

# Submittal Data Sheet: Z9ES Series - Condensing Residential Gas Furnaces Single-Stage Standard ECM Multi-Position

6414266-BSD-A-0624

## Submittal data

Job name:			Location:	
Purchaser:			Order number:	
Engineer:				
Submitted to:	For:	Ref:	Approval:	Construction:
Submitted by:			Date:	
Unit designated:			Schedule number:	Model number:

## Product data

### Heating performance

Input capacity \_\_\_\_\_ MBH  
 Output capacity \_\_\_\_\_ MBH  
 Air temperature rise \_\_\_\_\_ °F

### Supply air blower performance

Total supply air \_\_\_\_\_ CFM  
 Total external static pressure \_\_\_\_\_ IWG  
 Blower speed (circle) H MH M ML L  
 Motor rating \_\_\_\_\_ HP

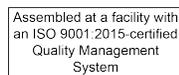
### Electrical data

Power supply \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 Total unit ampacity \_\_\_\_\_ A  
 Minimum wire size \_\_\_\_\_ AWG  
 Maximum overcurrent device  fuses  circuit breaker

### Weight

Unit weight \_\_\_\_\_ lb

## Certification



## Warranty

20-year limited warranty on the heat exchanger.  
 10-year heat exchanger warranty on non-residential applications.  
 5-year limited parts warranty.

**Extended residential limited lifetime heat exchanger and 10-year limited parts warranty when product is registered online within 90 days of purchase for replacement or within 90 days of closing for new home construction.**

See *Limited Warranty certificate* in *Users Information Manual* for details.

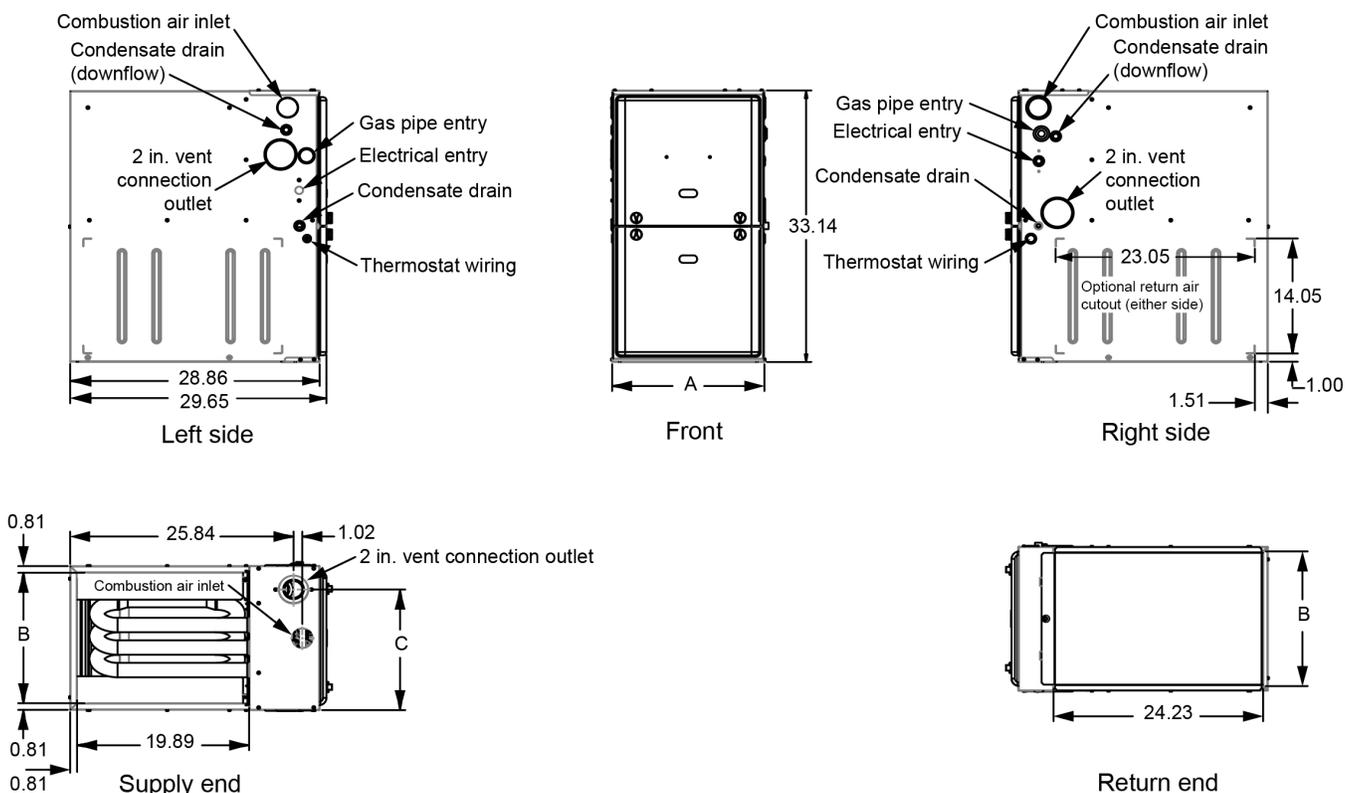
## Features

- Easily applied in upflow, horizontal left or horizontal right, or downflow installation with minimal conversion necessary.
- Venting kit for downflow (counter-flow) applications on B, C, and D cabinets where side discharge is not possible.
- The unit cabinet is compact and easy to install with an ideal height of 33 in.
- Full length fold-up duct connector flanges for application flexibility.
- Easy access to controls to connect power and control wiring.
- No electrical knockouts to deal with, making installation easier.
- 24 V, 40 VA control transformer and control provisions supplied for single or multi-stage add on cooling.
- Built-in, high level self diagnostics with fault code displays standard on integrated control module for reliable operation.
- Front-facing screws on flame sensor and hot surge ignitor for ease of service.
- Front-facing screws on blower assembly for easy access and removal of blower.
- Constant torque blower motor for cooling SEER2 enhancement.
- Blower-off delay for cooling SEER2 improvement.

- Continuous fan options for indoor air quality (IAQ) performance.
- Airflow leakage less than 2% of nominal airflow for duct performance testing conditions.
- Low unit current requirement for easy replacement application.
- Electronic hot surface ignition saves fuel cost with increased dependability and reliability.
- 100% shut-off main gas valve for extra safety.
- Inducer rotates for easy conversion of venting options.
- The 26k model is not convertible for use with propane (LP) gas. All other models are field-convertible for use with propane (LP) gas with an optional propane accessory conversion kit.
- Five-speed direct drive standard ECM blower motor.
- Hi-tech tubular aluminized steel primary heat exchanger.
- Corrosion resistant stainless steel secondary heat exchanger including rear cover pan and front vestibule panel.
- Quiet inducer operation.
- Timed on, adjustable off blower capability for maximum comfort.
- Blower door safety switch below the blower deck.
- Solid removable bottom panel allows easy conversion for bottom return air applications.
- Twinning terminal for controlling two identical models installed with a common duct system. No external kit is required.
- External air filters are used for maximum flexibility in meeting customers' IAQ needs.
- 1/4 turn knobs are provided for easy independent door removal.
- Insulated blower compartment for thermal and acoustic performance.
- Internal condensate trap design (patent pending) provides condensate management options and is self priming to prevent nuisance problems.
- Protection included from air intake, exhaust vent, or condensate blockage. Venting applications may be installed as either two-pipe sealed combustion or single-pipe vent (except 26k) using indoor combustion air.
- No special vent termination required.
- These condensing furnace models produce <40 ng/j NOx emissions.
- Fold-up duct connector flanges for application flexibility.
- Patented self-priming internal condensate trap design for easy installation.

## Dimensions

Figure 1: Dimensions



A1795-001

**Table 1: Cabinet and duct dimensions**

Model	Cabinet size	A		B		C		Approximate operating weight	
		in.	cm	in.	cm	in.	cm	lb	kg
Z9ES026A08SMPS1	A	14.5	36.8	13.4	34	11.7	29.7	103	47
Z9ES040A10SMPS1	A	14.5	36.8	13.4	34	11.7	29.7	106	48
Z9ES060A10SMPS1	A	14.5	36.8	13.4	34	11.7	29.7	109	49
Z9ES060B12SMPS1	B	17.5	44.4	16.4	41.6	14.7	37.4	112	51
Z9ES080B12SMPS1	B	17.5	44.4	16.4	41.6	14.7	37.4	117	53
Z9ES080C16SMPS1	C	21	53.3	19.8	50.5	18.2	46.2	127	58
Z9ES080C20SMPS1	C	21	53.3	19.8	50.5	18.2	46.2	135	61
Z9ES100C16SMPS1	C	21	53.3	19.8	50.5	18.2	46.2	131	59
Z9ES100C20SMPS1	C	21	53.3	19.8	50.5	18.2	46.2	138	63
Z9ES120D20SMPS1	D	24.5	62.2	23.4	59.4	21.7	55.1	147	67

## Accessories

### Propane (LP) conversion kit

This accessory conversion kit can be used to convert natural (NAT) gas units for propane (LP) operation, with the exception of the 26k model.

S1-1NP0347

### Propane (LP) conversion kit with stainless steel burners

This accessory conversion kit can be used to convert natural (NAT) gas units for propane (LP) operation, with the exception of the 26k model. The kit includes stainless steel burners.

S1-1NP0820

### Propane (LP) stainless steel burner kit

This accessory conversion kit can be used to convert existing burners to stainless steel burners for propane (LP) use only.

S1-32926889000 - all propane (LP) models

### Natural (NAT) gas stainless steel burner kit

This accessory kit can be used to replace existing burners with stainless steel burners for natural (NAT) gas use only.

S1-32924441000 - all natural (NAT) gas models

### Concentric vent termination

For use through rooftop, sidewall. Allows combustion air to enter and exhaust to exit through single common hole. Eliminates unsightly elbows for a cleaner installation.

S1-1CT0302 (2 in.) and S1-1CT0302-636 (2 in.)

S1-1CT0303 (3 in.) and S1-1CT0303-636 (3 in.)

### Sidewall vent termination kit

For use on sidewall, two-pipe installations only. Provides a more attractive termination for locations where the terminal is visible on the side of the home.

S1-1HT0901 (3 in.)

S1-1HT0902 (2 in.)

### Condensate neutralizer kit

Neutralizer cartridge has 1/2 in. plastic tube fittings for installation in the drain line. Calcium carbonate refill media is also available from Source 1 Parts (P/N 026-30228-000).

S1-1NK0301

### Bottom return filter racks

The S1-1BR05\* series are galvanized steel filter racks. The S1-1BR06\* series are pre-painted steel filter racks to match the appearance of the furnace cabinet. The S1-1BR05\* and S1-1BR06\* series filter racks accommodate a 1 in., 2 in., or 4 in. filter.

S1-1BR0514 or S1-1BR0614 - for 14 1/2 in. cabinets

S1-1BR0517 or S1-1BR0617 - for 17 1/2 in. cabinets

S1-1BR0521 or S1-1BR0621 - for 21 in. cabinets

S1-1BR0524 or S1-1BR0624 - for 24 1/2 in. cabinets

### Side return filter racks

The S1-1SR0402 kit accommodates only a 1 in. filter.

S1-1SR0402 - all models

### Combustible floor base kit

This kit is required to prevent potential overheating situations when the furnace is installed in a downflow application directly onto combustible flooring material. This kit is also required in any application where the furnace is installed in a downflow configuration without

an indoor coil and where the combustible floor base kit provides access for combustible airflow.

S1-1CB0514 - for 14 1/2 in. cabinets

S1-1CB0517 - for 17 1/2 in. cabinets

S1-1CB0521 - for 21 in. cabinets

S1-1CB0524 - for 24 1/2 in. cabinets

### High altitude pressure switch kit

A high altitude pressure switch kit is required for installation at altitudes above 5,000 ft. Use the correct kit for the furnace input rate and size.

**Table 2: High-altitude pressure switch kits**

Furnace input rate in kBtu/h and size	High-altitude pressure switch kit part number
26A08	S1-1PS3313
40A10	S1-1PS3315
60A10	S1-1PS3313
60B12	S1-1PS3313
80B12	S1-1PS3316
80C16	S1-1PS3314
80C20	S1-1PS3314
100C16	S1-1PS3317
100C20	S1-1PS3318
120D20	S1-1PS3314

### Thermostats

Compatible thermostat controls are available through accessory sourcing. For optimum performance, these outdoor units are fully compatible with our residential Hx™ Touch Screen Thermostat available through Source 1. For more information, refer to the *Thermostat & Controllers* section at <http://www.simplygettingthejobdone.com>.

### Downflow vent kit

This kit can be used when the furnace is in the downflow position and there is not enough room for venting through the side of the furnace cabinet.

S1-37348990001 internal vent kit 17.5 in.

S1-37348991001 internal vent kit 21.0 in.

S1-37348992001 internal vent kit 24.5 in.

**Note:** There is no kit available for A width cabinet models.