

# **CBA25UHE**

**MERIT®** Series

R-410A - Upflow / Horizontal - Constant Torque Blower Motor - 60Hz

# RESIDENTIAL PRODUCT SPECIFICATIONS

Bulletin No. 211047 June 2023

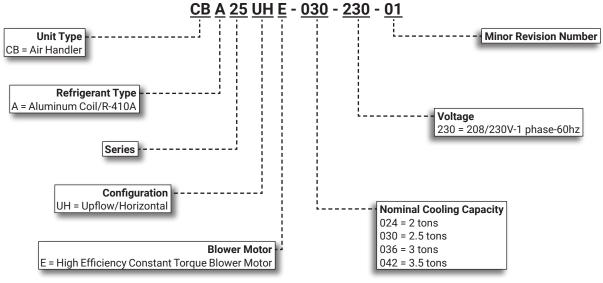






Nominal Capacity - 2 to 3.5 Tons Optional Electric Heat - 4 to 15 kW

# MODEL NUMBER IDENTIFICATION



### **FEATURE HIGHLIGHTS**

- 1. Quantum™ Coil
- 2. Refrigerant Line Connections
- 3. Check and Expansion Valve
- 4. Power Saver™ Constant Torque Blower Motor
- 5. Heavy Gauge Steel Cabinet
- 6. Anti-Microbial Dual Position Drain Pans
- 7. Air Filter
- 8. Transformer
- 9. Electric Heat (option)



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#### **APPROVALS AND WARRANTY**

#### **APPROVALS**

- Tested with matching air conditioners and heat pump units in the Lennox Research Laboratory environmental test room in accordance with AHRI Standard 210/240-2023
- · AHRI Certified system match-ups and expanded ratings, visit www.LennoxPros.com
- ETL Listed to US and Canadian safety standards and components within are bonded for grounding to meet safety standards for servicing required by NEC and CEC
- Optional electric heaters are ETL listed and rated in accordance with US Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations
- · Blower performance data according to unit tests conducted in Lennox air test chamber
- Approved for installation in manufactured housing and mobile homes
- ISO 9001 Registered Manufacturing Quality System

#### WARRANTY

- All covered components
  - · Limited five years in residential applications
  - · Limited one year in non-residential applications

**NOTE** - Refer to Lennox® Basic Limited Warranty at <a href="www.Lennox.com">www.Lennox.com</a> for additional details.

#### **FEATURES**

#### **APPLICATIONS**

- 2 to 3.5 ton nominal sizes
- · Upflow or horizontal applications

**NOTE** - Downflow applications require optional conversion kit.

- Applicable to R-410A expansion valve systems in cooling applications and check and expansion valve systems in heat pump applications
- Wide-range check and expansion valve is factory installed
- Optional field installed electric heaters available in several sizes for additive heating capacity

#### **REFRIGERANT SYSTEM**

# **1** Quantum™ Coil

- Lennox designed and fabricated coil
- Enhanced aluminum alloy tube/enhanced fin coil for superior corrosion resistance
- · Aluminum tubing, hairpins, distributor and header tubes.
- · Ripple-edged aluminum fins
- Twin coil construction assembled in a "A" configuration for large surface area
- Provides excellent heat transfer and low air resistance for maximum efficiency
- · Precise circuiting for uniform refrigerant distribution
- Lanced fins provide maximum exposure of fin surface to air stream
- Rifled tubing provides superior heat transfer
- Coil thoroughly factory tested under high pressure to ensure leakproof construction

# 2 Refrigerant Line Connections

- Copper refrigerant sweat connections on both liquid and suction lines for easy brazing
- Lines extend outside of the cabinet for ease of connection
- · See dimension drawings for locations

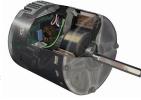
### 3 Check and Expansion Valve

- For use with R-410A systems
- · Wide range valve with Chatleff style fitting
- · Factory installed on all models, internal to cabinet

#### **BLOWER**

# Power Saver™ Constant Torque Blower Motor

- Programmable high efficiency multi-speed blower motor
- By maintaining constant torque output, blower motor can deliver more uniform (but not constant) airflow over the static pressure range



- Programmable multi-speed operation is achieved by the use of an ECM (Electronically Commutated Motor) motor
- Leadless blower motor features simple plug-in connections
- Choice of blower speeds is available
- See blower Data tables
- Blower speed change is easily accomplished by a simple wiring change

#### Blower Assembly

- Each blower is statically and dynamically balanced as an assembly before installation in the unit
- Blower motor is resiliently mounted to blower assembly
- Blower slides out of cabinet for servicing

#### **FEATURES**

#### **CABINET**



- Constructed of heavy gauge galvanized steel
- · Pre-painted cabinet finish
- Completely insulated with foil faced fiberglass insulation
- Removable panels provide complete service access
- · Filter access door for easy filter replacement
- Thumbscrews hold filter door in place
- Electrical inlets provided in sides and top of cabinet
- · See dimension drawing for locations
- Plugs in cabinet for drain connections for upflow (left and right) and horizontal applications
- See dimension drawing

#### Low Leakage Cabinet

 All models have less than 2% air leakage and meet ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment"

#### Upflow/Horizontal Capability (Optional Downflow)

- · Shipped for upflow and horizontal right-hand discharge
- · May be field converted to horizontal left-hand air discharge by repositioning horizontal drain pan
- Optional downflow kit required for field conversion

#### 6 Anti-Microbial Dual Position Drain Pans

- · Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage
- Drain pans designed for upflow or horizontal applications
- · Deep, corrosion resistant high temperature engineered polymer drain pans have dual pipe drains
- See dimension drawing

#### **Optional Accessories**

#### **Downflow Conversion Kit**

- Required for field conversion to downflow position
- · Kit consists of insulated downflow drain pan, insulated drain pan drip shields, coil drip shields, seal plates and support brackets for repositioning coil and drain pan

#### Horizontal Support Frame Kit

- Provides support of unit in horizontal applications
- Consists of (2) 1 x 1-1/2 x 32-5/8 in. and (2) 1 x 3 x 53-7/8 in. painted heavy gauge cold rolled steel support channels with assembly and suspending holes
- · Bolts and nuts furnished for field assembly
- Suspending rods must be field provided

#### Side Return Unit Stand (Upflow Only)

- · Raises unit 16 in. above floor for side return air duct connection
- · Eliminates need for wooden platform construction
- All aluminum construction
- Two adjustable frames fit all sizes

#### Wall Hanging Bracket Kit (Upflow Only)

- · Allows unit to be hung on wall at any height
- Consists of heavy-gauge steel support brackets (one for air handler, one for wall mount)
- · Screws furnished for fastening one bracket to unit
- Bolts for fastening one bracket to wall are field provided

#### High Performance Economizer (Commercial Applications Only)

- Designed for applications requiring outdoor air to be utilized in a commercial HVAC system
- · Allows the entry of fresh outdoor air for free cooling, reducing the requirement for mechanical cooling
- Heavy gauge galvanized steel cabinet lined with thick fiberglass insulation
- Mixed air sensor, outdoor air sensor and 24VAC transformer furnished
- · Approved for California Title 24 building standards
- ASHRAE 90.1-2010 compliant
- See separate Product Specifications bulletin for additional information and available control and sensor options

#### **FILTER**



- Disposable 1 inch filter is furnished
- Filter rack furnished in cabinet for easy filter installation
- · See Specifications tables for filter sizes

#### **FEATURES**

#### **CONTROLS**

- 8 Transformer
  - 24 volt transformer furnished as standard
  - Factory installed in the unit control box
  - Terminal strip furnished

#### **Optional Accessories**

#### M30 Smart Wi-Fi Thermostat

• Wi-Fi-enabled, electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat

- 4 Heat/2 Cool
- Auto-changeover
- · Dual-fuel control with optional outdoor sensor
- Controls dehumidification during cooling mode and humidification during heating mode
- · Offers enhanced capabilities including humidification / dehumidification / dewpoint measurement and control, Humiditrol® control, and equipment maintenance reminders
- Easy to read 4.3 in. color touchscreen (measured diagonally)
- LCD display with backlight shows the current and set temperature, time, inside relative humidity, system status (operating mode and schedules) and outside temperature (optional outdoor sensor required)
- Smooth Setback Recovery starts system early to achieve setpoint at start of program period
- Compressor short-cycle protection (5 minutes)
- Up to four separate schedules are available plus Schedule IO™
- One-Touch Away Mode A guick and easy way to set the cooling and heating setpoints while away
- Smart Away™ Uses geo-fencing technology to determine when the homeowner is within a predetermined distance from the home to operate the system when leaving, away and arriving
- · Wi-Fi remote monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets
- Smart home automation compatible with Amazon Alexa®, Google Assistant and IFTTT

NOTE - See the Lennox® M30 Smart Wi-Fi Thermostat Product Specifications bulletin in the Controls section for more information.

#### Remote Outdoor Temperature Sensor

- Used with the Lennox® M30 Smart Thermostat
- · Outdoor sensor allows thermostat to display outdoor temperature

**NOTE** - Sensor is required for the Enhanced Dehumidification Accessory (EDA).



#### Thermostat

- Thermostat is not furnished with unit
- Lennox Price Book for selection

#### **OPTIONAL ELECTRIC HEAT**



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outside 65°

LENNOX )

- 9 · ETL listed
  - · Field install internal to unit cabinet
  - Available in several kW sizes
  - · See Electric Heat tables
  - · Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life
  - Each element equipped with accurately located limit control with fixed temperature off setting and automatic reset
  - Thermal sequencer relay brings elements on and off line, in sequence and equal increments, with time delay between each
  - Heating control relay(s) furnished as standard
  - Factory assembled with controls installed and wired
  - Electric heat control wiring plugs into mating connector on air handler unit

#### Circuit Breaker (CB) Models

- All "CB" model heaters are equipped with circuit breakers for overload and short circuit protection
- · Factory wired and mounted on electric heat unit
- Current sensitive and temperature actuated
- Manual reset
- Flexible plastic circuit breaker cover protects circuit breaker in areas with high humidity or unconditioned areas to prevent nuisance tripping
- · Circuit breakers qualify as disconnect means at unit in many areas, eliminate the need for field provided disconnect
- Consult local electrical code in your area

#### **Optional Accessories**

#### Single-Point Power Source Control Box

- Control Box may be used with optional electric heat when single power supply is connected to multi-circuit electric heat
- Field installs external to the unit cabinet on either side or
- Constructed of heavy gauge steel, baked enamel finish, prepunched mounting holes, electrical inlet knockouts, and terminal strip
- Removeable cover provides easy access
- Dimensions (H x W x D) 7 x 7 x 4 in.

SPECIF	ICATIONS				
General	Model Number	CBA25UHE-024	CBA25UHE-030	CBA25UHE-036	CBA25UHE-042
Data	Nominal tonnage	2	2.5	3	3.5
	Factory Installed Expansion Valve	12J18	12J18	12J19	12J20
Connectio	ns Suction/Vapor line (o.d.) - in. sweat	3/4	3/4	7/8	7/8
	Liquid line (o.d.) - in. sweat	3/8	3/8	3/8	3/8
	Condensate - in. fpt	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
Indoor	Net face area - ft. <sup>2</sup>	3.77	4.72	5.66	5.66
Coil	Tube outside diameter - in.	3/8	3/8	3/8	3/8
	Number of rows	3	3	3	3
	Fins per inch	15	15	15	15
Blower	Wheel nominal diameter x width - in.	10 x 8	10 x 8	10 x 8	12 x 10
	Blower motor output - hp	1/2	1/2	1/2	3/4
<sup>1</sup> Filters	Size of filter - in.	15 x 20 x 1	15 x 20 x 1	18 x 20 x 1	18 x 20 x 1
Shipping D	Data -1 package - Ibs.	127	133	163	168
ELECTR	RICAL DATA				
	Voltage - 1 phase (60 hz)	208/230V	208/230V	208/230V	208/230V
	<sup>2</sup> Maximum overcurrent protection (unit only)	15	15	15	15
	<sup>3</sup> Minimum circuit ampacity (unit only)	5	5	5	8
	Blower Motor Full Load Amps	4.1	4.1	4.1	6.0

<sup>&</sup>lt;sup>1</sup> Disposable filter.

<sup>&</sup>lt;sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

OPTIONAL ACCESSORIES - ORDER SEPARA	ATELY		
Model	-024 -030	-036	-042
M30 Smart Wi-Fi Thermostat	15Z69	15Z69	15Z69
Remote Outdoor Temperature Sensor	X2658	X2658	X2658
Downflow Conversion Kit	Y9658	Y9659	Y9659
Electric Heat - See Electric Heat Data Tables		4 to 15 kW	
Horizontal Support Frame Kit	56J18	56J18	56J18
Side Return Unit Stand (Upflow Only)	45K32	45K32	45K32
Single-Point Power Source Control Box (for Electric Heat)	21H39	21H39	21H39
Wall Hanging Bracket Kit (Upflow Only)	45K30	45K30	45K30
High Performance Economizer (Commercial Only)	10U53	10U53	10U53

INSTALLATION CLEARANCES WITH ELEC	TRIC HEAT
Cabinet	0 inch (0 mm)
To Plenum	0 inch (0 mm)
To Outlet Duct within 3 feet (914 mm)	0 inch (0 mm)
Floor	0 inch (0 mm) See Note #1
Service / Maintenance	See Note #2

<sup>&</sup>lt;sup>1</sup> Units installed on combustible floors in the downflow position with electric heat do not require a downflow combustible flooring base.

NOTE - If cabinet depth is more than 24 inches (610 mm), allow a minimum of the cabinet depth plus 2 inches (51 mm).

<sup>&</sup>lt;sup>2</sup> HACR type circuit breaker or fuse.

<sup>&</sup>lt;sup>2</sup> Front service access - 24 inches (610 mm) minimum.

#### **BLOWER DATA**

#### **CBA25UHE-024 PERFORMANCE**

External				Air Volume	/ Watts at \	/arious Blov	wer Speeds			
Static Pressure	Та	p 1	Та	p 2	Та	р 3	Та	p 4	Tap 5	
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	676	64	728	78	820	107	1015	180	1054	194
0.20	612	71	679	81	780	114	981	188	1020	203
0.30	514	77	614	93	752	120	953	195	987	212
0.40	448	83	517	102	712	126	922	204	958	219
0.50	400	86	461	106	678	133	899	210	940	226
0.60	337	92	406	112	598	142	865	219	902	235
0.70	270	100	346	119	535	147	831	224	881	241
0.80	203	103	280	127	495	153	799	237	833	248

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place. Electric heaters have no appreciable air resistance.

#### **CBA25UHE-030 PERFORMANCE**

External		Air Volume / Watts at Various Blower Speeds														
Static Pressure	Tap 1		Tap 2		Та	p 3	Та	p 4	Tap 5							
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts						
0.10	775	87	898	125	999	160	1132	219	1341	346						
0.20	731	94	863	131	965	168	1099	229	1309	357						
0.30	690	100	830	138	936	175	1068	237	1289	364						
0.40	647	106	793	145	899	184	1041	245	1259	376						
0.50	565	115	755	152	870	191	1014	254	1239	385						
0.60	522	118	725	160	833	197	985	261	1197	389						
0.70	474	125	635	168	797	208	957	269	1168	395						
0.80	406	132	590	174	715	218	928	278	1139	403						

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place. Electric heaters have no appreciable air resistance.

#### **CBA25UHE-036 PERFORMANCE**

External		Air Volume / Watts at Various Blower Speeds													
Static Pressure	Та	p 1	Та	p 2	Та	p 3	Та	p 4	Tap 5						
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts					
0.10	865	94	1103	162	1303	250	1415	312	1523	386					
0.20	812	104	1060	172	1268	261	1381	325	1492	399					
0.30	747	113	1013	184	1234	271	1352	336	1462	411					
0.40	674	119	970	193	1199	283	1316	348	1434	423					
0.50	620	125	915	205	1153	295	1285	360	1403	434					
0.60	565	131	841	214	1117	306	1238	377	1363	452					
0.70	484	138	790	221	1047	323	1202	386	1315	456					
0.80	422	144	754	229	1004	326	1134	396	1281	467					

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place. Electric heaters have no appreciable air resistance.

#### **BLOWER DATA**

#### CBA25UHE-042 PERFORMANCE

External				Air Volume	/ Watts at \	/arious Blo	wer Speeds				
Static Pressure	Та	p 1	Та	p 2	Та	р 3	Та	p 4	Tap 5		
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	
0.10	982	132	1275	270	1446	390	1560	473	1656	569	
0.20	923	140	1233	280	1413	402	1526	488	1624	581	
0.30	866	148	1199	287	1362	411	1500	498	1594	591	
0.40	812	153	1159	296	1357	420	1469	510	1563	602	
0.50	745	162	1120	304	1325	429	1437	520	1543	613	
0.60	686	169	1081	312	1292	438	1413	530	1505	615	
0.70	642	176	1029	322	1257	448	1345	543	1456	613	
0.80	568	185	981	331	1221	458	1335	544	1417	612	

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place. Electric heaters have no appreciable air resistance.

ELECT	TRIC HEAT DATA		CBA25UHE-024   SINGLE PHASE						
	Electric Heat Model Number		Input		Blower Motor Full Load	<sup>2</sup> Minimum Circuit	<sup>3</sup> Maximum Overcurrent		
	model ramber	Volt	kW	<sup>1</sup> Btuh	Amps	Ampacity	Protection		
4 kW	ECBA25-4 ( <b>19V31</b> )	208	3.0	10,250	4.1	23	<sup>4</sup> 25		
	Terminal Block ECBA25-4CB ( <b>19V32</b> )	220	3.4	11,450	4.1	24	<sup>4</sup> 25		
	30A Circuit Breaker	230	3.7	12,550	4.1	25	<sup>4</sup> 25		
		240	4.0	13,650	4.1	26	30		
5 kW	ECBA25-5 ( <b>16Y36</b> )	208	3.6	12,300	4.1	27	30		
	Terminal Block ECBA25-5CB ( <b>16Y39</b> )	220	4.0	13,800	4.1	28	30		
	30A Circuit Breaker	230	4.4	15,000	4.1	29	30		
		240	4.8	16,400	4.1	30	30		
7.5 kW	ECBA25-7.5 ( <b>16Y37</b> )	208	5.6	19,200	4.1	39	440		
	Terminal Block ECBA25-7.5CB ( <b>16Y41</b> )	220	6.3	21,500	4.1	41	45		
	45A Circuit Breaker	230	6.9	23,500	4.1	43	45		
		240	7.5	25,600	4.1	44	45		
10 kW	ECBA25-10 ( <b>16Y38</b> )	208	7.2	24,600	4.1	48	4 50		
	Terminal Block	220	8.0	27,500	4.1	51	60		
	ECBA25-10CB ( <b>16Y42</b> ) - 60A Circuit Breaker	230	8.8	30,000	4.1	53	60		
		240	9.6	32,700	4.1	55	60		

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>&</sup>lt;sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>&</sup>lt;sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>&</sup>lt;sup>3</sup> HACR type breaker or fuse.

<sup>&</sup>lt;sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 11.

TRIC HEAT DATA					CBA25UHE-030   SINGLE PHASE							
Electric Heat		Input		Blower Motor	Circ	cuit	Overc	urrent		le Point r Source		
Model Number	Volt	kW	<sup>1</sup> Btuh	Full Load Amps	Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>2</sup> Minimum Circuit Ampacity	<sup>3</sup> Maximum Overcurrent Protection		
ECBA25-4 ( <b>19V31</b> )	208	3.0	10,250	4.1	23		<sup>4</sup> 25					
ECBA25-4CB (19V32)	220	3.4	11,450	4.1	24		<sup>4</sup> 25					
30A Circuit Breaker	230	3.7	12,550	4.1	25		<sup>4</sup> 25					
	240	4.0	13,650	4.1	26		30					
ECBA25-5 ( <b>16Y36</b> )	208	3.6	12,300	4.1	27		30					
ECBA25-5CB (16Y39)	220	4.0	13,800	4.1	28		30					
	230	4.4	15,000	4.1	29		30					
	240	4.8	16,400	4.1	30		30					
ECBA25-7.5 ( <b>16Y37</b> ) Terminal Block ECBA25-7.5CB ( <b>16Y41</b> )	208	5.6	19,200	4.1	39		440					
	220	6.3	21,500	4.1	41		45					
45A Circuit Breaker	230	6.9	23,500	4.1	43		45					
	240	7.5	25,600	4.1	44		45					
ECBA25-10 ( <b>16Y38</b> )	208	7.2	24,600	4.1	48		<sup>4</sup> 50					
ECBA25-10CB ( <b>16Y42</b> )	220	8.0	27,500	4.1	51		60					
60A Circuit Breaker	230	8.8	30,000	4.1	53		60					
	240	9.6	32,700	4.1	55		60					
ECBA25-12.5CB ( <b>16Y43</b> )	208	9.4	32,000	4.1	43	19	<sup>4</sup> 45	420	62	70		
(1) 50A and (1) 25A Circuit Breaker	220	10.5	35,800	4.1	45	20	445	420	65	70		
	230	11.5	39,200	4.1	47	21	50	25	68	70		
	240	12.5	42,600	4.1	49	22	50	25	70	70		
5 kW ECBA25-15CB (16Y44)	208	10.8	36,900	4.1	48	22	<sup>4</sup> 50	25	70	70		
(1) 60A and (1) 25A Circuit Breaker	220	12.1	41,300	4.1	51	23	60	25	74	80		
	230	13.2	45,100	4.1	53	24	60	25	77	80		
	240	14.4	49,100	4.1	55	25	60	25	80	80		
	Electric Heat Model Number  ECBA25-4 (19V31) Terminal Block ECBA25-4CB (19V32) 30A Circuit Breaker  ECBA25-5 (16Y36) Terminal Block ECBA25-5CB (16Y39) 30A Circuit Breaker  ECBA25-7.5 (16Y37) Terminal Block ECBA25-7.5CB (16Y41) 45A Circuit Breaker  ECBA25-10 (16Y38) Terminal Block ECBA25-10CB (16Y42) 60A Circuit Breaker  ECBA25-10CB (16Y42) 60A Circuit Breaker	Electric Heat Model Number Volt  ECBA25-4 (19V31) 208 Terminal Block ECBA25-4CB (19V32) 30A Circuit Breaker 240  ECBA25-5CB (16Y36) 208 Terminal Block ECBA25-5CB (16Y39) 30A Circuit Breaker 230 240  ECBA25-7.5 (16Y37) 208 Terminal Block ECBA25-7.5CB (16Y41) 45A Circuit Breaker 230 240  ECBA25-10 (16Y38) 208 Terminal Block ECBA25-10CB (16Y42) 220 60A Circuit Breaker 230 240  ECBA25-10CB (16Y42) 208 ECBA25-12.5CB (16Y43) 208 ECBA25-10CB (16Y42) 230 240  ECBA25-15CB (16Y43) 208 C1) 25A Circuit Breaker 230 240  ECBA25-15CB (16Y44) 208 C1) 60A and (1) 25A Circuit Breaker 230 240  ECBA25-15CB (16Y44) 208 C1) 60A and (1) 25A Circuit Breaker 230 240  ECBA25-15CB (16Y44) 208 C1) 60A and (1) 25A Circuit Breaker 230 240	CEBA25-4 (19V31)   208   3.0   220   3.4   220   3.4   240   4.8   240   7.5   250   260   27.5   260   27.5   260   27.5   27	CBA25-4 (19V31)   208   3.0   10,250   220   3.4   11,450   230   3.7   12,550   240   4.0   13,650   240   4.8   16,400   240   4.8   16,400   240   4.5   230   24,500   240   7.5   25,600   240   7.5   25,600   240   7.5   25,600   240   220   8.8   30,000   240   2	CEBA25-4 (19V31)   Terminal Block ECBA25-5CB (16Y36)   30A Circuit Breaker   230   4.4   15,000   4.1	Section   Part   Part	Ckt 1   Ckt 2	Second   S	Second   S	Electric Heat   Model Number   Volt   kW   1 Btuh   Sing Powe   Sult   Ckt 1   Ckt 2   Ckt 1		

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>&</sup>lt;sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>&</sup>lt;sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>&</sup>lt;sup>3</sup> HACR type breaker or fuse.

<sup>&</sup>lt;sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 11.

ELEC1	TRIC HEAT DATA			CBA25UHE-036   SINGLE PHASE							
	Electric Heat		Inpu	ıt	Blower Motor	Cir	imum cuit acity	Overd	imum current ection	Single Point Power Source	
	Model Number	Volt	kW	<sup>1</sup> Btuh	Full Load Amps	Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>2</sup> Minimum Circuit Ampacity	<sup>3</sup> Maximum Overcurrent Protection
4 kW	ECBA25-4 (19V31)	208	3.0	10,250	4.1	23		425			
	Terminal Block ECBA25-4CB ( <b>19V32</b> )	220	3.4	11,450	4.1	24		425			
	30A Circuit Breaker	230	3.7	12,550	4.1	25		4 25			
		240	4.0	13,650	4.1	26		30			
5 kW	ECBA25-5 ( <b>16Y36</b> )	208	3.6	12,300	4.1	27		30			
	Terminal Block ECBA25-5CB ( <b>16Y39</b> ) 30A Circuit Breaker	220	4.0	13,800	4.1	28		30			
		230	4.4	15,000	4.1	29		30			
		240	4.8	16,400	4.1	30		30			
7.5 kW	ECBA25-7.5 ( <b>16Y37</b> ) Terminal Block ECBA25-7.5CB ( <b>16Y41</b> )	208	5.6	19,200	4.1	39		440			
		220	6.3	21,500	4.1	41		45			
	45A Circuit Breaker	230	6.9	23,500	4.1	43		45			
		240	7.5	25,600	4.1	44		45			
10 kW	ECBA25-10 ( <b>16Y38</b> )	208	7.2	24,600	4.1	48		4 50			
	Terminal Block ECBA25-10CB ( <b>16Y42</b> )	220	8.0	27,500	4.1	51		60			
	60A Circuit Breaker	230	8.8	30,000	4.1	53		60			
		240	9.6	32,700	4.1	55		60			
12.5 kW	/	208	9.4	32,000	4.1	43	19	445	420	62	70
	(1) 50A and (1) 25A Circuit Breaker	220	10.5	35,800	4.1	45	20	445	420	65	70
		230	11.5	39,200	4.1	47	21	50	25	68	70
		240	12.5	42,600	4.1	49	22	50	25	70	70
15 kW	ECBA25-15CB ( <b>16Y44</b> )	208	10.8	36,900	4.1	48	22	4 50	25	70	70
	(1) 60A and (1) 25A Circuit Breaker	220	12.1	41,300	4.1	51	23	60	25	74	80
		230	13.2	45,100	4.1	53	24	60	25	77	80

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

4.1

55

25

60

25

80

80

240 | 14.4 | 49,100

<sup>&</sup>lt;sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>&</sup>lt;sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>&</sup>lt;sup>3</sup> HACR type breaker or fuse.

<sup>&</sup>lt;sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 11.

#### **ELECTRIC HEAT DATA**

### CBA25UHE-042 | SINGLE PHASE

	Electric Heat		Inpu	ıt	Blower Motor	Cir	imum cuit acity		imum urrent ection	Single Point Power Source	
	Model Number	Volt	kW	<sup>1</sup> Btuh	Full Load Amps	Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>2</sup> Minimum Circuit Ampacity	3 Maximum Overcurrent Protection
4 kW	ECBA25-4 (19V31)	208	3.0	10,250	6.0	26		30			
	Terminal Block ECBA25-4CB ( <b>19V32</b> ) 30A Circuit Breaker	220	3.4	11,450	6.0	27		30			
		230	3.7	12,550	6.0	27		30			
	240	4.0	13,650	6.0	28		30				
5 kW	kW ECBA25-5 (16Y36) Terminal Block ECBA25-5CB (16Y39) 30A Circuit Breaker	208	3.6	12,300	6.0	29		30			
		220	4.0	13,800	6.0	30		30			
		230	4.4	15,000	6.0	31		4 35			
		240	4.8	16,400	6.0	33		4 35			
7.5 kW	ECBA25-7.5 ( <b>16Y37</b> )	208	5.6	19,200	6.0	41		45			
	Terminal Block ECBA25-7.5CB ( <b>16Y41</b> ) 45A Circuit Breaker	220	6.3	21,500	6.0	43		45			
		230	6.9	23,500	6.0	45		45			
		240	7.5	25,600	6.0	47		<sup>4</sup> 50			
10 kW	ECBA25-10 ( <b>16Y38</b> )	208	7.2	24,600	6.0	51		60			
	Terminal Block ECBA25-10CB ( <b>16Y42</b> )	220	8.0	27,500	6.0	53		60			
	60A Circuit Breaker	230	8.8	30,000	6.0	55		60			
		240	9.6	32,700	6.0	58		60			
12.5 kW	ECBA25-12.5CB ( <b>16Y43</b> )	208	9.4	32,000	6.0	45	19	445	420	64	70
	(1) 50A and (1) 25A Circuit Breaker	220	10.5	35,800	6.0	47	20	50	420	67	70
		230	11.5	39,200	6.0	49	21	50	25	70	70
		240	12.5	42,600	6.0	51	22	<sup>4</sup> 60	25	73	80
15 kW	ECBA25-15CB ( <b>16Y44</b> )	208	10.8	36,900	6.0	51	22	60	25	73	80
	(1) 60A and (1) 25A Circuit Breaker	220	12.1	41,300	6.0	53	23	60	25	76	80
	` '	230	13.2	45,100	6.0	55	24	60	25	79	80
		240	14.4	49,100	6.0	58	25	60	25	83	90

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>&</sup>lt;sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 11.

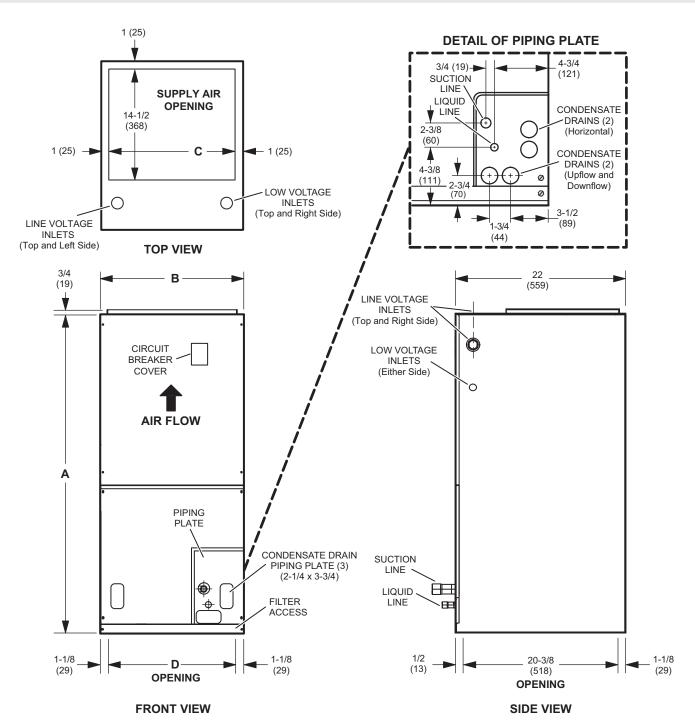
REPLACEMENT CIRCUIT BREAKERS				
Voltage	Description	Catalog No.		
208/240V - 1 Phase	25 amp, 2 pole	41K13		
	30 amp, 2 pole	17K70		
	35 amp, 2 pole	72K07		
	40 amp, 2 pole	49K14		
	45 amp, 2 pole	17K71		
	50 amp, 2 pole	41K12		
	60 amp, 2 pole	17K72		

<sup>&</sup>lt;sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

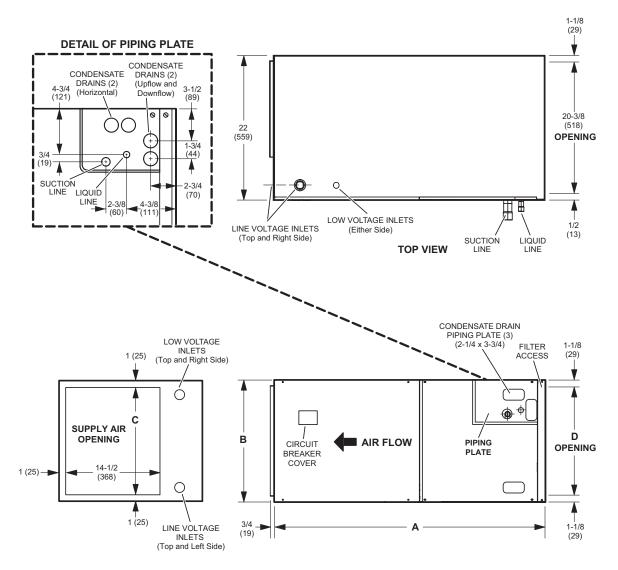
<sup>&</sup>lt;sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>&</sup>lt;sup>3</sup> HACR type breaker or fuse.

DIMENSIONS - UNIT UPFLOW POSITION



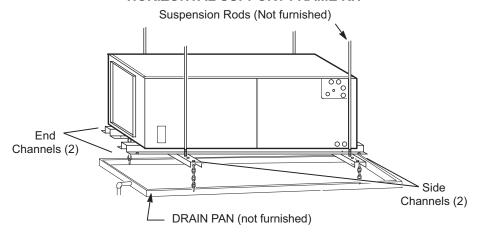
Dimensions	024		030		036, 042	
	in.	mm	in.	mm	in.	mm
Α	45-1/2	1156	47	1194	53-5/8	1362
В	18-1/2	470	18-1/2	470	21-1/2	546
С	16-1/2	419	16-1/2	419	19-1/2	495
D	16-1/4	413	16-1/4	413	19-1/4	489



END VIEW	FRONT	VIEW
END VIEW	FRONT	VIEW

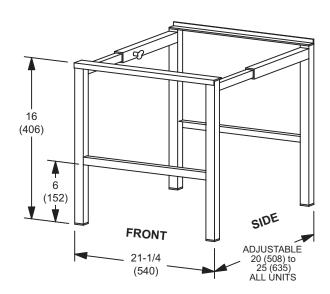
Dimensions	02	24	030		036, 042	
	in.	mm	in.	mm	in.	mm
Α	45-1/2	1156	47	1194	53-5/8	1362
В	18-1/2	470	18-1/2	470	21-1/2	546
С	16-1/2	419	16-1/2	419	19-1/2	495
D	16-1/4	413	16-1/4	413	19-1/4	489

#### HORIZONTAL SUPPORT FRAME KIT



Includes (2) 1 x 1-1/2 x 32-5/8 in. side channels and (2) 1 x 3 x 53-7/8 in. end channels.

# SIDE RETURN UNIT STAND (Upflow Only)







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