

## TECHNICAL SPECIFICATIONS

# E7 Series Electric Furnaces

The E7 Series furnace is designed for all sizes of manufactured and modular homes. These units incorporate reliability and low maintenance. Units may be installed free standing in a utility room or enclosed in an alcove or closet. E7 Series furnaces are A/C ready, with 16 blower speeds to meet any cooling requirement.



E7ED  
Downflow  
Electric Furnace



E7EU  
Upflow  
Electric Furnace



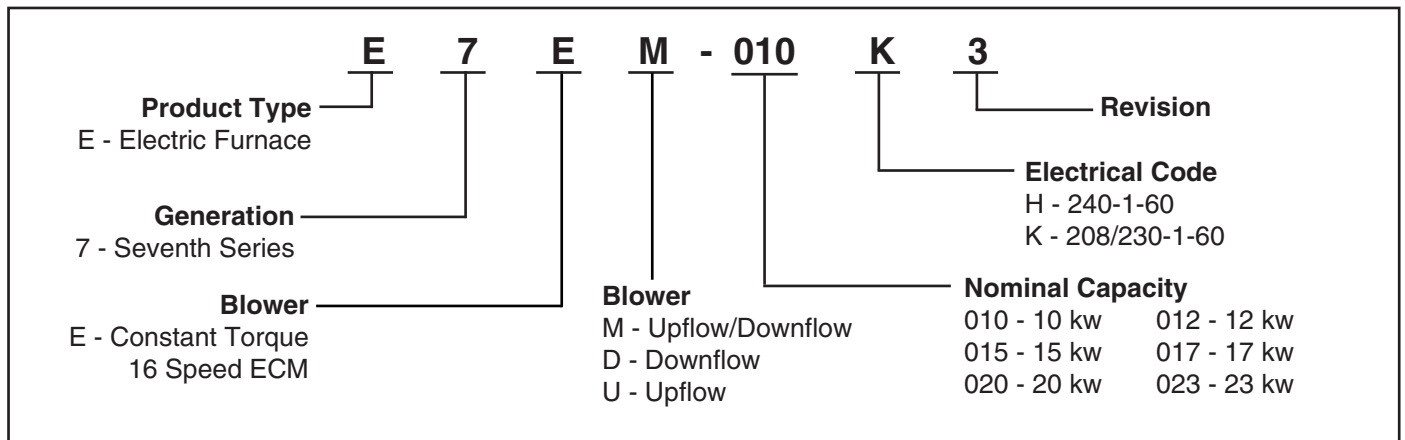
E7EM  
Upflow/Downflow  
Electric Furnace

## FEATURES and BENEFITS

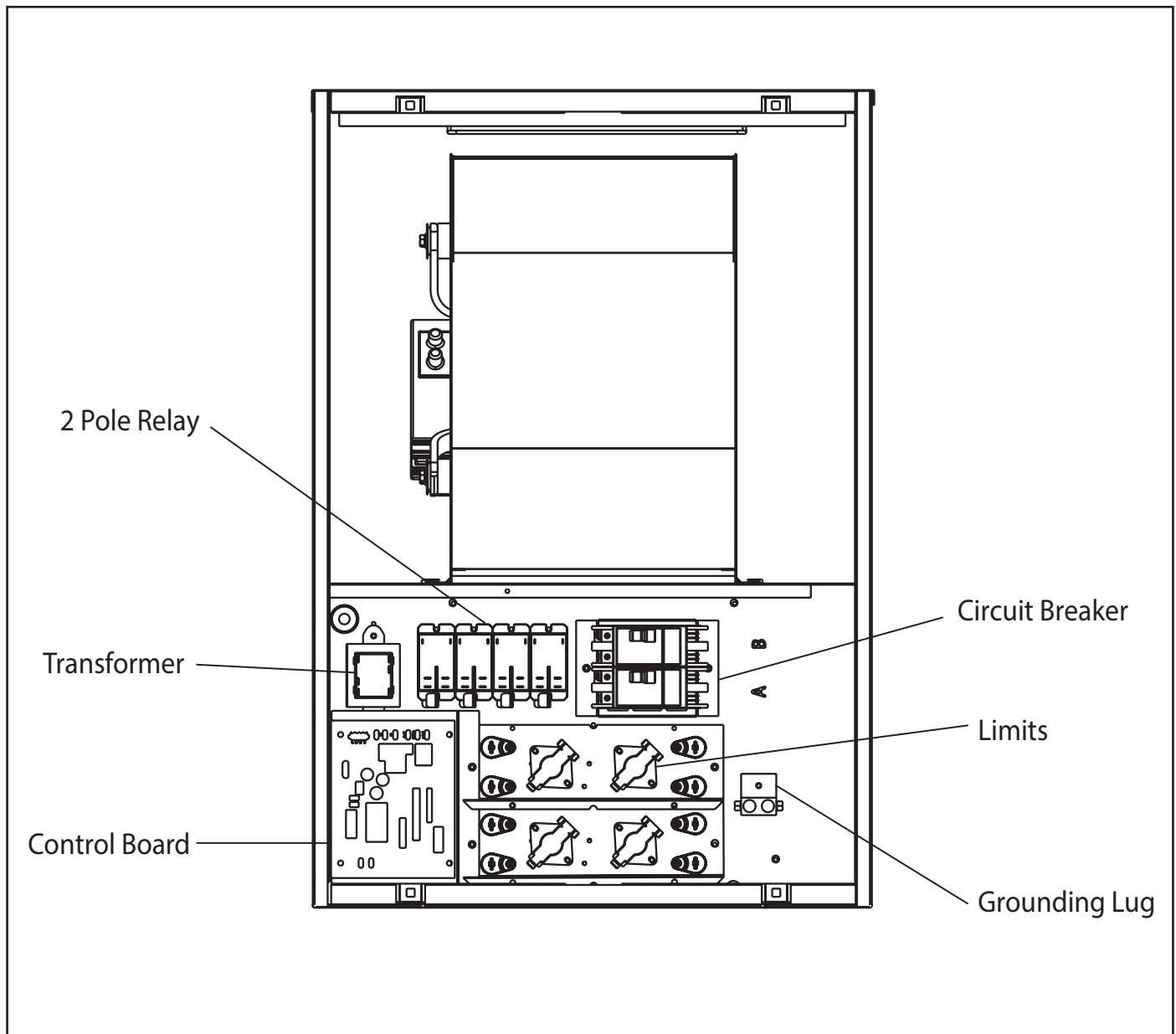
- **Choice of Air Conditioning Options:** From 1.5 to 5 tons A/C ready.
- **Easy Open Door:** Secures the door firmly for transit, yet allows easy removal for access.
- **Effective Air Filter:** Universal disposable filter is readily available and simple to replace.
- **Nichrome Heating Elements:** Provide long lasting, efficient heating.
- **Appliance Quality Door:** Protects against rust and other corrosion. Baked enamel finish allows for easy cleaning.
- **Fully Insulated Furnace Cabinet:** Insures minimized heat loss and quiet operation.
- **Safety and Dependability:** Auto reset controls protect unit's electrical circuitry and helps ensure trouble free performance. Built in circuit breakers for extra safety.
- **Adaptable:** Unit can be adapted to provide dependable heating in either downflow or upflow mode.
- **Versatile:** Works with self-contained or split system air conditioners or heat pumps.
- **Heating Relays:** Provide quiet operation.
- **Control Board:** Allows for 16 blower speeds to create ideal comfort in the home.
- **7 Segment LED Display:** Shows furnace mode and simplifies service.
- **Upflow/Downflow Furnace (E7EM):** Available to meet any application.
- **Upflow (E7EU) and Downflow (E7ED) Furnace:** Comes with a factory installed coil box and all necessary filters.
- Full line of accessories to meet many difficult applications.



## MODEL IDENTIFICATION



## FURNACE PARTS IDENTIFICATION



# UNIT SPECIFICATIONS

APPLIANCE MODELS E7-	SUPPLY VOLTAGE	010K	012K	015K	017K	020K	023K
Number of Heating elements		2	2	3	3	4	4
Rated Heating Output, Btuh	230V~ 60Hz 1 Phase	31,000	36,000	47,000	51,000	63,000	68,000
Heating Element total kW		9.2	10.7	13.8	14.9	18.4	19.8
Watts (Total kw, Heating Elements & Blower)		9.6	11.1	14.2	15.3	18.8	20.2
Rated Heating Output, Btuh	208V~ 60Hz 1 Phase	26,000	30,000	38,000	42,000	51,000	55,000
Heating Element total kW		7.5	8.7	11.3	12.2	15	16.2
Watts (Total kw, Heating Elements & Blower)		7.9	9.1	11.7	12.6	15.4	16.6
Test ESP, in. w.c. Max		0.4					
Optional Cooling Available with factory installed blower		2.0 - 4.0 ton					
Optional Heat Pump Available with factory installed blower		2.0 - 4.0 ton					
Air Filter (Standard)		18" (45.7 cm) x 20" (50.8 cm) x 1" (2.54 cm) (nominal)					
Appliance Dimensions	Multi-Poise	Width-20" (508mm), Height-29" (737mm), Depth-24 1/2" (623mm)					
	Upflow/ Downflow	Width-20" (508mm), Height-60 5/8" (1546mm), Depth-24 1/2" (623mm)					

**NOTE:** Heating output rated at listed voltage.

# ELECTRICAL SPECIFICATIONS

MODEL NUMBER E7E*-	SUPPLY CIRCUIT	230V~				208V~			
		TOTAL AMPERES	MAXIMUM OVER-CURRENT RATING	MINIMUM CIRCUIT AMPACITY	CIRCUIT BREAKER SIZE	TOTAL AMPERES	MAXIMUM OVER-CURRENT RATING	MINIMUM CIRCUIT AMPACITY	CIRCUIT BREAKER SIZE
010K3	Single	43.7	48.5	54.7	60	39.9	44.7	49.9	50
012K3	Single	50.1	54.9	62.6	70	45.7	50.4	57.1	60
	Dual "A"	27.0	31.7	33.7	35	24.7	29.5	30.9	35
	Dual "B"	23.2	23.2	28.9	30	20.9	20.9	26.2	30
015K3	Single	63.7	68.4	79.6	80	58.0	62.7	72.5	80
	Dual "A"	43.7	48.5	54.7	60	39.9	44.7	49.9	50
	Dual "B"	20.0	20.0	25.0	25	18.1	18.1	22.6	25
017K3	Single	68.5	73.2	85.6	90	62.3	67.1	77.9	80
	Dual "A"	43.1	43.1	53.9	60	39.0	39.0	48.8	50
	Dual "B"	25.4	30.1	31.7	35	23.3	28.1	29.1	30
020K3	Single	83.7	88.4	104.6	110	76.0	80.8	95.0	100
	Dual "A"	43.7	48.5	54.7	60	39.9	44.7	49.9	50
	Dual "B"	39.9	39.9	49.9	50	36.1	36.1	45.1	50
023K3	Single	90.1	94.8	112.6	125	81.8	86.6	102.3	110
	Dual "A"	43.7	48.5	54.7	60	39.9	44.7	49.9	50
	Dual "B"	46.3	46.3	57.9	60	41.9	41.9	52.4	60

**NOTE:** Wire size must be in accordance to the applicable revision of the NEC and all other applicable codes.

## Anticipator Settings

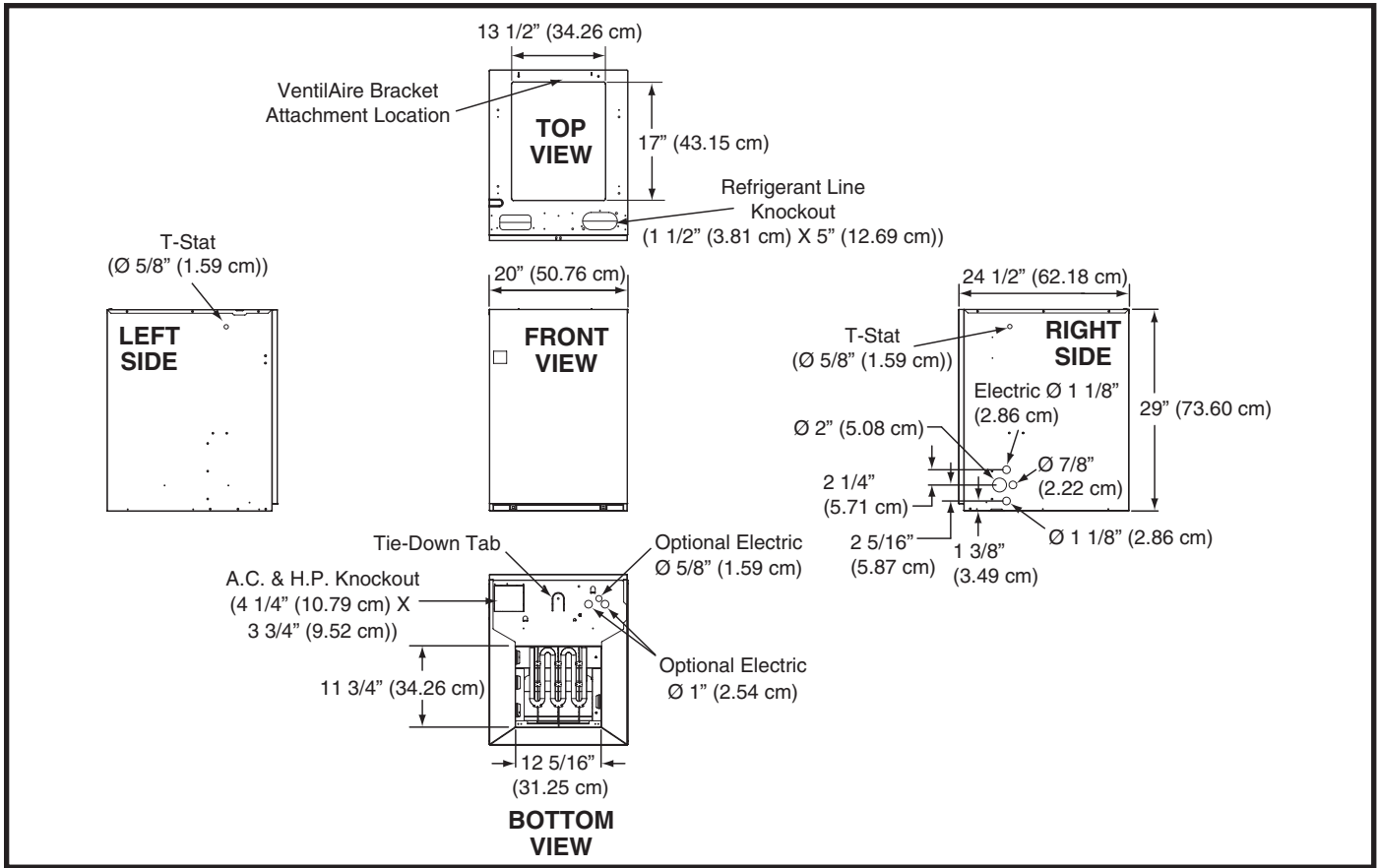
Furnace Model	Thermostat Anticipator Setting
010, 012	0.2
015, 017, 020, 023	0.4

## Clearances

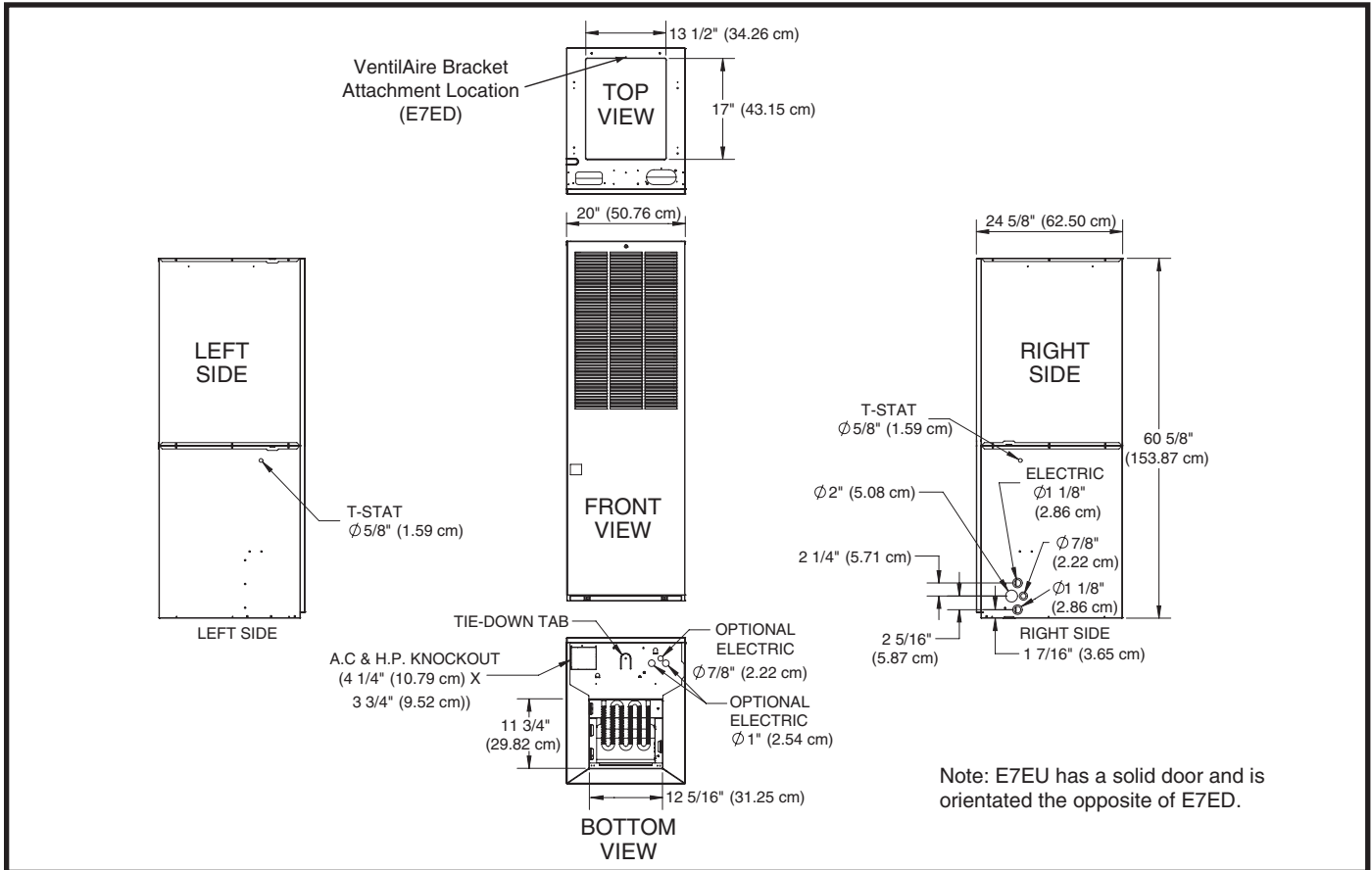
ALL MODELS	CLOSET	ALCOVE
Front ‡	6"	18"
Back	0"	0"
Sides	0"†	0"†
Top	0"	0"
Top and Sides of Duct	0"	0"
Bottom of Duct	0"	0"

‡ Service Clearance

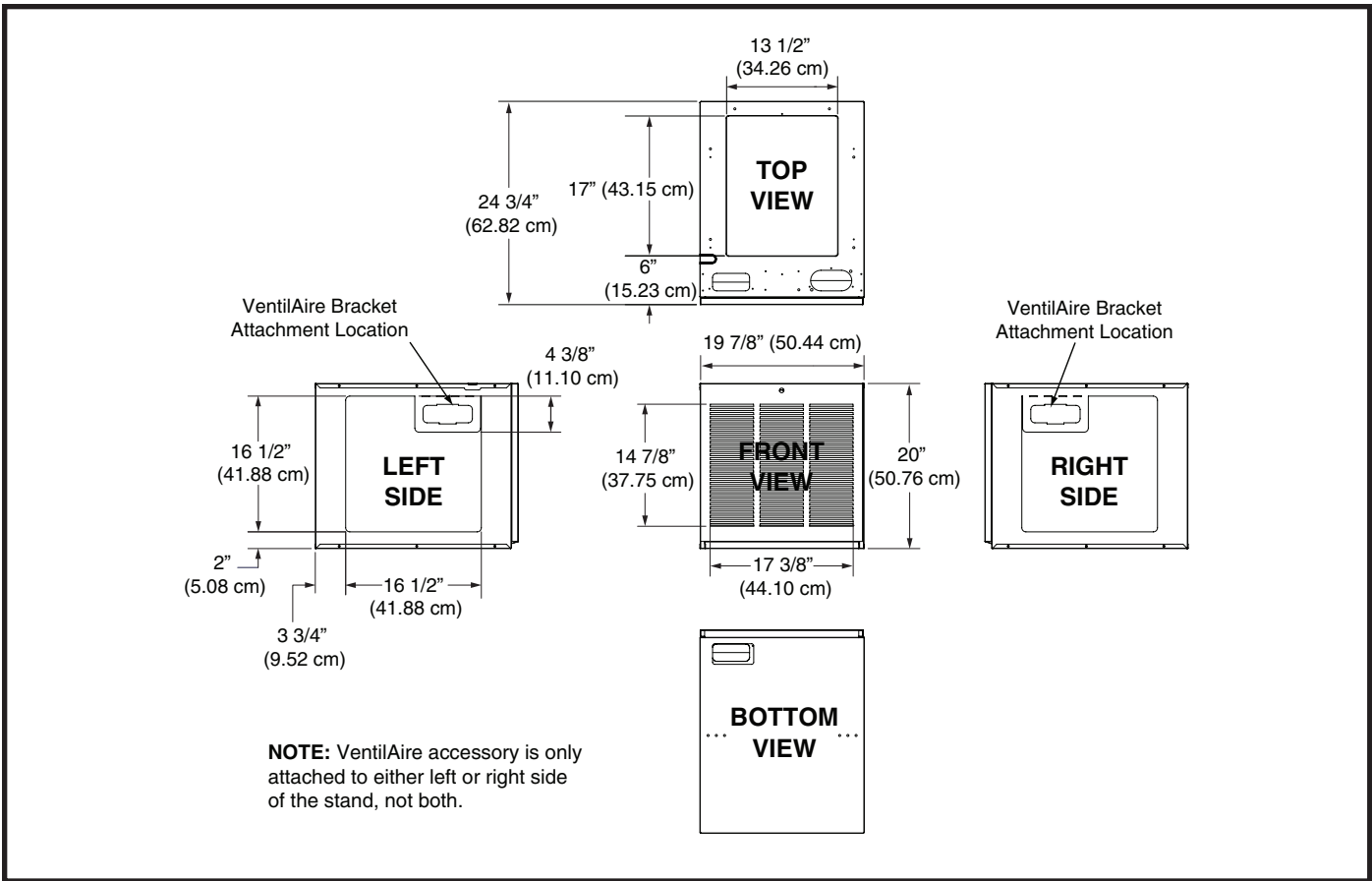
† For upflow application using upflow stand, 1" minimum per side.



**E7EM Physical Dimensions**

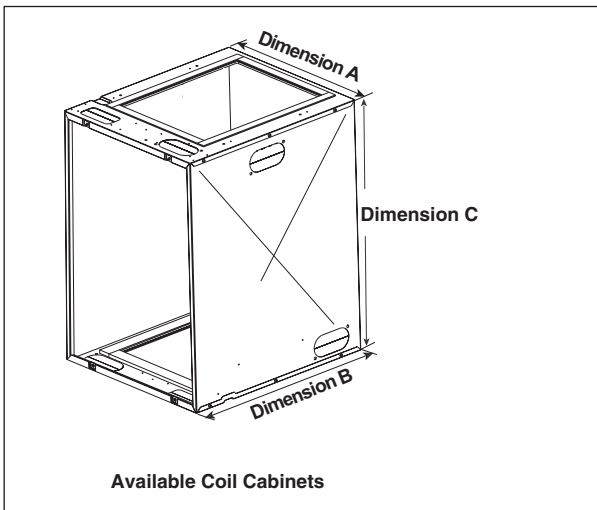


**E7EU & E7ED Physical Dimensions**



### E7 Furnace Upflow Stand Dimensions

#### Optional Accessories



Coil Box	Dimension A Width (mm)	Dimension B Depth (mm)	Dimension C Height (mm)
1006730	20" (508mm)	24" (610mm)	31.5" (802mm)
1006731	20" (508mm)	24" (610mm)	31.5" (802mm)
904067	20" (508mm)	24" (610mm)	27" (686mm)
902976	20" (508mm)	24" (610mm)	29" (736mm)



# AIRFLOW DATA

AIRFLOW (CFM)										
MODEL NUMBER	MOTOR SWITCH SETTINGS (0=OFF, 1=ON)				EXTERNAL STATIC PRESSURE (IN. W.C.)					
					0.1	0.2	0.3	0.4	0.5	0.6
	1/5	2/6	3/7	4/8	CFM	CFM	CFM	CFM	CFM	CFM
E7E*-0**K3	0	0	0	0	685	640	606	560	513	460
	1	0	0	0	770	727	692	648	599	552
	0	1	0	0	854	815	779	737	685	645
	1	1	0	0	939	902	865	825	771	737
	0	0	1	0	1,012	974	938	899	850	813
	1	0	1	0	1,084	1,047	1,011	973	930	888
	0	1	1	0	1,157	1,119	1,084	1,047	1,009	964
	1	1	1	0	1,197	1,166	1,130	1,093	1,056	1,017
	0	0	0	1	1,245	1,215	1,178	1,143	1,105	1,066
	1	0	0	1	1,293	1,263	1,225	1,192	1,154	1,114
	0	1	0	1	1,344	1,312	1,278	1,242	1,206	1,169
	1	1	0	1	1,394	1,361	1,330	1,291	1,257	1,223
	0	0	1	1	1,434	1,401	1,369	1,332	1,299	1,267
	1	0	1	1	1,473	1,441	1,408	1,373	1,340	1,311
	0	1	1	1	1,514	1,483	1,451	1,417	1,386	1,355
1	1	1	1	1,555	1,525	1,494	1,460	1,431	1,398	

AIRFLOW (m³/h)										
MODEL NUMBER	MOTOR SWITCH SETTINGS (0=OFF, 1=ON)				EXTERNAL STATIC PRESSURE (PA)					
					25	50	75	100	125	150
	1/5	2/6	3/7	4/8	CFM	CFM	CFM	CFM	CFM	CFM
E7E*-0**K3	0	0	0	0	1164	1087	1030	951	872	782
	1	0	0	0	1308	1235	1176	1101	1018	938
	0	1	0	0	1451	1385	1324	1252	1164	1096
	1	1	0	0	1595	1533	1470	1402	1310	1252
	0	0	1	0	1719	1655	1594	1527	1444	1381
	1	0	1	0	1842	1779	1718	1653	1580	1509
	0	1	1	0	1966	1901	1842	1779	1714	1638
	1	1	1	0	2034	1981	1920	1857	1794	1728
	0	0	0	1	2115	2064	2001	1942	1877	1811
	1	0	0	1	2197	2146	2081	2025	1961	1893
	0	1	0	1	2283	2229	2171	2110	2049	1986
	1	1	0	1	2368	2312	2260	2193	2136	2078
	0	0	1	1	2436	2380	2326	2263	2207	2153
	1	0	1	1	2503	2448	2392	2333	2277	2227
	0	1	1	1	2572	2520	2465	2407	2355	2302
1	1	1	1	2642	2591	2538	2481	2431	2375	

**NOTES:**

1. Motor switch settings for heating speeds use HEAT switches 1, 2, 3, and 4. For cooling speeds use COOL switches 5, 6, 7, and 8.
2. Data is shown with filter

## E7 Airflow Data

E7E*-0**H1	MAXIMUM HEATING AIRFLOW SETTING							
	E7EM				E7ED		E7EU	
	DOWNFLOW		UPFLOW		DOWNFLOW		UPFLOW	
	MH	RES	MH	RES	MH	RES	MH	RES
10	0001	0101	0001	0101	0101	0101	0101	0101
12		0011	0101					
15		0101						
17								
20								
23								

**NOTES:**

- MH and Res represent Manufactured Housing and Residential (modular home) applications, respectively
- To comply with government mandated efficiency standards, speed settings with higher CFM values than listed in this table are not allowed in HEAT mode

**Maximum Allowable Heat Settings**

**ELECTRICAL SPECIFICATIONS OF LEGACY 240V E7 APPLIANCES FOR REFERENCE**

240V~					
MODEL NUMBER E7E*-	SUPPLY CIRCUIT	TOTAL AMPERES	MAXIMUM OVER-CURRENT RATING	MINIMUM CIRCUIT AMPACITY	CIRCUIT BREAKER SIZE
010H*	Single	45	50	57	60
012H*	Single	52	56	65	70
	Dual "A"	28	32	35	35
	Dual "B"	24	24	30	35
015H*	Single	66	71	83	90
	Dual "A"	45	50	57	60
	Dual "B"	21	21	26	30
017H*	Single	71	76	89	90
	Dual "A"	45	45	56	60
	Dual "B"	26	31	33	35
020H*	Single	87	91	109	110
	Dual "A"	45	50	57	60
	Dual "B"	42	42	52	60
023H*	Single	94	98	117	125
	Dual "A"	45	50	57	60
	Dual "B"	48	48	60	60

**NOTE:** Wire size must be in accordance to the applicable revision of the NEC and all other applicable codes.

## ACCESSORIES

Description	Part Number
High Airflow Blower Kit	1044062
Heating Thermostat Intertherm (12 Pac)	903188 (903182)
Heating Thermostat Miller (12 Pac)	903189 (903183)
Thermostat Sub-Base	914146
Heating/Cooling Thermostat CM65 Intertherm/Miller (12 Pac)	903992 (903993)
Heating/Cooling Thermostat GE Intertherm (12 Pac)	903192 (903186)
Heating/Cooling Thermostat GE Miller (12 Pac)	903193 (903187)
Automatic Damper for AC or HP Package Unit	901083
"VEE" Box Adapters (10") - 5 / carton	901985
Duct Connector 10" Diameter x 6" Long - 6 / carton	902926
"VEE" Box Adapters (12") - 5 / carton	902149
Single Wide Fitting Kit (12")	911468A
Double Wide Fitting Kit (12")	911469A
Single Wide Fitting Kit (14")	914957
Double Wide Fitting Kit (14")	914956
Y-Fitting (12")	911470
Y-Fitting (14")	917195
Fan Delay Kit (TDR)	911758
Top Grille/Frame	902989
Top Grille/Frame (4 pack)	903000
Cabinet to Combine w/ Grille/Frame	903891
Upflow Stand	1014501
Coil Cabinet (For all sizes), Upflow & Downflow w/ Solid Door	1006730
Coil Cabinet (For all sizes), Upflow & Downflow w/ Louvered Door	1006731
Coil Cabinet Downflow (Front return)	904067
Coil Cabinet Upflow (Solid door, limited capacities)	902976

## ACCESSORY KITS

Vent Kits	Part Number
Soffit Air Inlet (for VentilAire III only)	917201A
VentilAire III - Sloped 3/12	914098
VentilAire IV - Sloped 3/12	914229
VentilAire V - Sloped 3/12	1018547

Plenum Connectors	Part Number
11.25 x 13.50 x 0.88 12 / carton	901987A
11.25 x 13.50 x 2.00 12 / carton	901988A
11.25 x 13.50 x 4.25 6 / carton	901989A
11.25 x 13.50 x 6.25 6 / carton	901990A
11.25 x 13.50 x 8.25 4 / carton	901991A
11.25 x 13.50 x 10.25 3 / carton	901992A
11.25 x 13.50 x 12.25 3 / carton	901993A
11.25 x 13.50 x 6.25 24 / carton	902681A



### GENERAL TERMS OF LIMITED WARRANTY

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the Nortek Global HVAC, LLC warranty department for a copy.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A. (12/23)