

## E3EB-xxx-H Series Downflow, Upflow Electric Furnaces

The E3 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. E3 Series furnaces are A/C ready, with multiple blower combinations for cooling requirements.



### FEATURES and BENEFITS

- **Choice of Air Conditioning Options:** From 2 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 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.



# MODEL IDENTIFICATION

**E 3 EB - 010 H**

**Product Type**  
E - Electric Furnace

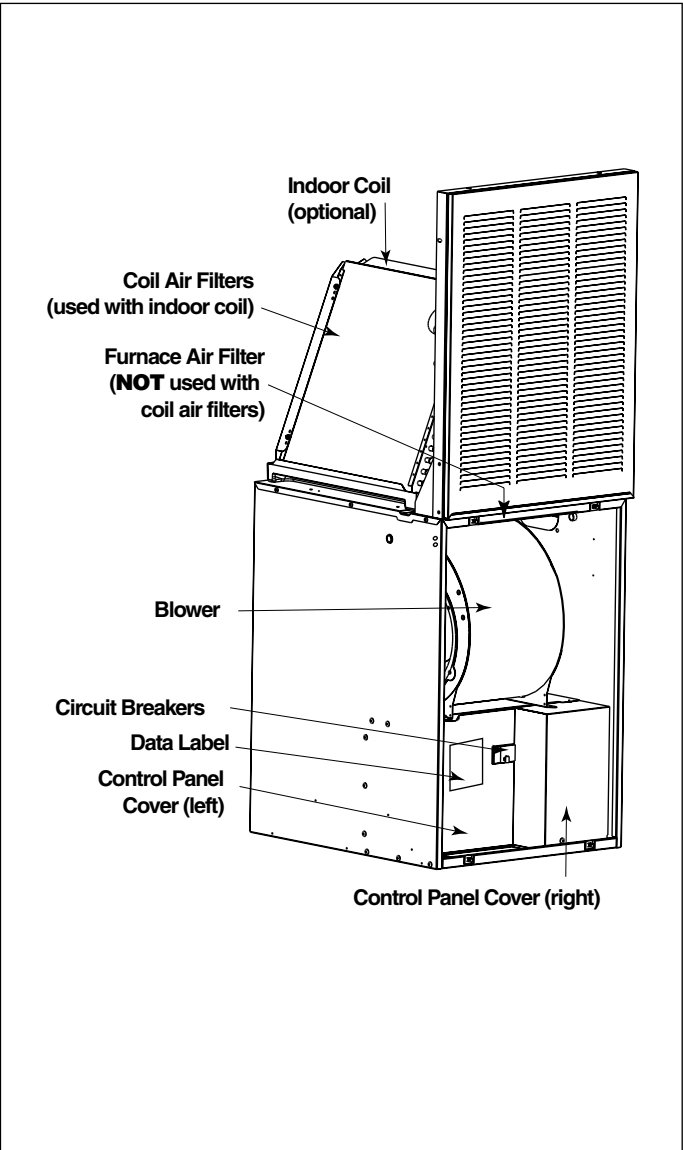
**Generation**  
3 - Third Series

**Product Identifier**  
EB - A/C Blower Equipped Relay

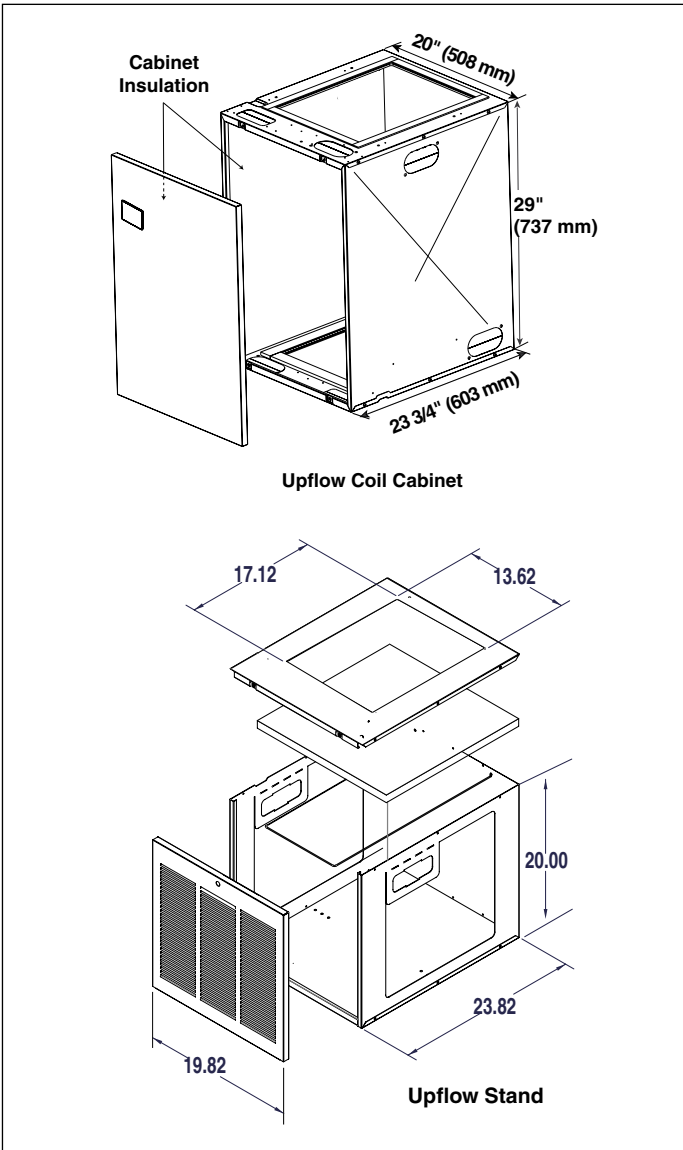
**Electrical Code**  
H - 240-1-60

**Primary Capacity**  
010 - 10 kw      012 - 12 kw  
015 - 15 kw      017 - 17 kw  
020 - 20 kw      023 - 23 kw

## Furnace Parts Identification



## Optional Accessories



## UNIT SPECIFICATIONS

| Electric Furnace Models                                    | E3EB                                                                      |          |          |          |          |          |                          |
|------------------------------------------------------------|---------------------------------------------------------------------------|----------|----------|----------|----------|----------|--------------------------|
|                                                            | 010H                                                                      | 012H     | 015H     | 017H     | 020H     | 023H     | 023H 5-Ton               |
| Rated Heating Output, Btuh (see note 1)                    | 35,000                                                                    | 41,000   | 53,000   | 57,000   | 70,000   | 75,000   | 75,000                   |
| Watts (Total kw, Heating Elements and Blower)              | 10.4                                                                      | 12.0     | 15.4     | 16.6     | 20.4     | 22.0     | 22.0                     |
| Supply Voltage                                             | 240 Volts/60Hz/1-Phase                                                    |          |          |          |          |          |                          |
| Heating Elements, No.(Total kw)                            | 2 (10.0)                                                                  | 2 (11.6) | 3 (15.0) | 3 (16.2) | 4 (20.0) | 4 (21.6) | 4 (21.6)                 |
| Blower Wheel Size                                          | 10.5" Dia, 8" Wide                                                        |          |          |          |          |          | 11" Dia., 8" W           |
| Motor Speed, H.P. Rating, Amps                             | 4 Speed, 1/3 HP, 2.9                                                      |          |          |          |          |          | 4 Spd, 3/4HP<br>3.8 Amps |
| Test ESP, in. w.c. Max                                     | 0.3                                                                       |          |          |          |          |          |                          |
| Optional Cooling Available with factory installed blower   | 2.0 - 4.0 Ton                                                             |          |          |          |          |          | 2.0 - 5.0 Ton            |
| Optional Heat Pump Available with factory installed blower | 2.0 - 4.0 Ton                                                             |          |          |          |          |          |                          |
| Air Filter (Standard)                                      | 16" x 20" x 1" (nominal)                                                  |          |          |          |          |          |                          |
| Furnace Dimensions                                         | Width-20" (508mm), Height-29" (737mm) (see note 2), Depth-24 1/2" (623mm) |          |          |          |          |          |                          |

1. Heating output rated at listed voltage. For outputs at voltages other than 240V, multiply Btuh rating by the following factors: x 0.92 (230V), x 0.84 (220V), x 0.75 (208V)

2. Height is 56" with return air grille installed, 58" with coil cabinet and 72" with coil cabinet and upflow stand.

## ELECTRICAL SPECIFICATIONS

| Model Number<br>E3E(*) | Supply Circuit | Total Amperes | Maximum Over-current Rating | Minimum Circuit Ampacity |
|------------------------|----------------|---------------|-----------------------------|--------------------------|
| -010H                  | Single         | 44.6          | 60                          | 56                       |
| -012H                  | Single         | 51.2          | 70                          | 64                       |
|                        | Dual "A"       | 27.1          | 40                          | 34                       |
|                        | Dual "B"       | 24.2          | 30                          | 30                       |
| -015H                  | Single         | 65.4          | 90                          | 82                       |
|                        | Dual "A"       | 44.6          | 60                          | 56                       |
|                        | Dual "B"       | 20.8          | 30                          | 26                       |
| -017H                  | Single         | 70.4          | 90                          | 88                       |
|                        | Dual "A"       | 47.9          | 60                          | 60                       |
|                        | Dual "B"       | 22.5          | 30                          | 28                       |
| -020H                  | Single         | 86.2          | 125                         | 108                      |
|                        | Dual "A"       | 44.6          | 60                          | 56                       |
|                        | Dual "B"       | 41.7          | 60                          | 52                       |
| -023H                  | Single         | 93.8          | 125                         | 117                      |
|                        | Dual "A"       | 45.5          | 60                          | 57                       |
|                        | Dual "B"       | 48.0          | 60                          | 60                       |

Replacement furnace for E2E(\*)-015HB

## Blower Performance

| 4-Ton Blower with Coil and Coil Filters, @ 0.3" ESP  |           |      |
|------------------------------------------------------|-----------|------|
| Pin No.                                              | Speed     | CFM  |
| #1                                                   | Low       | 880  |
| #2                                                   | Med.-Low  | 1170 |
| #3                                                   | Med.-High | 1310 |
| #4                                                   | High      | 1460 |
| 5-Ton Blower, with Coil and Coil Filters, @ 0.3" ESP |           |      |
| Pin No.                                              | Speed     | CFM  |
| #1                                                   | Low       | 990  |
| #2                                                   | Med.-Low  | 1320 |
| #3                                                   | Med.-High | 1620 |
| #4                                                   | High      | 1790 |

## 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.

## AIRFLOW DATA

| <b>E3EB (010, 012, 015, 017, 020, 023) H</b> |     |       |         |          |         |         |         |         |      |
|----------------------------------------------|-----|-------|---------|----------|---------|---------|---------|---------|------|
| Coil                                         |     | High  |         | Med High |         | Med Low |         | Low     |      |
|                                              |     | 4-ton | No Coil | 3.5 ton  | No Coil | 3-ton   | No Coil | 2.5-ton | None |
| Static<br>(ESP)<br>in W.C.                   | 0.1 | 1559  | 1503    | 1389     | 1362    | 1227    | 1203    | 923     | 885  |
|                                              | 0.2 | 1506  | 1458    | 1352     | 1330    | 1208    | 1174    | 906     | 863  |
|                                              | 0.3 | 1460  | 1414    | 1310     | 1291    | 1170    | 1146    | 880     | 831  |
|                                              | 0.4 | 1401  | 1352    | 1260     | 1241    | 1136    | 1103    | 845     | 798  |
|                                              | 0.5 | 1333  | 1282    | 1198     | 1179    | 1086    | 1055    | 805     | 758  |
|                                              | 0.6 | 1251  | 1208    | 1133     | 1113    | 1027    | 996     | 757     | 707  |

| <b>E3EB 023H-5 TON and 5 ton accessory blower</b> |     |       |         |          |         |         |         |       |         |
|---------------------------------------------------|-----|-------|---------|----------|---------|---------|---------|-------|---------|
| Coil                                              |     | High  |         | Med High |         | Med Low |         | Low   |         |
|                                                   |     | 5-ton | No Coil | 5-ton    | No Coil | 5-ton   | No Coil | 5-ton | No Coil |
| Static<br>(ESP)<br>in W.C.                        | 0.1 | 1911  | 1886    | 1709     | 1679    | 1394    | 1373    | 1054  | 1032    |
|                                                   | 0.2 | 1860  | 1821    | 1663     | 1630    | 1359    | 1333    | 1027  | 1004    |
|                                                   | 0.3 | 1790  | 1768    | 1620     | 1585    | 1320    | 1296    | 880   | 970     |
|                                                   | 0.4 | 1741  | 1700    | 1563     | 1526    | 1279    | 1252    | 952   | 928     |
|                                                   | 0.5 | 1671  | 1643    | 1511     | 1473    | 1229    | 1201    | 912   | 884     |
|                                                   | 0.6 | 1613  | 1584    | 1444     | 1400    | 1182    | 1147    | 864   | 824     |

## ACCESSORIES

| Description                                                | Part Number     |
|------------------------------------------------------------|-----------------|
| Blower, 2-4 Ton                                            | 902993          |
| Blower, 5 Ton                                              | 902985          |
| 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" Dia. 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          |
| Wall Mount Top Grille (10 pack)                            | 902988          |
| Coil Cabinet Upflow                                        | 902976          |
| Coil Cabinet Downflow (Front return)                       | 903891          |
| Upflow Stand                                               | 904620          |
| Coil Cabinet, Downflow (Front and top return)              | 904067          |

## 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      |

| 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

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the 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 (1. /2015)