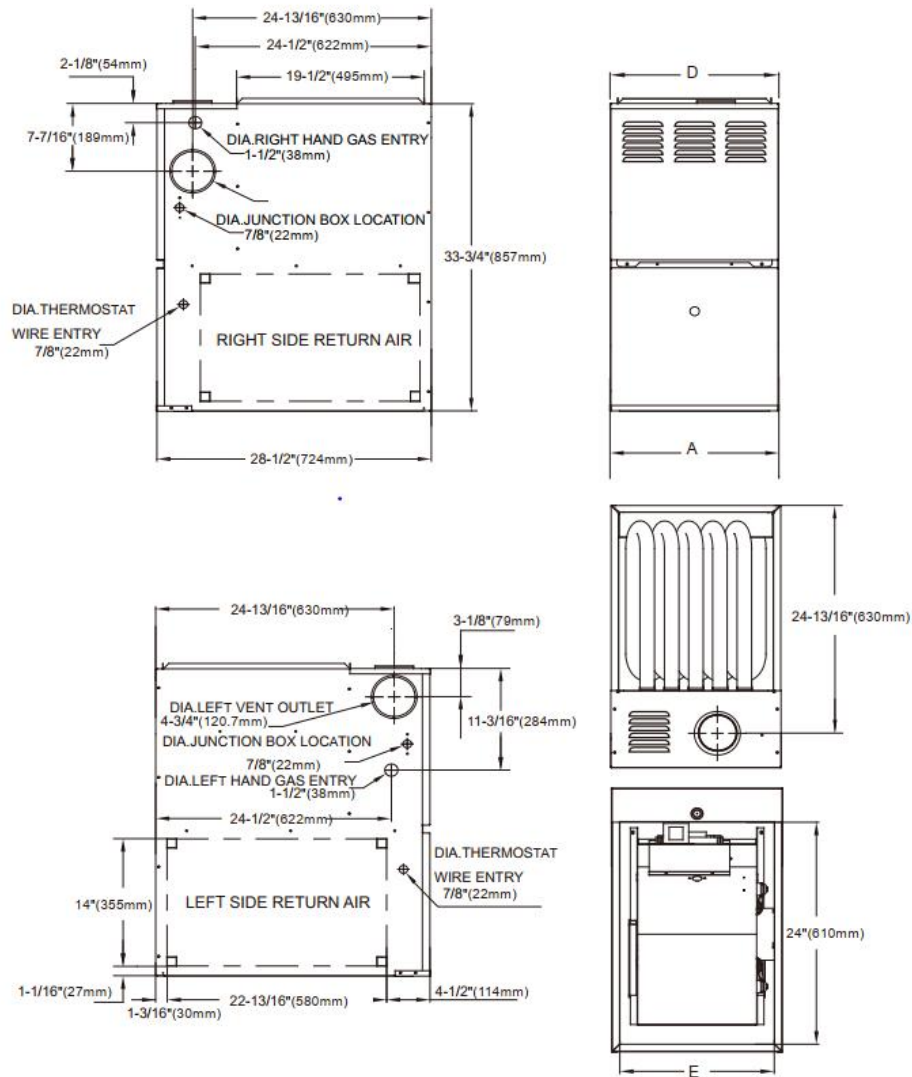


Submittal

TAG:

TGF80 Series

Heating capacity: 20–120 kBTU/h



FURNACE SIZE	A CABINET WIDTH IN.	D SUPPLY AIR WIDTH IN.	E RETURN AIR WIDTH IN.	SHIP WT (lbs)
120D5A	24.5	23	22-27/32	170

Specifications

	TGF80M120D5A
FUEL TYPE	Natural/Propane Gas
GAS HEATING PERFORMANCE	
Input (BTU/h)	120000
Natural Gas	96,000
LP Gas	96,000
AFUE	80
Available AC @ 0.5" ESP	3.5/4/4.5/5
Temperature Rise Range (° F)	35-65
ELECTRICAL DATA	
Voltage/Phase (60Hz)	115
Min. / Max. Voltage (V)	104/127
Min. Circuit Ampacity (MCA) (A)	13
Max. Overcurrent Protection (MOP) (A)	20
FAN MOTOR	
Motor Type	ECM
Horsepower (HP)	1
Rated RPM	1050
Full Load Amps (FLA) (A)	14
Capacitor (uF)	\
CIRCULATOR BLOWER	
Material	Metal
Type	Centrifugal
Size (D x H) (in.)	12-6/8 x 11-1/4
Vent Diameter (in.)	3/4
No. of Burners	7
Speed Mode Number	5

Consumption system specifications

Model			120D5A
Max. Inlet Gas Press	10.5	in.w.c	10.5
	13	in.w.c	13
Min. Inlet Gas Press	4.5	in.w.c	4.5
	11	in.w.c	11
Natural Gas Manifold Pressure (High/Low fire)		3.9	3.0
Propane Gas Manifold Pressure (High/Low fire)		10.5	10
Natural Gas Factory Orifice (0-2000 feet)		49	50
Propane Gas (LP) Factory Orifice (0-2000 feet)		56	59
Gas Connection Size		3/4	3/4
Igniton Device Hot surface			
Number of Burners		7	3
Primary Heat exchanger Diameter		1-1/2	1-1/2
Primary Heat exchanger		7	3
Flue Vent Diameter		1-57/64	1-3/16
Safety Switch Settings			
Pressure Switch Factory Setting		0.55 in. w.c	0.55
Rollout switch - resettable		300 °F	300
Inlet High Temperature Limit switch - fixed		180/ 150 °F	180/150

Airflow Data

Air Delivery - CFM without filter

FURNACE SIZE	SPEED	STATIC PRESSURE	0	0.2	0.4	0.6	0.8	1
120D	H	[SCFM]	1951	1910	1896	1929	1981	1917
		Temp.Rise °F	38	39	39	39	38	39
	MH	[SCFM]	1751	1775	1749	1772	1786	1771
		Temp.Rise °F	43	42	43	42	42	42
	M	[SCFM]	1501	1570	1575	1569	1543	1544
		Temp.Rise °F	50	48	47	48	48	48
	ML	[SCFM]	1348	1420	1410	1416	1412	1400
		Temp.Rise °F	55	53	53	53	53	53
	L	[SCFM]	1148	1210	1196	1174	1179	1175
		Temp.Rise °F	/	/	/	/	/	/

Filter Size Information - In.

FURNACE CASING WIDTH (IN.)	FILTER SIZE		FILTER TYPE
	SIDE RETURN (IN.)	BOTTOM RETURN (IN.)	
14-1/2	16 X 25	14 X 25	High Velocity (600 FPM)
17-1/2	16 X 25	16 X 25	
21	16 X 25	20 X 25	
24.5	16 X 25	24 X 25	

Minimum Area in Square Inch Required for Each Opening

BTUH Input Rating	Minimum Free Area in Square Inch Required for Each Opening
40,000	40 in ²
60,000	60 in ²
80,000	80 in ²
100,000	100 in ²
120,000	120 in ²

Minimum Free Area Required for Each Opening

BTUH Input Rating	Minimum Free Area Required for Each Opening		
	Horizontal Duct (2,000 BTUH)	Vertical Duct or Opening to Outside (4,000 BTUH)	Round Duct (4,000 BTUH)
40,000	20 in ²	10 in ²	4"
60,000	30 in ²	15 in ²	5"
80,000	40 in ²	20 in ²	5"

Piston

High Altitude Derate Orifice Size Chart (Natural and LP Gas*)

Input Rate kBTU/H	Number of Burner	Elevation (Ft)									
		0-2000		2000-4000		4000-6000		6000-8000		8000-10000	
		Nat	LP	Nat	LP	Nat	LP	Nat	LP	Nat	LP
120D	7	49	56	50	57	51	58	52	59	53	61

*LP orifice based on 10 in.w.c manifold pressure

The input to the furnace must be checked AFTER reorificing.

High Altitude Derate Orifice Size Chart (Natural and LP Gas*)

Input Rate kBTU/H	Number of Burner	Elevation (Ft)									
		0-2000		2000-4000		4000-6000		6000-8000		8000-10000	
		Nat	LP	Nat	LP	Nat	LP	Nat	LP	Nat	LP
120D	7	49	56	50	57	51	58	52	59	53	61

*LP orifice based on 10 in.w.c manifold pressure

The input to the furnace must be checked AFTER reorificing.

Features

- Durable aluminized steel tubular heat exchanger.
- Hot-surface ignition for dependable operation.
- Quiet multi-speed direct-drive Blower.
- Natural gas and propane (LP) convertible.
- R454b refrigerant leakage sensor adaptable
- UL60335-2-40 certified.
- Designed for multi-position installation: Up flow, down flow, horizontal.
- Industry-standard cabinet sizes for easy replacement, installation and add-on cooling.
- Convenient left or right connection for gas and electric service.
- Removable bottom for side or bottom return application.

