *FIRST LETTER MAY BE “A” OR “T’
2. **FACTORY SETTING
3. CONTINUOUS FAN SPEED SETTING: HEATING OR COOLING AIRFLOW IS APPROXIMATELY 50% OF SELECTED COOLING VALUE.
4. WITH VARIABLE SPEED OUTDOOR UNIT APPLICATION, THE LOW SPEED AIRFLOWS ARE APPROXIMATELY 30% OF LISTED VALUES.
5. 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.
6. 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	*DD2B080ACV32B
TYPE	Downflow / 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	63,000
Temp. rise (Min.-Max.) ˚F.	35 - 65
BLOWER DRIVE ⑥⑦	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	6.4
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.)	2 - 14x20 - 1in.
VENT — Size (In.)	4 Round
HEAT EXCHANGER	
Type -Fired	Alum. Steel - Type 1
-Unfired	
Gauge (Fired)	20
ORIFICES — Main ⑤	
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)	8.4
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.)	146 / 136

* 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
The 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 by the American Gas Association 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 Furnaces employ 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.

About Trane and American Standard Heating and Air Conditioning
Trane and American Standard create comfortable, energy efficient indoor environments for residential applications.
For more information, please visit www.trane.com or www.americanstandardair.com

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Supersedes TDD2B080ACV-SUB-1F-EN (December 2019)