

TZ92DH- SERIES ECM Equipped Models with Input Rates of 60,000, 75,000, 90,000 & 105,000 BTU/HR [17.58, 22, 26.38 & 30.77 kW]

Manufactured for

Thermal Zone®

Philadelphia, PA















95% A.F.U.E. WITH *DUAL COMFORT CONTROL*™ TWO-STAGE DOWNFLOW/ HORIZONTAL GAS FURNACES

The Thermal Zone® 95% A.F.U.E. with *Dual Comfort Control™* line of downflow/horizontal gas furnaces are designed for utility rooms, closets, alcoves, or attics. The TZ92DH is shipped in the downflow configuration and is easily converted for horizontal **left-hand** airflow applications.

The design is certified by CSA.

Features

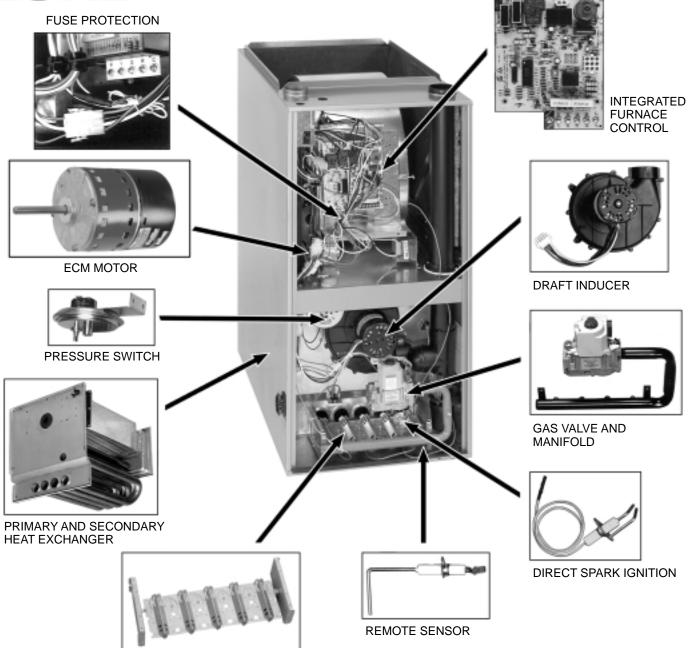
- Two stages of operation to save energy and maintain optimal comfort level.
- Furnace operates at 70% capacity for low-heat and 100% capacity for high-heat.
- Compatible with single or two-stage thermostat. (For optimal performance a two-stage thermostat is recommended.)
- Heat exchanger is constructed of all stainless steel for maximum corrosion resistance and thermal fatigue reliability.
- Low profile "34 inch" design is lighter and easier to handle and leaves room for optional accessories.
- Left or right side gas, electric, and condensate drainage connections.
- Integrated control board manages all operational functions and provides hookups for humidifier and electronic air cleaner.
- An insulated blower compartment, a slow-opening gas valve and a specially designed inducer system make it one of the quietest furnaces on the market today.
- Variable speed blower motor technology provides ultimate humidity control, quieter sound levels and year-round energy savings.
- Optional indoor or outdoor combustion air. In addition, combustion air may be piped to either the top or side of the cabinet on all downflow models. A special molded fitting is provided to ease installation.
- Solid bottom is standard.
- Control board diagnostics.

A variety of cooling coils and plenums designed to use with the Thermal Zone® 95% A.F.U.E. gas furnaces are available as optional accessories for air conditioning models.

†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.



90 PLUS HIGH EFFICIENCY DOWNFLOW/HORIZONTAL GAS FURNACE



STANDARD EQUIPMENT

Completely assembled and wired; heat exchanger; primary: 409 stainless steel, secondary: 29-4C stainless steel; induced draft; pressure switches; redundant main gas control; blower compartment door safety switch; solid state time on/off blower control; limit controls; manual shut-off valve; 100% safety lock out; cool fan off delay; field selectable heat fan off delay; one hour automatic retry; power and self-test diagnostics; flame sense current diagnostics; electronic air cleaner connections; twinning (built-in) features; humidifier connections; humidifier on/off delay; low speed continuous fan option; single speed option for heating and cooling applications; pressure regulator for natural and L.P. (propane) gasses; transformer; direct drive, multi-speed blower motor. (Please note: a thermostat is not included as standard equipment.)

IN-SHOT BURNERS

OPTIONAL EQUIPMENT

Side and bottom filter racks; return air cabinet for all sizes.

NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

All models can be converted by a qualified distributor or local service dealer to use L.P. (propane) gas without changing burners. Factory approved kits must be used to convert from natural to L.P. (propane) gas and may be ordered as optional accessories from a parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form.

WARNING

THIS FURNACE IS NOT APPROVED OR RECOMMENDED FOR USE IN MOBILE HOMES

PHYSICAL DATA AND SPECIFICATIONS— DOWNFLOW/HORIZONTAL MODELS U.S. and Canadian Models

MODEL NUMBERS	TZ92DH603TA	TZ92DH754TA	TZ92DH905TA	TZ92DH105TA
HIGH FIRE INPUT BTU/HR [kW] ①	60.000 [17.58]	75,000 [21.98]	90,000 [26.38]	105,000 [30.77]
LOW FIRE INPUT BTU/HR [kW] ②	42,000 [12.31]	52,500 [15.39]	63,000 [18.46]	73,500 [21.54]
HEATING CAPACITY BTU/HR [kW]	56,000 [16.41]	70,000 [20.51]	84,000 [24.62]	97,000 [28.43]
HIGH ALTITUDE INPUT 8000' @	40,800 [11.96]	51,000 [14.95]	61,200 [17.94]	71,400 [20.93]
HIGH ALTITUDE OUTPUT AT 8000' (HIGH FIRE) [kW] ②	37,944 [11.12]	47,430 [13.90]	56,916 [16.69]	66,402 [19.46]
BLOWER (D x W) [mm]	11 x 7 [279 x 178]	11 x 10 [297 x 254]	12 x 11 [305 x 279]	11 x 10 [297 x 254]
MOTOR H.P. [W]— SPEEDS—TYPE	¹ /2 [373] VAR. SPEED	³ /4 [559] VAR. SPEED	1 [746] VAR. SPEED	1 [746] VAR. SPEED
MOTOR FULL LOAD AMPS	8.7	12	12	12
MINIMUM EXT. STATIC PRESSURE (IN. W.C.) [kPa]	.12 [.029]	.12 [.029]	.15 [.037]	.20 [.049]
MAXIMUM EXT. STATIC PRESSURE (IN. W.C.) [kPa]	.80 [0.2]	.80 [0.2]	.80 [0.2]	.80 [0.2]
	A = 1200	A = 1600	A = 2000	A = 2000
HIGH COOLING CFM @ .8"	B = 1000	B = 1400	B = 1600	B = 1600
[.124 kPa] W.C. E.S.P. [L/s]	C = 800	C = 1200	C = 1400	C = 1400
	D = 600	D = 1000	D = 1200	D = 1200
	A = 900	A = 1200	A = 1500	A = 1500
LOW COOLING CFM @ .8"	B = 750	B = 1050	B = 1200	B = 1200
[.124 kPa] W.C. E.S.P. [L/s]	C = 600	C = 900	C = 1050	C = 1050
	D = 450	D = 750	D = 900	D = 900
TEMPERATURE RISE-HIGH FIRE RANGE IN DEGREES °F [°C]	40-45 [22.2-25]	35-45 [19.4-25]	35-45 [19.4-25]	40-50 [22.2-27.8]
TEMPERATURE RISE-LOW FIRE RANGE IN DEGREES °F [°C]	35-40 [19.4-22.2]	20-40 [11.1-22.2]	25-40 [13.9-22.2]	30-45 [16.7-25]
MAX. OUTLET AIR TEMPERATURE	170	170	165	180
RETURN AIR CABINETS (OPT.) RXGR- FILTER SIZE [mm]	C17B (2) 12" x 16" [305 x 406]	C21B (2) 12" x 16" [305 x 406]	C21B (2) 12" x 16" [305 x 406]	C29B (2) 14" x 16" [609 x 406]
STANDARD, HIGH VELOCITY PERMANENT FILTER (IN.)	15 ³ / ₄ x 25 x 1	15 ³ / ₄ x 25 x 1	19¹/4 x 25 x 1	22 ³ /4 x 25 x 1
APPROX. SHIPPING WEIGHT (LBS.) [kg]	123 [56.0]	139 [63.2]	148 [67.3]	165 [75]
AFUE ③	95.0%	95.0%	95.0%	95.0%

NOTES: All models are 115V, 60HZ, 1 phase. Gas connection size for all models is 1/2" [13 mm] N.P.T.

WARNING: Some heating airflow values may be higher than those required for cooling. Be sure to size duct systems for highest possible airflow value.

① See Conversion Kit Index Form for high altitude derate.

② Canadian installations only.

③ In accordance with D.O.E. test procedures.

^{*}E=Standard

^{*}N=NOx Models

^[] Designates Metric Conversions

MODEL IDENTIFICATION

TZ

9

2

DH

<u>3T</u> **3T** = 1100-1300 CFM [519-613.5 L/s] Nominal Airflow <u>A</u>

 $\underline{\mathbf{X}}$

Thermal Zone®

95% Efficiency 2 Stage 95% Efficient Variable Speed ECM

Downflow/ Horizontal Heating Input Designation

60

Input BTU/HR

60 = 60,000 [17.58 kW] 75 = 75,000 [20.50 kW] 90 = 90,000 [26.38 kW] 105 = 105,000 [30.77 kW]

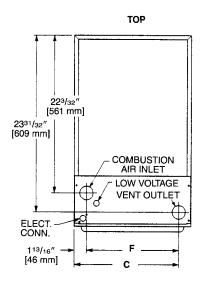
4T = 1500-1700 CFM [707.9-802.3 L/s] Nominal Airflow

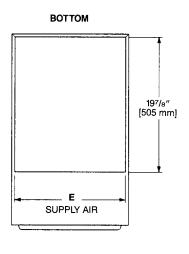
5T = 1900-2100 CFM [896.7-991.1 L/s] Nominal Airflow

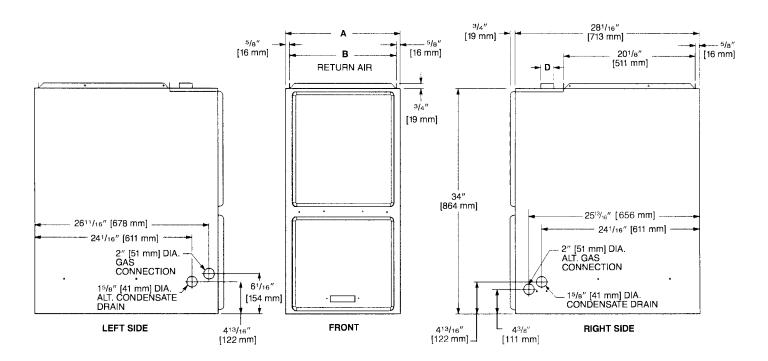
Variation NOx

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DOWNFLOW MODELS



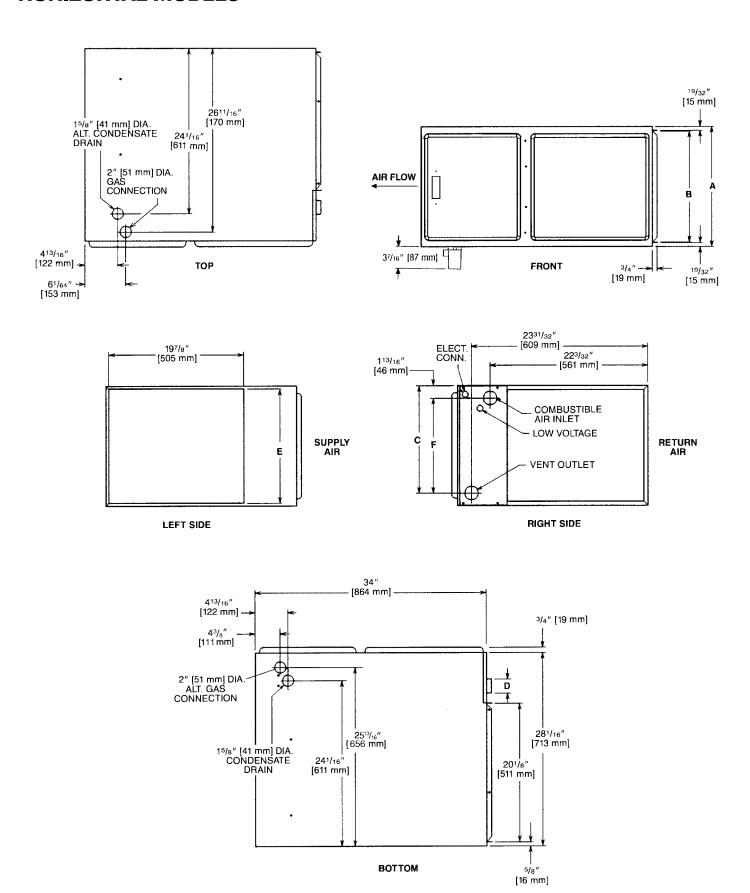




MODEL								l EE.		_ LEFT		MINIMUM CLEARANCE (IN.) [mm]				SHIP
TZ92DH	A	В	C	D	E	F	SIDE	RIGHT SIDE	BACK	ТОР	FRONT	VENT	WGTS. [kg]			
06	171/2 [445]	16 ¹¹ /32 [415]	155/8 [397]	2 [51]	16 ⁵ /8 [422]	13 ⁷ /8 [352]	0	0	0	1 [25]	2 [51]	0	123 [56]			
07	21 [533]	19 ²⁷ /32 [504]	19 ³ /16 [486]	2 [51]	20 ¹ /8 [511]	17 ³ /8 [441]	0	0	0	1 [25]	2 [51]	0	123 [56]			
09	21 [533]	19 ²⁷ / ₃₂ [504]	19 ³ / ₁₆ [486]	2 [51]	201/8 [511]	17 ³ /8 [441]	0	0	0	1 [25]	2 [51]	0	148 [67]			
10	241/2 [621]	2311/32 [593]	225/8 [575]	2 [51]	235/8 [600]	207/8 [530]	0	0	0	1 [25]	2 [51]	0	165 [75]			

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HORIZONTAL MODELS



IMPORTANT NOTE: Horizontal furnace may be installed for horizontal left hand air supply ONLY. The condensate trap provided for horizontal application must be installed in the field beneath the unit as directed in the furnace Installation & Operating Instructions.

BLOWER PERFORMANCE DATA—TZ92DH MODELS

MODEL TZ92DH	BLOWER SIZE (D x W) IN. [mm]	ECM Motor H.p. [w]	BLOWER Speed	CFM [L/s] AIR DELIVERY External Static Pressure Inches Water Column [kPa]
				0.1 [.02] - 0.8 [.20]
TZ92DH603TA	11 x 7 [279 x 178]	1/2 [373]	HIGH MED-HI MED LOW	1200 [566] 1000 [472] 800 [378] 600 [283]
TZ92DH754TA	11 x 10 [279 x 254]	3/4 [559]	HIGH MED-HI MED LOW	1600 [755] 1400 [661] 1200 [566] 1000 [472]
TZ92DH905TA	12 x 11 [305 x 279]	1 [746]	HIGH MED-HI MED LOW	2000 [944] 1600 [755] 1400 [661] 1200 [566]
TZ92DH105TA	11 x 10 [279 x 254]	1 [746]	HIGH MED-HI MED LOW	2000 [944] 1600 [755] 1400 [661] 1200 [566]

^{*}E=Standard

NOTE: CFM values represent furnace-only airflow ratings.

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GENERAL TERMS OF LIMITED WARRANTY

Thermal Zone® will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

Primary and Secondary Heat Exchanger.....Limited Lifetime Conditional Parts Warranty (Registration Required)......Ten (10) Years Conditional Unit Replacement Warranty (Registration Required).....Ten (10) Years

^{*}N=NOx Models

ACCESSORIES—DOWNFLOW

VENT TERMINATION KITS CONCENTRIC: HORIZONTAL/ VERTICAL =

RXGY-E03A (US & Canadian Installations)

HORIZONTAL TWO PIPE: RXGY-D02, RXGY-D03, RXGY-D04

(US Installations)

RXGY-D02A, RXGY-D03A, RXGY-D04A (Canadian Installations)

RXGY-G02 (US Only)

CONDENSATE PUMP KIT: RXGY-B01 NEUTRALIZER KIT: RXGY-A01

FOSSIL FUEL KIT: RXPF-F01, RXPF-F02 (TVA)

RETURN AIR PLENUM: RXGR-C17B, RXGR-C21B, RXGR-C24B

PLENUM DATA FOR "A" COILS

Plenum adapters are required in some instances for use on downflow applications when plenum and furnace size do not match.

FURNACE WIDTH In. [mm]	PLENUM WIDTH In. [mm]	PLENUM ADAPTER UPFLOW	COIL Plenum	
14 [356]	16¹/4 [413]	RXAA-C171	RXAL-B16BU	
14 [356]	201/4 [514]	RXAA-C172	RXAL-B20BU	
171/2 [445]	16¹/4 [413]	RXAA-C185	RXAL-B16BU	
17 ¹ / ₂ [445]	20 ¹ / ₄ [514]	RXAA-C173	RXAL-B20BU	
17 ¹ / ₂ [445]	215/8 [549]	RXAA-C187	RXAL-B21BU	
17 ¹ / ₂ [445]	25 ¹ / ₄ [641]	RXAA-C174	RXAL-B25BU	
21 [533]	251/4 [641]	RXAA-C175	RXAL-B25BU	
21 [533]	221/4 [565]	RXAA-C176	RXAL-B22BU	
21 [533]	215/8 [549]	RXAA-C188	RXAL-B21BU	
241/2 [622]	251/4 [641]	RXAA-C177	RXAL-B25BU	
241/2 [622]	215/8 [549]	RXAA-C187	RXAL-B21BU	

LP CONVERSION KITS:

U.S./Canadian RXGJ-FP26 or RXGJ-FP21

EXTERNAL BOTTOM FILTER RACK: RXGF-CB EXTERNAL SIDE FILTER RACK: RXGF-CA

FILTER RACK FILTER SIZES* INCHES [mm]				
MODEL TZ92DH	RXGF-CB (BOTTOM)	RXGF-CA (SIDE)		
06	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]		
07ER 07NR	19¹/4 x 25 [489 x 635]	15 ³ /4 x 25 [400 x 635]		
09	19 ¹ / ₄ x 25 [489 x 635]	15 ³ /4 x 25 [400 x 635]		
10	22 ³ /4 x 25 [578 x 635]	15 ³ / ₄ x 25 [400 x 635]		

^{*}Filter racks are shipped without filters.

Filters shipped with furnace may be used or a suitable 1" [25.4 mm] filter.

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

FOR HIGH ALTITUDES:

HIGH ALTITUDE KIT: NOT REQUIRED

NOTE: For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations.

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"In keeping with its policy of continuous progress and product improvement, the right is reserved to make changes without notice."