R410A UPFLOW/HORIZONTAL HIGH EFFICIENCY BLOWER MOTOR

BCE7E

FORM NO. BCE7E-100 (7/2023)

OMNIGUARD™

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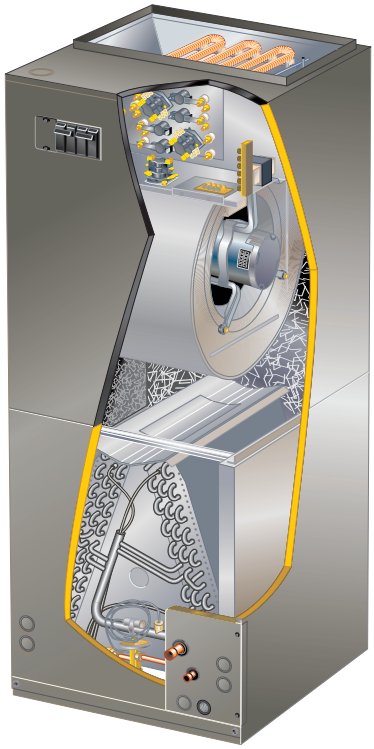
NOMINAL CAPACITY - 1.5 TO 5 TONS
OPTIONAL ELECTRIC HEAT - 5 TO 20 KW

MODEL NUMBER IDENTIFICATION

BC E 7 E 36 M A 4X - 50

- BC — AIR HANDLER
- E — ENHANCED
- 7 — SERIES
- E — **BLOWER MOTOR**
  E = CONSTANT TORQUE
- 36 — **NOMINAL CAPACITY**
  24 = 2 TONS
  30 = 2.5 TONS
  36 = 3 TONS
  48 = 4 TONS
  60 = 5 TONS
- M — **CONFIGURATION**
  M = MULTI-POSITION
- A — **VOLTAGE**
  A = 208-230V/60HZ/1PH
  B = 460V/60HZ/1PH*
  * *BLOWER MOTOR IS 460V - 1 PHASE OPTIONAL ELECTRIC HEAT IS 460V - 3 PHASE CAN BE USED WITH 575V (STEP-DOWN TRANSFORMER REQUIRED)*
- 4X — **METERING DEVICE**
  4X = R410A TXV
- 50 — REVISION CODE

FEATURES



WARRANTY

10 year limited warranty on all parts, extended warranty available*

**Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults to 5-year coverage. See full warranty at www.alliedair.com for terms, conditions, and exclusions.*

APPROVALS

- Tested with matching air conditioners and heat pump units in the environmental test room in accordance with AHRI Standard 210/240
- Optional electric heaters are 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 the air test chamber
- Air handlers are UL Listed to US and Canadian safety standards and components within are bonded for grounding to meet safety standards for servicing required by CEC and NEC
- Air handler units are approved for installation in manufactured housing and mobile homes
- ISO 9001 Registered Manufacturing Quality System

APPLICATIONS

- 1.5 to 5 ton nominal sizes
- Upflow or horizontal applications; Downflow applications with optional conversion kit
- Wide-range check and expansion valve is factory installed
- See bulletins in section Air Conditioners for cooling capacities
- See bulletins in section Heat Pump Outdoor Units for cooling and heating capacities
- Optional field installed electric heaters available in several sizes for additive heating capacity

REFRIGERANT SYSTEM

- Omniguard™ enhanced aluminum alloy tube/enhanced fin coil for superior corrosion resistance
- Internally designed and fabricated coils
- 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

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
- Check and Expansion Valve Furnished
- For use with R-410A systems
- Wide range valve with Chatleff style fitting
- Factory installed on all models, internal to cabinet

BLOWER

- 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

- Designed and built, direct drive blower
- 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

CABINET

- Constructed of heavy-gauge galvanized steel
- Completely insulated with thick fiberglass insulation
- Pre-painted steel cabinets have mildly textured enamel finish with primer coat on unpainted side of all panels
- Units are shipped in one piece but may be disassembled into two separate sections for ease of installation in tight applications – see dimension drawings
- Thick rubber gasket between sections of the two piece cabinets provides an air tight seal
- No external screw heads on sides of cabinet for tight installations without damage to walls or woodwork
- Removable panels provide complete service access
- Electrical inlets provided in sides and top of cabinet – see dimension drawings for locations

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 available for field conversion

DUAL POSITION DRAIN PANS

- Drain pans designed for upflow, downflow or horizontal applications
- Deep, corrosion resistant plastic drain pans have dual pipe drains
- See dimension drawings

ACCESSORIES

DOWNFLOW COMBUSTIBLE FLOORING FLOOR BASE

- Base is required for models with electric heat installed in downflow position on combustible floors

DOWNFLOW CONVERSION KIT

- Required for field conversion to downflow position
- Kit consists of drip shields and 2 brackets for repositioning coil and drain pan – see Specifications table

HORIZONTAL SUPPORT FRAME KIT

- Provides support of unit in horizontal applications
- Consists of (2) 1 x 1-1/2 x 32-5/8" and (2) 1 x 3 x 53-7/8" 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" above floor for side return air duct connection
- Eliminates need for wooden platform construction
- All aluminum construction
- Two adjustable frames fit -018/024 thru -060 models
- 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

CONTROLS

- Transformer and Blower Cooling Relay
- 24 volt transformer with in-line fuse
- Blower cooling relay (460V units only)
- Factory installed in the unit control box
- Terminal strip furnished

OPTIONAL ELECTRIC HEAT

- Field install internal to unit cabinet
- Available in several voltages and 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
- Supplemental thermal cutoff limit control, provides positive protection in case of excessive temperatures
- Thermal sequencer relay brings elements on and off line, in sequence and equal increments, with time delay between each
- Initiates and terminates blower operation
- Heating control relay(s) furnished as standard
- Control box and access cover constructed of heavy gauge galvanized steel
- Factory assembled with controls installed and wired
- Electric heat low voltage controls plug-in to air handler

CIRCUIT BREAKER MODELS

- ECB27 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
- 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

CIRCUIT BREAKER COVER KIT

- Flexible plastic cover protects circuit breaker
- Recommended in areas with high humidity or unconditioned areas to prevent nuisance tripping

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 top
- Constructed of heavy gauge steel, baked enamel finish, pre punched mounting holes, electrical inlet knockouts, and terminal strip
- Removable cover provides easy access
- Dimensions (H x W x D) - 7" x 7" x 4"

INDOOR AIR QUALITY

AIR FILTER

- Tool-less access to filter area for quick and easy servicing
- Disposable frame type filter furnished and factory installed in rails in cabinet
- See Specifications tables for sizes

INSTALLATION CLEARANCES WITH ELECTRIC HEAT

Cabinet	0 inch (0 mm)
To Plenum	1 inch (25 mm)
To Outlet Duct within 3 feet (914 mm)	1 inch (25 mm)
Floor	See Note #1
Service / Maintenance	See Note #2

1 Units installed on combustible floors in the downflow position with electric heat require optional downflow combustible flooring base.
2 Front service access - 24 inches (610 mm) minimum.
NOTE - If cabinet depth is more than 24 inches (610 mm), allow a minimum of the cabinet depth plus 2 inches (51 mm).

SPECIFICATIONS

General Data	Model Number	BCE7E24	BCE7E30	BCE7E36
	Nominal tonnage	2	2.5	3
Connections	Suction (vapor) line (o.d.) - in. sweat	3/4	3/4	3/4
	Liquid line (o.d.) - in. sweat	3/8	3/8	3/8
	Condensate - in. fpt	(2) 3/4	(2) 3/4	(2) 3/4
Indoor Coil	Net face area - ft.^{2}	4.44	5.0	5.0
	Tube outside diameter - in.	3/8	3/8	3/8
	Number of rows	3	3	3
	Fins per inch	14	14	14
Blower	Wheel nominal diameter x width - in.	10 x 8	11 x 8	11 x 8
	Blower motor output - hp	1/2	1/2	1/2
[1] Filters	Size of filter - in.	20 x 20 x 1	20 x 20 x 1	20 x 20 x 1
Shipping Data -1 package - lbs.		137	150	150

ELECTRICAL DATA

Voltage - 1 phase - 60hz	208/230V-1ph	208/230V-1ph	208/230V-1ph
Voltage - 3 phase - 60hz	---	---	[3] 460V-1ph
[2] Maximum overcurrent protection (unit only)- All voltages	15	15	15
Minimum circuit ampacity (unit only) - 208/230V	5	5	5
Blower Motor Full Load Amps - 208/230V	4.1	4.1	4.1
Minimum circuit ampacity (unit only) - 460V	---	---	2.6
Blower Motor Full Load Amps - 460V	---	---	2.1

[1] Disposable frame type filter.

[2] HACR type circuit breaker or fuse.

[3] Blower motor is 460V - 1 phase. Optional electric heat is 460V - 3 phase.

SPECIFICATIONS

General Data	Model Number	BCE7E042	BCE7E048	BCE7E060
	Nominal tonnage	3.5	4	5
Connections	Suction (vapor) line (o.d.) - in. sweat	7/8	7/8	7/8
	Liquid line (o.d.) - in. sweat	3/8	3/8	3/8
	Condensate - in. fpt	(2) 3/4	(2) 3/4	(2) 3/4
Indoor Coil	Net face area - ft.^{2}	7.22	7.22	8.33
	Tube outside diameter - in.	3/8	3/8	3/8
	Number of rows	3	3	3
	Fins per inch	14	14	14
Blower	Wheel nominal diameter x width - in.	12 x 9	12 x 9	12 x 9
	Blower motor output - hp	1	1	1
[1] Filters	Size of filter - in.	20 x 24 x 1	20 x 24 x 1	20 x 24 x 1
Shipping Data -1 package lbs.		186	186	199

ELECTRICAL DATA

Voltage - 1 phase - 60hz	208/230V-1ph	208/230V-1ph	208/230V-1ph
Voltage - 3 phase - 60hz	---	[3] 460V-1ph	[3] 460V-1ph
[2] Maximum overcurrent protection (unit only)- All voltages	15	15	15
Minimum circuit ampacity (unit only) - 208/230V	10	10	10
Blower Motor Full Load Amps - 208/230V	7.6	7.6	7.6
Minimum circuit ampacity (unit only) - 460V	---	5	5
Blower Motor Full Load Amps - 460V	---	4	4

BLOWER DATA

BCE7E-024 BLOWER PERFORMANCE										
External Static Pressure in. w.g.	Air Volume and Motor Watts									
	Tap 1		Tap 2		Tap 3		Tap 4		Tap 5	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
.10	767	78	753	75	826	88	957	131	1095	189
.20	662	68	648	66	791	100	937	142	1063	199
.30	615	76	612	77	750	108	895	149	1040	211
.40	561	83	539	83	711	116	861	160	1010	226
.50	522	87	507	89	681	126	821	172	970	230
.60	450	96	438	93	628	134	778	175	944	237
.70	419	100	411	103	584	142	750	186	905	248
.80	365	110	358	108	521	147	702	194	864	256

BCE7E-030 BLOWER PERFORMANCE										
External Static Pressure in. w.g.	Air Volume and Motor Watts									
	Tap 1		Tap 2		Tap 3		Tap 4		Tap 5	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
.10	1061	115	1104	126	1169	154	1212	166	1278	200
.20	941	103	973	118	1070	144	1157	173	1241	210
.30	789	90	848	104	1019	151	1121	185	1201	223
.40	640	83	789	111	991	165	1077	199	1169	233
.50	525	93	728	118	946	175	1038	209	1124	244
.60	469	101	629	128	900	181	1006	215	1100	256
.70	434	104	581	139	851	194	956	230	1051	268
.80	365	116	521	155	754	208	915	237	1000	275

BCE7E-036 BLOWER PERFORMANCE										
External Static Pressure in. w.g.	Air Volume and Motor Watts at 208V									
	Tap 1		Tap 2		Tap 3		Tap 4		Tap 5	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
.10	1074	134	1099	147	1264	206	1343	240	1498	340
.20	962	121	1027	143	1222	220	1291	253	1467	344
.30	887	126	989	153	1192	234	1269	266	1433	364
.40	852	136	944	164	1144	242	1224	280	1391	378
.50	791	150	894	172	1111	257	1194	286	1365	383
.60	717	160	820	186	1067	266	1153	297	1320	398
.70	649	168	745	202	1037	270	1118	309	1290	407
.80	606	183	697	213	999	284	1081	317	1247	422

BLOWER DATA

BCE7E-042 BLOWER PERFORMANCE										
External Static Pressure in. w.g.	Air Volume and Motor Watts									
	Tap 1		Tap 2		Tap 3		Tap 4		Tap 5	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
.10	1282	177	1346	201	1497	261	1489	261	1723	396
.20	1143	159	1278	204	1475	281	1461	273	1690	408
.30	1067	162	1233	209	1447	297	1427	290	1656	434
.40	1024	175	1199	223	1406	315	1407	305	1639	436
.50	920	189	1154	235	1376	320	1360	324	1599	462
.60	923	197	1099	252	1345	338	1328	336	1573	473
.70	838	204	1022	267	1294	358	1303	351	1541	485
.80	815	218	1003	275	1238	375	1228	373	1494	515

BCE7E-048 BLOWER PERFORMANCE										
External Static Pressure in. w.g.	Air Volume and Motor Watts									
	Tap 1		Tap 2		Tap 3		Tap 4		Tap 5	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
.10	1359	190	1509	257	1718	362	1773	401	1903	511
.20	1238	174	1473	273	1690	380	1758	419	1899	515
.30	1135	172	1453	289	1658	397	1707	434	1868	535
.40	1090	180	1450	290	1619	412	1687	449	1830	553
.50	1032	195	1374	315	1588	431	1660	465	1801	558
.60	980	204	1336	331	1561	440	1618	472	1770	582
.70	929	223	1295	339	1510	457	1593	493	1733	600
.80	867	235	1227	363	1488	473	1552	508	1703	618

BCE7E-060 BLOWER PERFORMANCE										
External Static Pressure in. w.g.	Air Volume and Motor Watts									
	Tap 1		Tap 2		Tap 3		Tap 4		Tap 5	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
.10	1404	206	1704	340	1886	453	1928	481	2268	800
.20	1295	194	1658	349	1849	467	1905	510	2228	829
.30	1256	204	1631	365	1806	489	1869	525	2192	830
.40	1199	217	1594	386	1784	505	1842	546	2169	856
.50	1145	236	1549	394	1751	523	1799	548	2136	870
.60	1091	248	1508	413	1720	534	1775	569	2106	894
.70	978	270	1474	433	1683	549	1741	592	2089	907
.80	946	279	1440	453	1655	566	1709	611	2050	925

ELECTRIC HEAT DATA - BCE7E-024

SINGLE PHASE								
	Electic Heat Model Number	No. of Stages	Input			[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity	[5] Maximum Overcurrent Protection
			Volts	kW	[1] Btuh			
5 kW 4 lbs.	ECB27-5CB (17D47) 35A Circuit breaker	1	208	3.8	12,800	4.1	28	[4] 30
			220	4.2	14,300	4.1	31	35
			230	4.6	15,700	4.1	31	35
			240	5.0	17,100	4.1	31	35
9 kW 5 lbs.	ECB27-9CB (17D52) 60A Circuit breaker	2	208	6.8	23,100	4.1	46	[4] 50
			220	7.6	25,800	4.1	52	60
			230	8.3	28,200	4.1	52	60
			240	9.0	30,700	4.1	52	60

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

[1] Electric heater capacity only - does not include additional blower motor heat capacity.

[2] Amps shown are for blower motor only.

[3] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

[4] Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 22.

[5] HACR type circuit breaker or fuse.

ELECTRIC HEAT DATA - BCE7E-030

SINGLE PHASE													
Electic Heat Model Number		No. of Stages	Input			[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity		[5] Maximum Overcurrent Protection		Single Point Power Source	
			Volts	kW	[1] Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	[3] Minimum Circuit Ampacity	[5] Maximum Overcurrent Protection
5 kW 4 lbs.	ECB27-5CB (17D47) 35A Circuit breaker	1	208	3.8	12,800	4.1	28	---	[4]30	---	---	---
			220	4.2	14,300	4.1	31	---	35	---	---	---
			230	4.6	15,700	4.1	31	---	35	---	---	---
			240	5.0	17,100	4.1	31	---	35	---	---	---
9 kW 5 lbs.	ECB27-9CB (17D52) 60A Circuit breaker	2	208	6.8	23,100	4.1	46	---	[4]50	---	---	---
			220	7.6	25,800	4.1	52	---	60	---	---	---
			230	8.3	28,200	4.1	52	---	60	---	---	---
			240	9.0	30,700	4.1	52	---	60	---	---	---
12.5kW 10 lbs.	ECB27-12.5CB (17D53) (1) 30A Circuit breaker & (1) 45A Circuit breaker	2	208	9.4	32,000	4.1	24	38	[4]25	[4]40	62	70
			220	10.5	35,800	4.1	27	43	30	45	70	70
			230	11.5	39,200	4.1	27	43	30	45	70	70
			240	12.5	42,600	4.1	27	43	30	45	70	70
15 kW 12 lbs.	ECB27-15CB (17D54) (1) 35A Circuit breaker & (1) 60A Circuit Breaker	2	208	11.3	38,400	4.1	28	45	[4]30	[4]45	73	80
			220	12.6	43,000	4.1	31	52	35	60	83	90
			230	13.8	47,000	4.1	31	52	35	60	83	90
			240	15.0	51,200	4.1	31	52	35	60	83	90
THREE PHASE												
8 kW 5 lbs.	ECB27-8 (17D57) Terminal Block	1	208	6.0	20,500	4.1	26	---	30	---	---	---
			220	6.7	22,900	4.1	29	---	30	---	---	---
			230	7.3	25,100	4.1	29	---	30	---	---	---
			240	8.0	27,300	4.1	29	---	30	---	---	---
10 kW 6 lbs.	ECB27-10 (17D58) Terminal Block	1	208	7.5	25,600	4.1	31	---	35	---	---	---
			220	8.4	28,700	4.1	35	---	35	---	---	---
			230	9.2	31,400	4.1	35	---	35	---	---	---
			240	10.0	34,100	4.1	35	---	35	---	---	---
15 kW 12 lbs.	ECB27-15CB (17D59) (1) 50A Circuit breaker	1	208	11.3	38,400	4.1	44	---	45	---	---	---
			220	12.6	43,000	4.1	50	---	50	---	---	---
			230	13.5	47,000	4.1	50	---	50	---	---	---
			240	15.0	51,200	4.1	50	---	50	---	---	---

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

[1] Electric heater capacity only - does not include additional blower motor heat capacity.

[2] Amps shown are for blower motor only.

[3] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

[4] Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 22.

[5] HACR type circuit breaker or fuse.

ELECTRIC HEAT DATA - BCE7E-036

SINGLE PHASE													
Electic Heat Model Number		No. of Stages	Input			[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity		[5] Maximum Overcurrent Protection		Single Point Power Source	
			Volts	kW	[1] Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	[3] Minimum Circuit Ampacity	[5] Maximum Overcurrent Protection
5 kW 4 lbs.	ECB27-5CB (17D47) 35A Circuit breaker	1	208	3.8	12,800	4.1	28	---	[4]30	---	---	---
			220	4.2	14,300	4.1	31	---	35	---	---	---
			230	4.6	15,700	4.1	31	---	35	---	---	---
			240	5.0	17,100	4.1	31	---	35	---	---	---
9 kW 5 lbs.	ECB27-9CB (17D52) 60A Circuit breaker	2	208	6.8	23,100	4.1	46	---	[4]50	---	---	---
			220	7.6	25,800	4.1	52	---	60	---	---	---
			230	8.3	28,200	4.1	52	---	60	---	---	---
			240	9.0	30,700	4.1	52	---	60	---	---	---
12.5kW 10 lbs.	ECB27-12.5CB (17D53) (1) 30A Circuit breaker and (1) 45A Circuit breaker	2	208	9.4	32,000	4.1	24	38	[4]25	[4]40	62	70
			220	10.5	35,800	4.1	27	43	30	45	70	70
			230	11.5	39,200	4.1	27	43	30	45	70	70
			240	12.5	42,600	4.1	27	43	30	45	70	70
15 kW 12 lbs.	ECB27-15CB (17D54) (1) 35A Circuit breaker and (1) 60A Circuit breaker	2	208	11.3	38,400	4.1	28	45	[4]30	[4]45	73	80
			220	12.6	43,000	4.1	31	52	35	60	83	90
			230	13.8	47,000	4.1	31	52	35	60	83	90
			240	15.0	51,200	4.1	31	52	35	60	83	90
20 kW 19 lbs.	ECB27-20CB (17D55) (1) 60A Circuit breaker and (1) 60A Circuit breaker	2	208	15.0	51,200	4.1	46	50	[4]50	[4]50	96	100
			220	16.8	57,300	4.1	52	57	60	60	109	125
			230	18.4	62,700	4.1	52	57	60	60	109	125
			240	20.0	68,200	4.1	52	57	60	60	109	125

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

[1] Electric heater capacity only - does not include additional blower motor heat capacity.

[2] Amps shown are for blower motor only.

[3] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

[4] Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 22.

[5] HACR type circuit breaker or fuse.

ELECTRIC HEAT DATA - BCE7E-042

SINGLE PHASE															
	Electic Heat Model Number	No. of Stages	Volts Input	kW Input	[1] Btuh Input	[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity			[5] Maximum Overcurrent Protection			Single Point Power Source	
							Ckt 1	Ckt 2	Ckt 3	Ckt 1	Ckt 2	Ckt 3	[3] Minimum Circuit Ampacity	[5] Maximum Overcurrent Protection
5 kW 4 lbs.	ECB27-5CB (17D47) 35A Circuit breaker	1	208	3.8	12,800	7.6	32	---	---	35	---	---	---	---
			220	4.2	14,300	7.6	36	---	---	[4]40	---	---	---	---
			230	4.6	15,700	7.6	36	---	---	[4]40	---	---	---	---
			240	5.0	17,100	7.6	36	---	---	[4]40	---	---	---	---
9 kW 5 lbs.	ECB27-9CB (17D52) 60A Circuit breaker	2	208	6.8	23,100	7.6	50	---	---	[4]50	---	---	---	---
			220	7.6	25,800	7.6	56	---	---	60	---	---	---	---
			230	8.3	28,200	7.6	56	---	---	60	---	---	---	---
			240	9.0	30,700	7.6	56	---	---	60	---	---	---	---
12.5 kW 10 lbs.	ECB27-12.5CB (17D53) (1) 30A Circuit breaker and (1) 45A Circuit breaker	2	208	9.4	32,000	7.6	28	38	---	30	[4]40	---	66	80
			220	10.5	35,800	7.6	31	43	---	[4]35	45	---	75	80
			230	11.5	39,200	7.6	31	43	---	[4]35	45	---	75	80
			240	12.5	42,600	7.6	31	43	---	[4]35	45	---	75	80
15 kW 12 lbs.	ECB27-15CB (17D54) (1) 35A Circuit breaker and (1) 60A Circuit breaker	2	208	11.3	38,400	7.6	32	45	---	35	[4]45	---	77	80
			220	12.6	43,000	7.6	36	52	---	[4]40	60	---	88	90
			230	13.5	47,000	7.6	36	52	---	[4]40	60	---	88	90
			240	15.0	51,200	7.6	36	52	---	[4]40	60	---	88	90
20 kW 19 lbs.	ECB27-20CB (17D55) (1) 60A Circuit breaker and (1) 60A Circuit breaker	2	208	15.0	51,200	7.6	50	50	---	[4]50	[4]50	---	100	125
			220	16.8	57,300	7.6	56	57	---	60	60	---	114	125
			230	18.4	62,700	7.6	56	57	---	60	60	---	114	125
			240	20.0	68,200	7.6	56	57	---	60	60	---	114	125
25 kW 19 lbs.	ECB27-25CB (17D56) (1) 60A Circuit breaker and (2) 45A Circuit breakers	3	208	18.8	64,100	7.6	47	38	38	[4]50	[4]40	[4]40	123	125
			220	21.0	71,700	7.6	53	43	43	60	45	45	140	150
			230	23.0	78,300	7.6	53	43	43	60	45	45	140	150
			240	25.0	85,300	7.6	53	43	43	60	45	45	140	150

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

[1] Electric heater capacity only - does not include additional blower motor heat capacity.

[2] Amps shown are for blower motor only.

[3] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

[4] Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 22.

[5] HACR type circuit breaker or fuse.

ELECTRIC HEAT DATA - BCE7E-048

SINGLE PHASE

Electic Heat Model Number		No. of Stages	Input			[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity			[5] Maximum Overcurrent Protection			Single Point Power Source	
			Volts	kW	[1] Btuh		Ckt 1	Ckt 2	Ckt 3	Ckt 1	Ckt 2	Ckt 3	3 Minimum Circuit Ampacity	5 Maximum Overcurrent Protection
5 kW 4 lbs.	ECB27-5CB (17D47) 35A Circuit breaker	1	208	3.8	12,800	7.6	32	---	---	35	---	---	---	---
			220	4.2	14,300	7.6	36	---	---	[4]40	---	---	---	---
			230	4.6	15,700	7.6	36	---	---	[4]40	---	---	---	---
			240	5.0	17,100	7.6	36	---	---	[4]40	---	---	---	---
9 kW 5 lbs.	ECB27-9CB (17D52) 60A Circuit breaker	2	208	6.8	23,100	7.6	50	---	---	[4]50	---	---	---	---
			220	7.6	25,800	7.6	56	---	---	60	---	---	---	---
			230	8.3	28,200	7.6	56	---	---	60	---	---	---	---
			240	9.0	30,700	7.6	56	---	---	60	---	---	---	---
12.5 kW 10 lbs.	ECB27-12.5CB (17D53) (1) 30A Circuit breaker & (1) 45A Circuit breaker	2	208	9.4	32,000	7.6	28	38	---	30	[4]40	---	66	70
			220	10.5	35,800	7.6	31	43	---	[4]35	45	---	75	80
			230	11.5	39,200	7.6	31	43	---	[4]35	45	---	75	80
			240	12.5	42,600	7.6	31	43	---	[4]35	45	---	75	80
15 kW 12 lbs.	ECB27-15CB (17D54) (1) 35A Circuit breaker & (1) 60A Circuit breaker	2	208	11.3	38,400	7.6	32	45	---	35	[4]45	---	77	80
			220	12.6	43,000	7.6	36	52	---	[4]40	60	---	88	90
			230	13.5	47,000	7.6	36	52	---	[4]40	60	---	88	90
			240	15.0	51,200	7.6	36	52	---	[4]40	60	---	88	90
20 kW 19 lbs.	ECB27-20CB (17D55) (1) 60A Circuit breaker & (1) 60A Circuit breaker	2	208	15.0	51,200	7.6	50	50	---	[4]50	[4]50	---	100	125
			220	16.8	57,300	7.6	56	57	---	60	60	---	114	125
			230	18.4	62,700	7.6	56	57	---	60	60	---	114	125
			240	20.0	68,200	7.6	56	57	---	60	60	---	114	125
25 kW 19 lbs.	ECB27-25CB (17D56) (1) 60A Circuit breaker & (2) 45A Circuit breakers	3	208	18.8	64,100	7.6	47	38	38	[4]50	[4]40	[4]40	123	125
			220	21.0	71,700	7.6	53	43	43	60	45	45	140	150
			230	23.0	78,300	7.6	53	43	43	60	45	45	140	150
			240	25.0	85,300	7.6	53	43	43	60	45	45	140	150

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

[1] Electric heater capacity only - does not include additional blower motor heat capacity.

[2] Amps shown are for blower motor only.

[3] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

[4] Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 22.

[5] HACR type circuit breaker or fuse.

ELECTRIC HEAT DATA - BCE7E-060

SINGLE PHASE

Electic Heat Model Number		No. of Stages	Input			[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity			[5] Maximum Overcurrent Protection			Single Point Power Source	
			Volts	kW	[1] Btuh		Ckt 1	Ckt 2	Ckt 3	Ckt 1	Ckt 2	Ckt 3	[3] Minimum Circuit Ampacity	[5] Maximum Overcurrent Protection
5 kW 4 lbs.	ECB27-5CB (17D47) 35A Circuit breaker	1	208	3.8	12,800	7.6	32	---	---	35	---	---	---	---
			220	4.2	14,300	7.6	36	---	---	[4]40	---	---	---	---
			230	4.6	15,700	7.6	36	---	---	[4]40	---	---	---	---
			240	5.0	17,100	7.6	36	---	---	[4]40	---	---	---	---
9 kW 5 lbs.	ECB27-9CB (17D52) 60A Circuit breaker	2	208	6.8	23,100	7.6	50	---	---	[4]50	---	---	---	---
			220	7.6	25,800	7.6	56	---	---	60	---	---	---	---
			230	8.3	28,200	7.6	56	---	---	60	---	---	---	---
			240	9.0	30,700	7.6	56	---	---	60	---	---	---	---
12.5 kW 10 lbs.	ECB27-12.5CB (17D53) (1) 30A Circuit breaker & (1) 45A Circuit breaker	2	208	9.4	32,000	7.6	28	38	---	30	[4]40	---	66	70
			220	10.5	35,800	7.6	31	43	---	[4]35	45	---	75	80
			230	11.5	39,200	7.6	31	43	---	[4]35	45	---	75	80
			240	12.5	42,600	7.6	31	43	---	[4]35	45	---	75	80
15 kW 12 lbs.	ECB27-15CB (17D54) (1) 35A Circuit breaker & (1) 60A Circuit breaker	2	208	11.3	38,400	7.6	32	45	---	35	[4]45	---	77	80
			220	12.6	43,000	7.6	36	52	---	[4]40	60	---	88	90
			230	13.5	47,000	7.6	36	52	---	[4]40	60	---	88	90
			240	15.0	51,200	7.6	36	52	---	[4]40	60	---	88	90
20 kW 19 lbs.	ECB27-20CB (17D55) (1) 60A Circuit breaker & (1) 60A Circuit breaker	2	208	15.0	51,200	7.6	50	50	---	[4]50	[4]50	---	100	125
			220	16.8	57,300	7.6	56	57	---	60	60	---	114	125
			230	18.4	62,700	7.6	56	57	---	60	60	---	114	125
			240	20.0	68,200	7.6	56	57	---	60	60	---	114	125
25 kW 19 lbs.	ECB27-25CB (17D56) (1) 60A Circuit breaker & (2) 45A Circuit breakers	3	208	18.8	64,100	7.6	47	38	38	[4]50	[4]40	[4]40	123	125
			220	21.0	71,700	7.6	53	43	43	60	45	45	140	150
			230	23.0	78,300	7.6	53	43	43	60	45	45	140	150
			240	25.0	85,300	7.6	53	43	43	60	45	45	140	150

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

[1] Electric heater capacity only - does not include additional blower motor heat capacity.

[2] Amps shown are for blower motor only.

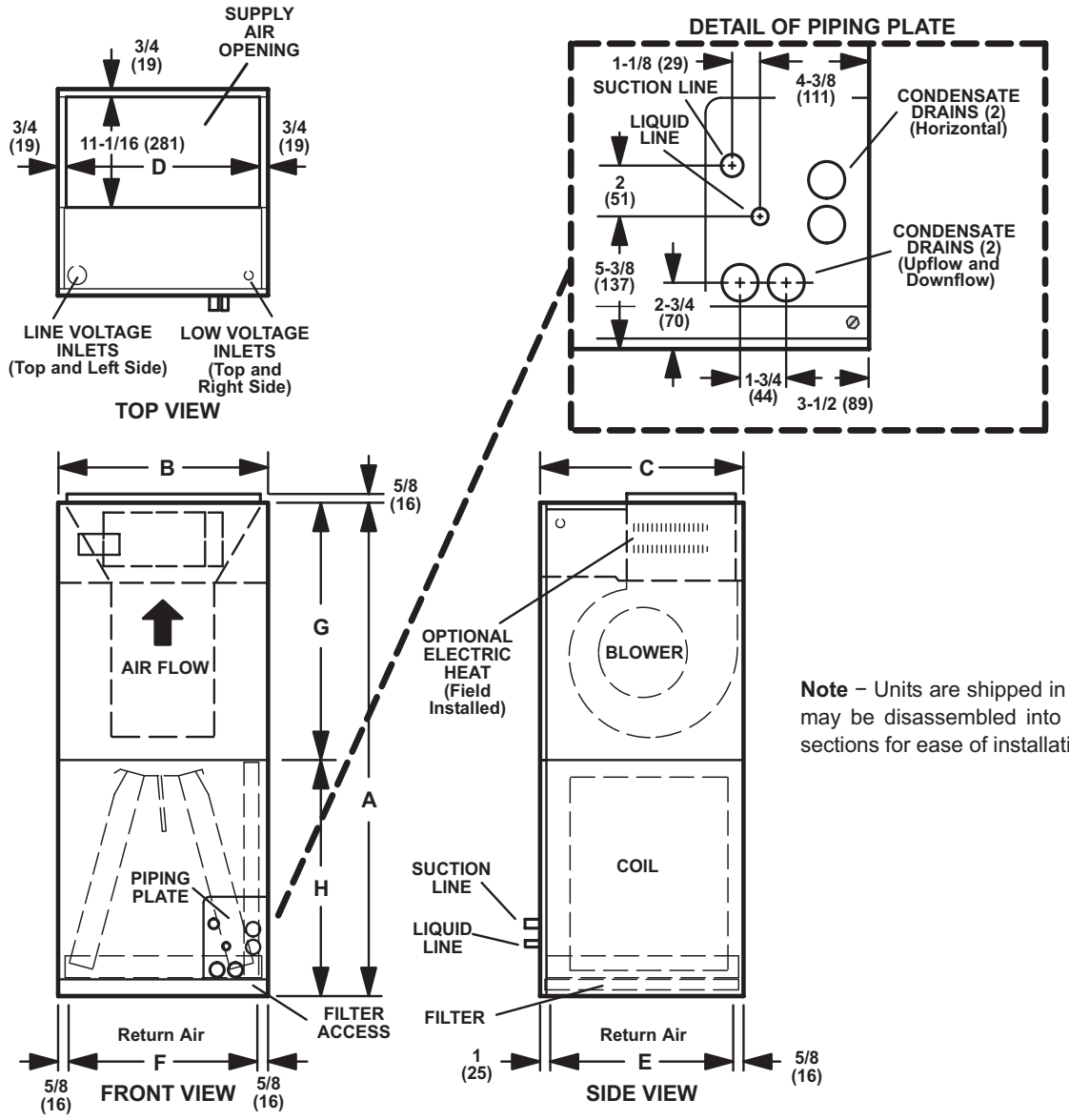
[3] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

[4] Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 21.

[5] HACR type circuit breaker or fuse.

DIMENSIONS - INCHES (MM)

UPFLOW POSITION

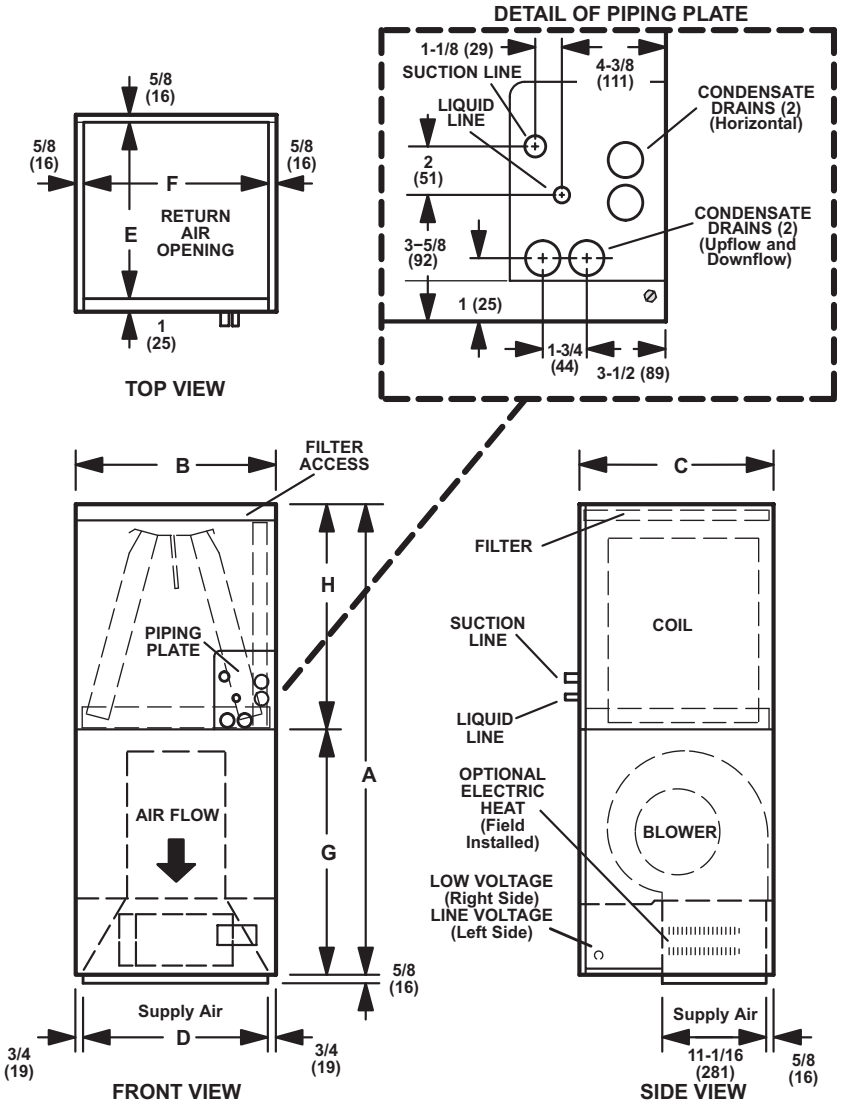


Note − Units are shipped in one piece but may be disassembled into two separate sections for ease of installation.

Model No.		A	B	C	D	E	F	G	H
BCE7E-024	in.	49-1/4	21-1/4	20-5/8	19-3/4	19	20	24-5/8	24-5/8
	mm	1251	540	524	502	483	508	625	625
BCE7E-030 BCE7E-036	in.	51	21-1/4	22-5/8	19-3/4	21	20	26-3/8	24-5/8
	mm	1295	540	575	502	533	508	670	625
BCE7E-042 BCE7E-048	in.	58-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	30-5/8
	mm	1486	540	625	502	584	508	708	778
BCE7E-060	in.	62-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	34-5/8
	mm	1588	540	625	502	584	508	708	879

DIMENSIONS - INCHES (MM)

DOWNFLOW POSITION with Optional Downflow Conversion Kit (Required)

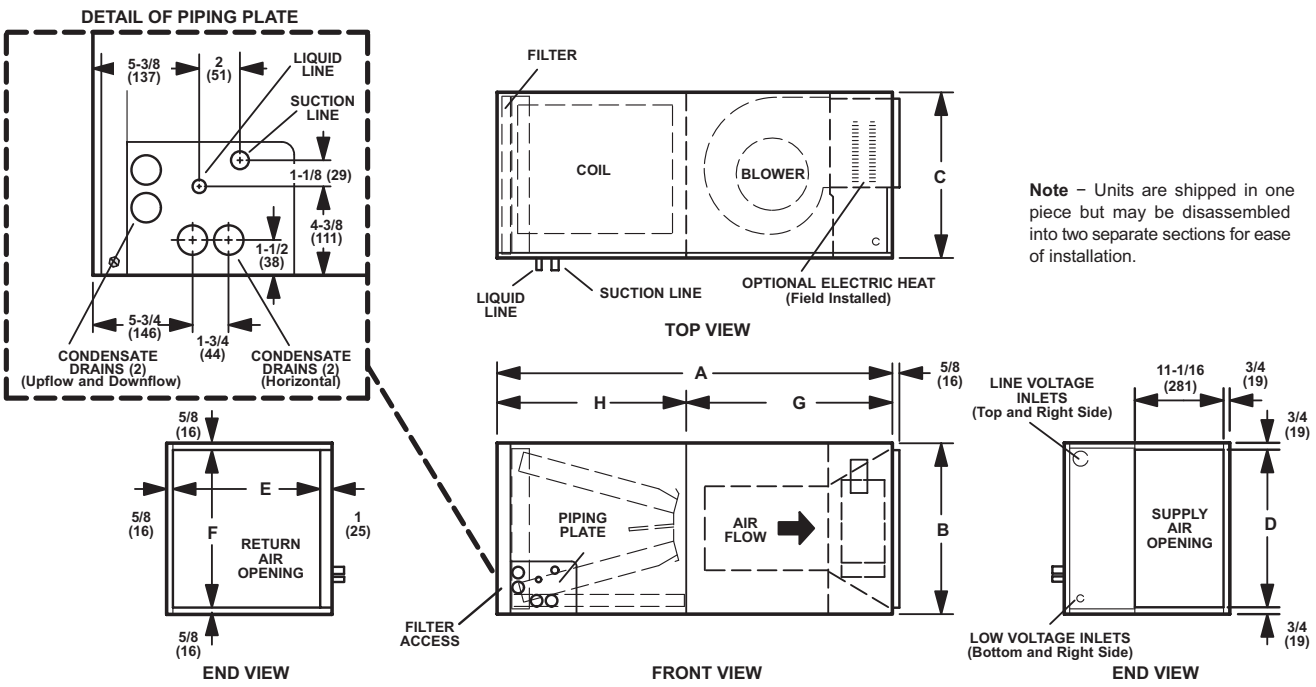


Note – Units are shipped in one piece but may be disassembled into two separate sections for ease of installation.

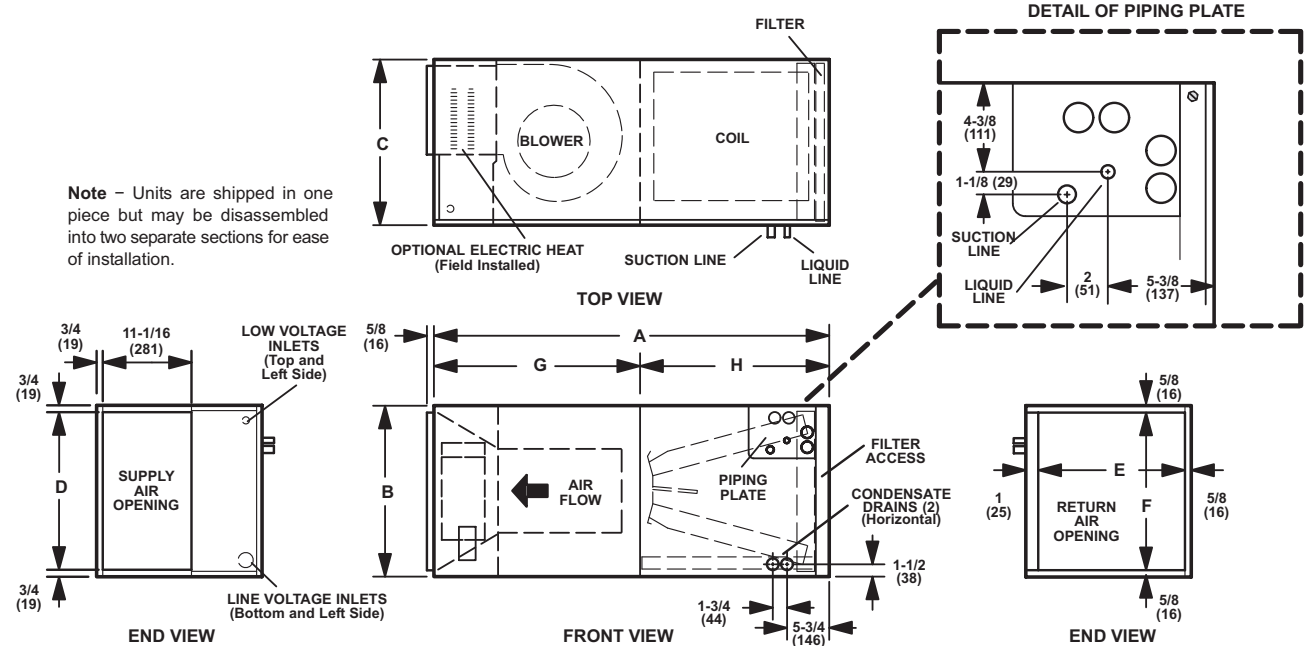
Model No.		A	B	C	D	E	F	G	H
BCE7E-024	in.	49-1/4	21-1/4	20-5/8	19-3/4	19	20	24-5/8	24-5/8
	mm	1251	540	524	502	483	508	625	625
BCE7E-030	in.	51	21-1/4	22-5/8	19-3/4	21	20	26-3/8	24-5/8
BCE7E-036	mm	1295	540	575	502	533	508	670	625
BCE7E-042	in.	58-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	30-5/8
BCE7E-048	mm	1486	540	625	502	584	508	708	778
BCE7E-060	in.	62-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	34-5/8
	mm	1588	540	625	502	584	508	708	879

DIMENSIONS - INCHES (MM)

RIGHT-HAND AIR DISCHARGE

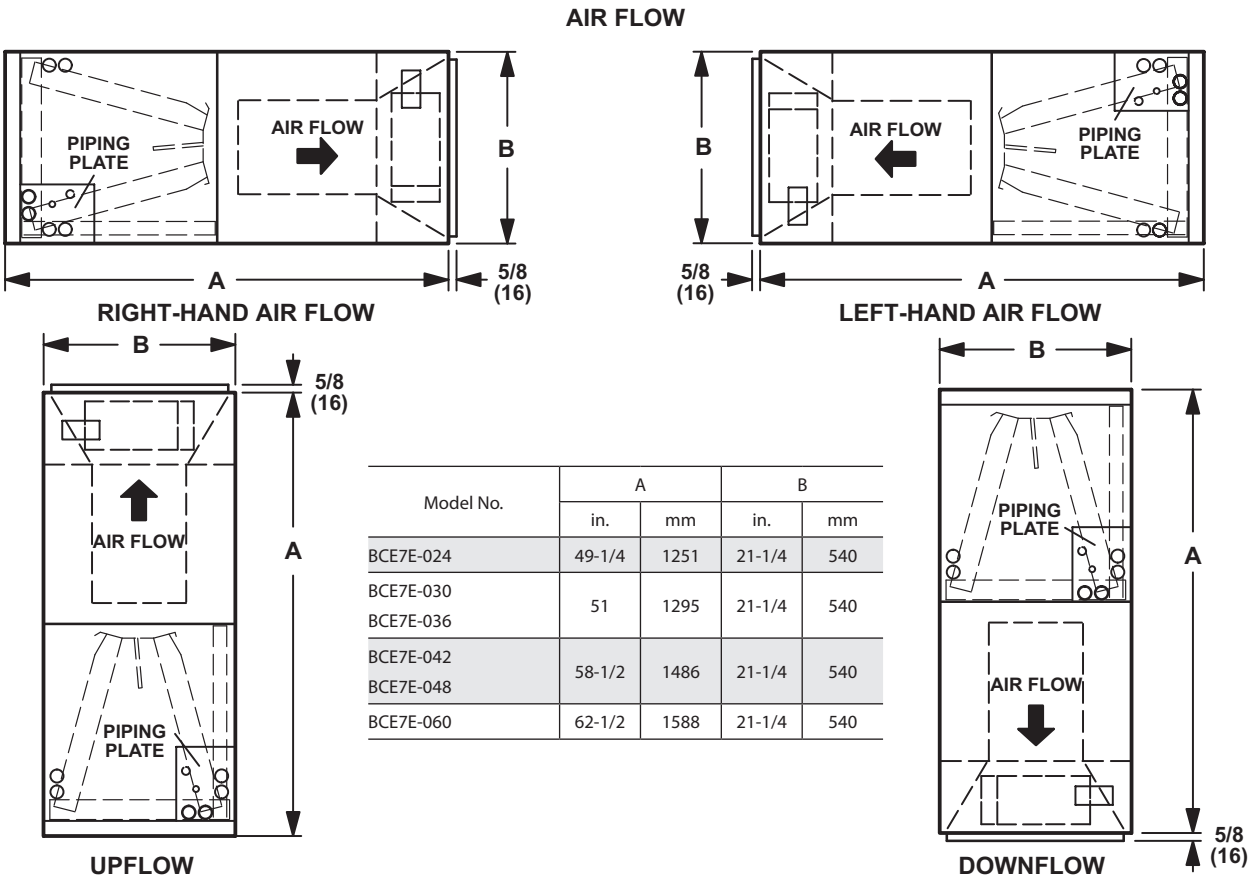


LEFT-HAND AIR DISCHARGE



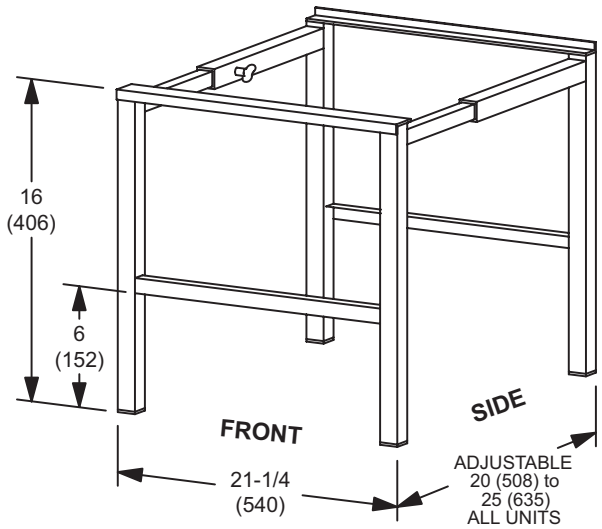
Model No.	A		B		C		D		E		F		G		H	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
BCE7E-024	49-1/4	1251	21-1/4	540	20-5/8	524	19-3/4	502	19	483	20	508	24-5/8	625	24-5/8	625
BCE7E-030 BCE7E-036	51	1295	21-1/4	540	22-5/8	575	19-3/4	502	21	533	20	508	26-3/8	670	24-5/8	625
BCE7E-042 BCE7E-048	58-1/2	1486	21-1/4	540	24-5/8	625	19-3/4	502	23	584	20	508	27-7/8	708	30-5/8	778
BCE7E-060	62-1/2	1588	21-1/4	540	24-5/8	625	19-3/4	502	23	584	20	508	27-7/8	708	34-5/8	879

DIMENSIONS - INCHES (MM)



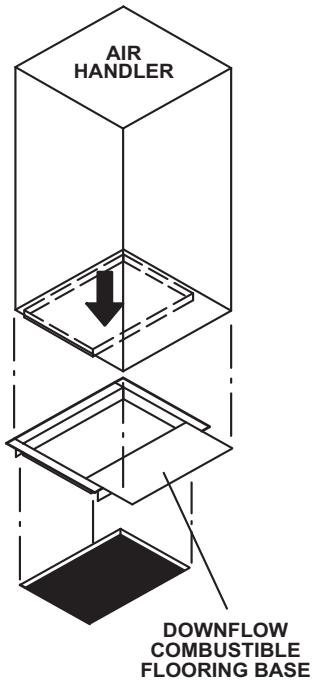
Model No.	A		B	
	in.	mm	in.	mm
BCE7E-024	49-1/4	1251	21-1/4	540
BCE7E-030 BCE7E-036	51	1295	21-1/4	540
BCE7E-042 BCE7E-048	58-1/2	1486	21-1/4	540
BCE7E-060	62-1/2	1588	21-1/4	540

SIDE RETURN UNIT STAND
(Upflow Only)

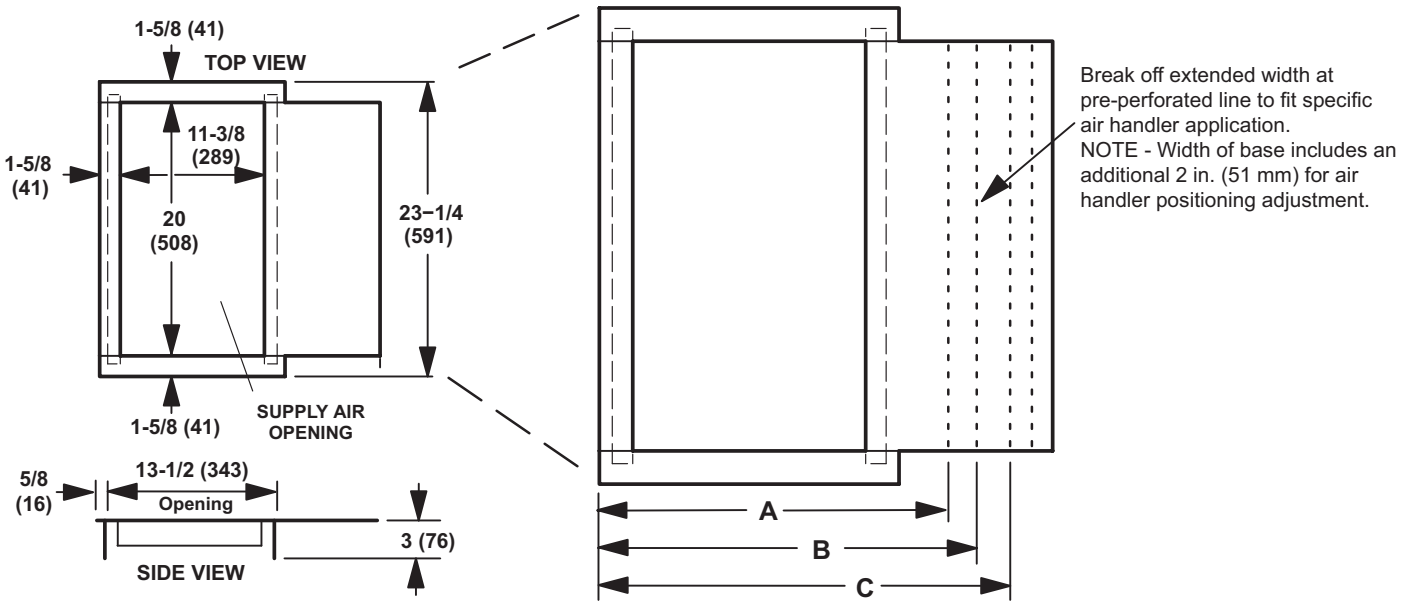


DIMENSIONS - INCHES (MM)

DOWNFLOW COMBUSTIBLE FLOORING BASE



Catalog No. – 44K15



Model No.	018, 024		030, 036		042, 048, 060	
	in.	mm	in.	mm	in.	mm
A	22-5/8	575	- - -	- - -	- - -	- - -
B	- - -	- - -	24-5/8	625	- - -	- - -
C	- - -	- - -	- - -	- - -	26-5/8	676