# TUD2B060ACV-SUB-1E



### \*UD2B060ACV Airflow - Heating

*UD2B060ACV32B Furnace Heating Airflow (CFM) and Power (Watts) vs. External Static							
Pressure							
			0.1	0.3	0.5	0.7	0.9
HEATING 1ST STAGE	533	CFM	523	551	551	547	541
		TEMP RISE	55	52	52	53	53
		WATTS	52	83	103	119	150
	650	CFM	651	674	673	667	657
		TEMP RISE	44	43	43	43	44
		WATTS	76	110	129	145	184
	689	CFM	694	714	714	707	696
		TEMP RISE	41	40	40	41	41
		WATTS	87	122	140	155	197
		CFM	838	851	850	841	826
	820	TEMP RISE	53	52	52	53	54
		WATTS	135	171	187	197	243
HEATING 2ND STAGE	1000	CFM	1035	1039	1038	1024	1006
		TEMP RISE	43	43	43	43	44
		WATTS	227	263	277	271	318
	1060	CFM	1101	1102	1101	1086	1066
		TEMP RISE	40	40	40	41	42
		WATTS	265	300	313	301	346

## \*UD2B060ACV Airflow - Cooling

*UD2B06	60ACV32B	Furnace Cooli	ng Airflow (	CFM) and F	Power (Watt	s) vs. Exter	nal Static
			Pressure v	vith Filter			
OD	AIRFLOW		0.1	0.3	0.5	0.7	0.9
1.5	290	CFM	371	433	442	439	429
		WATTS	28	57	84	110	137
	350	CFM	547	571	573	564	549
		WATTS	40	68	96	125	152
	400	CFM	633	647	643	633	618
		WATTS	52	83	111	141	171
	450	CFM	701	715	711	704	694
		WATTS	64	97	128	160	193
	200	CFM	546	573	574	567	554
	290	WATTS	49	80	108	139	168
	350	CFM	725	739	738	728	717
20	330	WATTS	70	104	137	166	201
2.0	400	CFM	832	842	837	829	817
	400	WATTS	94	131	166	201	237
	450	CFM	935	943	939	930	921
	430	WATTS	122	163	202	239	278
	200	CFM	697	716	712	704	693
	290	WATTS	74	110	145	177	211
	250	CFM	909	915	911	904	895
25	330	WATTS	116	155	193	230	266
2.5	400	CFM	1040	1042	1043	1038	1027
	400	WATTS	160	204	247	291	332
	450	CFM	1178	1176	1175	1169	1164
	430	WATTS	220	270	318	365	413
	290	CFM	849	860	859	850	836
		WATTS	114	155	196	230	268
	350	CFM	1099	1097	1097	1089	1082
3.0	300	WATTS	183	228	274	318	363
3.0	400	CFM	1253	1250	1250	1243	1238
		WATTS	258	312	364	415	466
	450	CFM	1406	1403	1405	1354	1281
	400	WATTS	363	420	484	503	500

NOTES:

1. \*FIRST LETTER MAY BE "A" OR "T' 2. \*\*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:

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 <u>UNCOMFORTABLY HUMID</u>, 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** <sup>()</sup>

MODEL	*UD2B060ACV32B
ТҮРЕ	Upflow/Horizontal
RATINGS (2)	
1st Stage Input BTUH	39.000
1st Stage Capacity BTUH (ICS) ③	31,200
2nd Stage Input BTUH	60.000
2nd Stage Capacity BTUH (ICS) ③	48.000
Temp, rise (Min -Max.) °F.	30 - 60
BLOWER DRIVE (7)	Direct
Diameter - Width (In )	10 x 7
No Lised	1
Speeds (No.)	Variable
CEM vs in wa	See Airflow Table
Motor HP	1/2
R DM	Variablo
Volte / Ph / Hz	115/1/60
	F 0
	0.2 Contrifugal
Drive No Speede	Direct 2
Motor HD DDM	DIFECT - 2
	1/100 - 2543/1727
Volts/Pn/Hz	115/1/60
	0.70/0.40
FILTER — Furnished?	Yes
lype Recommended	High Velocity
Hi Vel. (NoSize-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	3 — 45
L.P. Gas Qty. — Drill Size	3 — 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE	
Туре	Hot Surface Ignition
BURNERS — Type	Multi-port In-shot
Number	3
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.)	136 / 126

\* 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.

 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.

#### 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 noncommunicating 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



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