# **PRODUCT SPECIFICATIONS**

R-410A - Upflow / Horizontal High Efficiency Blower Motor

BCE7E



## MODEL NUMBER IDENTIFICATION



# To place a order please use model<sup>#</sup> highlighted in yellow

Model Order	Model	
Number for PO	Nomenclature	Model Description
1.913029	BCE7E36MA4X	3 Ton Commercial Condenser 208/230v 3 Phase
1.913031	BCE7E48MA4X	4 Ton Commercial Condenser 208/230v 3 Phase
1.913032	BCE7E60MA4X	5 Ton Commercial Condenser 208/230v 3 Phase
1.913025	BCE7E36MB4X	3 Ton Commercial Condenser 460v 3 Phase
1.913026	BCE7E48MB4X	4 Ton Commercial Condenser 460v 3 Phase
1.913027	BCE7E60MB4X	5 Ton Commercial Condenser 460v 3 Phase

## FEATURES

## WARRANTY

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.



Omniguard<sup>™</sup> 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.



# FEATURES

## **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.

# FEATURES

## **OPTIONAL 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  $1-1/2 \times 32-5/8$  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 -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.

## OTHER ACCESSORIES

## **Circuit Breaker Cover Kit**

Flexible plastic cover protects circuit breaker.

Recommended in areas with high humidity or unconditioned areas to prevent nuisance tripping.

# FEATURES

## **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 in.

## 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

<sup>1</sup> Units installed on combustible floors in the downflow position with electric heat require optional downflow combustible flooring base.

<sup>2</sup> 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).

SPECIFICATI General Data	ONS Model Number		1		
General Data	Model Number		1		
		BCE7E36	BCE7E048	BCE7E060	
	Nominal tonnage	3	4	5	
Connections	Suction (vapor) line (o.d.) - in. sweat	3/4	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. <sup>2</sup>	5.0	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.	11 x 8	12 x 9	12 x 9	
	Blower motor output - hp	1/2	1	1	
<sup>1</sup> Filters	Size of filter - in.	20 x 20 x 1	20 x 24 x 1	20 x 24 x 1	
Shipping Data -1	package - Ibs.	150	186	199	
ELECTRICAL	DATA				
	Voltage - 1 phase - 60hz	208/230V-1ph	208/230V-1ph	208/230V-1ph	
	Voltage - 3 phase - 60hz	<sup>3</sup> 460V-1ph	<sup>3</sup> 460V-1ph	<sup>3</sup> 460V-1ph	
<sup>2</sup> Maximum o	vercurrent protection (unit only)- All voltages	15	15	15	
Minimum circ	cuit ampacity (unit only) - 208/230V	5	10	10	
Blowe	r Motor Full Load Amps - 208/230V	4.1	7.6	7.6	
Minimun	n circuit ampacity (unit only) - 460V	2.6	5	5	
B	lower Motor Full Load Amps - 460V	2.1	4	4	
OPTIONAL A	CCESSORIES - ORDER SEPA	RATELY			
Downflow Comb	ustible Flooring Base	44K15	44K15	44K15	
Downflow Conve	rsion Kit	83M57	83M57	83M57	
Electric Heat - Se	ee Electric Heat Data tables	5 to 20 kW	5 to 25 kW		
Electric Heat Cire	cuit Breaker Cover Kit	82W01	82W01	82W01	
Horizontal Suppo	ort Frame Kit	56J18	56J18	56J18	
Side Return Unit	Stand (Upflow Only)	45K32	45K32	45K32	
				21H39	
	er Source Control Box	21H39	21H39	21H39	

<sup>1</sup> Disposable frame type filter.

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

<sup>3</sup> Blower motor is 460V - 1 phase. Optional electric heat is 460V - 3 phase.

SPECIFICA	TIONS				
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. <sup>2</sup>	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	
<sup>1</sup> 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	
ELECTRICA	AL DATA				
	Voltage - 1 phase - 60hz	208/230V-1ph	208/230V-1ph	208/230V-1ph	
	Voltage - 3 phase - 60hz		<sup>3</sup> 460V-1ph	<sup>3</sup> 460V-1ph	
<sup>2</sup> Maximun	n overcurrent protection (unit only)- All voltages	15	15	15	
Minimum	circuit ampacity (unit only) - 208/230V	10	10	10	
Blo	ower Motor Full Load Amps - 208/230V	7.6	7.6	7.6	
Minim	num circuit ampacity (unit only) - 460V		5	5	
	Blower Motor Full Load Amps - 460V		4	4	
OPTIONAL	ACCESSORIES - ORDER SEPAR	ATELY			
Downflow Con	nbustible Flooring Base	44K15	44K15	44K15	
Downflow Con	version Kit	83M57	83M57	83M57	
Electric Heat -	See Electric Heat Data tables		5 to 25 kW	l	
Electric Heat C	Circuit Breaker Cover Kit	82W01	82W01	82W01	
Horizontal Sup	port Frame Kit	56J18	56J18	56J18	
Side Return Ur	nit Stand (Upflow Only)	45K32	45K32	45K32	
Single Point Po	ower Source Control Box	21H39	21H39	21H39	
Wall Hanging I	Bracket Kit (Upflow Only)	45K30	45K30	45K30	

<sup>1</sup> Disposable frame type filter.

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

<sup>3</sup> Blower motor is 460V - 1 phase. Optional electric heat is 460V - 3 phase.

# **BLOWER DATA**

#### **BCE7E-036 BLOWER PERFORMANCE**

External	Air Volume and Motor Watts at 208V													
Static Pressure	Tap 1		Tap 2		Та	р 3	Та	p 4	Та	р 5				
in. w.g.	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				

#### **BCE7E-048 BLOWER PERFORMANCE**

External		Air Volume and Motor Watts													
Static Pressure	Та	р1	Та	Tap 2		р 3	Та	p 4	Та	Tap 5					
in. w.g.	w.g. 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	Air Volume and Motor Watts												
Static Pressure	Та	Tap 1		Tap 2		р 3	Taj	p 4	Tap 5				
in. w.g.	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-036**

## THREE PHASE

	Electic Heat	No.		Inp	ut	<sup>2</sup> Blower Motor	Cir	imum cuit acity	Overc	imum urrent ection		Point Source
	Model Number	of Stages	S Volts kW <sup>1</sup> Btuh		<sup>1</sup> Btuh	Full Load Amps	Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>3</sup> Minimum Circuit Ampacity	<sup>5</sup> Maximum Overcurrent Protection
8 kW	ECB27-8 ( <b>17D57</b> )	1	208	6.0	20,500	4.1	26		30			
5 lbs.	Terminal Block		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	ECB27-10 ( <b>17D58</b> )	1	208	7.5	25,600	4.1	31		35			
6 lbs.	Terminal Block		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			
	ECB27-10 ( <b>17D62</b> )	1	440	8.4	28,700	2.1	16		20			
	(3) 20A Fuses		460	9.2	31,400	2.1	17		20			
			480	10.0	34,100	2.1	17		20			
15 kW	ECB27-15CB ( <b>17D59</b> )	1	208	11.3	38,400	4.1	44		<sup>₄</sup> 45			
12 lbs.	(1) 50A Circuit breaker		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			
	ECB27-15 ( <b>17D63</b> )	1	440	12.6	43,000	2.1	23		25			
	(3) 25A Fuses		460	13.5	47,000	2.1	24		25			
			480	15.0	51,200	2.1	25		30			
20 kW	ECB27-20CB ( <b>17D60</b> )	2	208	15.0	51,200	4.1	31	26	35	<sup>4</sup> 30	57	60
19 lbs.	(2) 35A Circuit breaker		220	16.8	57,300	4.1	35	30	35	<sup>4</sup> 30	65	70
			230	18.4	62,700	4.1	35	30	35	<sup>₄</sup> 30	65	70
			240	20.0	68,200	4.1	35	30	35	<sup>4</sup> 30	65	70

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

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

<sup>2</sup> Amps shown are for blower motor only.

<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.
<sup>4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 25.

<sup>5</sup> HACR type circuit breaker or fuse.

# **ELECTRIC HEAT DATA - BCE7E-048**

## THREE PHASE

	Electic Heat	No. of		Inpu	ıt	<sup>2</sup> Blower Motor	Cir	imum cuit acity	Overc	imum urrent ection	-	e Point Source
	Model Number	Stages	Volts	kW	<sup>1</sup> Btuh	Full Load Amps	Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>3</sup> Minimum Circuit Ampacity	<sup>5</sup> Maximum Overcurrent Protection
8 kW	ECB27-8 ( <b>17D57</b> )	1	208	6.0	20,500	7.6	30		30			
5 lbs.	Terminal block		220	6.7	22,900	7.6	33		35			
			230	7.3	25,100	7.6	33		35			
			240	8.0	27,300	7.6	33		35			
10 kW	ECB27-10 ( <b>17D58</b> )	1	208	7.5	25,600	7.6	36		40			
6 lbs.	Terminal Block		220	8.4	28,700	7.6	40		40			
			230	9.2	31,400	7.6	40		40			
			240	10.0	34,100	7.6	40		40			
_	ECB27-10 ( <b>17D62</b> )	1	440	8.4	28,700	4.0	18		20			
	(3) 20A Fuses		460	9.2	31,400	4.0	19		20			
			480	10.0	34,100	4.0	20		25			
15 kW	ECB27-15CB ( <b>17D59</b> )	1	208	11.3	38,400	7.6	49		50			
12 lbs.	50A Circuit breaker		220	12.6	43,000	7.6	55		<sup>4</sup> 60			
			230	13.5	47,000	7.6	55		<sup>₄</sup> 60			
_			240	15.0	51,200	7.6	55		460			
	ECB27-15 ( <b>17D63</b> )	1	440	12.6	43,000	4.0	25		30			
	(3) 25Å Fuses		460	13.5	47,000	4.0	26		30			
			480	15.0	51,200	4.0	27		30			
20 kW	ECB27-20CB ( <b>17D60</b> )	2	208	15.0	51,200	7.6	36	26	<sup>4</sup> 40	4 30	62	70
19 lbs.	(2) 35A Circuit breaker		220	16.8	57,300	7.6	40	30	<sup>4</sup> 40	4 30	70	70
			230	18.4	62,700	7.6	40	30	<sup>4</sup> 40	4 30	70	70
			240	20.0	68,200	7.6	40	30	<sup>4</sup> 40	4 30	70	70
-	ECB27-20 ( <b>17D64</b> )	1	440	16.8	57,300	4.0	33		35			
	(3) 35A Fuses		460	18.4	62.700	4.0	34		35			
			480	20.0	68,200	4.0	35		40			
-												
			<u> </u>									
25 kW	ECB27-25CB ( <b>17D61</b> )	2	208	18.8	64.100	7.6	42	33	<sup>4</sup> 50	4 35	75	80
19 lbs.	(2) 45A Circuit breaker		220	21.0	71.700	7.6	47	38	4 50	440	85	90
			230	23.0	78,300	7.6	47	38	4 50	440	85	90
			240	25.0	85,300	7.6	47	38	4 50	<sup>4</sup> 40	85	90
-	ECB27-25 ( <b>17D65</b> )	1	440	23.0	71,700	4.0	39		40			
	(3) 40A Fuses		440	23.0	78,300	4.0	41		40			
			480	25.0	85,300	4.0	41		45			
-			400	25.0	65,500	4.0	42		43			

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

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

<sup>2</sup> Amps shown are for blower motor only.

<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.

<sup>4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 25.

<sup>5</sup> HACR type circuit breaker or fuse.

<sup>6</sup> Blower motor is rated at 460V.

# **ELECTRIC HEAT DATA - BCE7E-060**

## THREE PHASE

	Electic Heat	No. of		Inpu	it	<sup>2</sup> Blower Motor		imum cuit acity	Overc	imum urrent ection	-	e Point Source
	Model Number	Stages	Volts	kW	<sup>1</sup> Btuh	Full Load Amps	Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>3</sup> Minimum Circuit Ampacity	<sup>5</sup> Maximum Overcurrent Protection
8 kW	ECB27-8 ( <b>17D57</b> )	1	208	6.0	20,500	7.6	30		30			
5 lbs.	Terminal block		220	6.7	22,900	7.6	33		35			
			230	7.3	25,100	7.6	33		35			
			240	8.0	27,300	7.6	33		35			
10 kW	ECB27-10 ( <b>17D58</b> )	1	208	7.5	25,600	7.6	36		40			
6 lbs.	Terminal Block		220	8.4	28,700	7.6	40		40			
			230	9.2	31,400	7.6	40		40			
			240	10.0	34,100	7.6	40		40			
	ECB27-10 ( <b>17D62</b> )	1	440	8.4	28,700	4.0	18		20			
	(3) 20A Fuses		460	9.2	31,400	4.0	19		20			
			480	10.0	34,100	4.0	20		25			
15 kW	ECB27-15CB ( <b>17D59</b> )	1	208	11.3	38,400	7.6	49		50			
12 lbs.	50A Circuit breaker		220	12.6	43,000	7.6	55		<sup>4</sup> 60			
			230	13.5	47,000	7.6	55		<sup>4</sup> 60			
_			240	15.0	51,200	7.6	55		460			
	ECB27-15 ( <b>17D63</b> )	1	440	12.6	43,000	4.0	25		30			
	(3) 25Å Fuses		460	13.5	47,000	4.0	26		30			
			480	15.0	51,200	4.0	27		30			
20 kW	ECB27-20CB ( <b>17D60</b> )	2	208	15.0	51,200	7.6	36	26	440	<sup>4</sup> 30	62	70
19 lbs.	(2) 35A Circuit breaker		220	16.8	57,300	7.6	40	30	<sup>4</sup> 40	<sup>4</sup> 30	70	70
			230	18.4	62,700	7.6	40	30	<sup>4</sup> 40	4 30	70	70
			240	20.0	68,200	7.6	40	30	<sup>4</sup> 40	4 30	70	70
-	ECB27-20 ( <b>17D64</b> )	1	440	16.8	57,300	4.0	33		35			
	(3) 35A Fuses		460	18.4	62,700	4.0	34		35			
			480	20.0	68,200	4.0	35		40			
-			100	20.0	00,200							
25 kW	ECB27-25CB ( <b>17D61</b> )	2	208	18.8	64.100	7.6	42	33	45	4 35	75	80
19 lbs.	(2) 45A Circuit breaker	_	220	21.0	71,700	7.6	47	38	4 50	<sup>4</sup> 40	85	90
			230	23.0	78,300	7.6	47	38	<sup>4</sup> 50	440	85	90
			240	25.0	85.300	7.6	47	38	<sup>4</sup> 50	<sup>4</sup> 40	85	90
-	ECB27-25 ( <b>17D65</b> )	1	440	25.0	71,700	4.0	47 39		40			90
	(3) 40A Fuses		440	21.0	78,300	4.0	 		40			
									-			
-			480	25.0	85,300	4.0	42		45			
			$\mid \mid$									

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

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

<sup>2</sup> Amps shown are for blower motor only.

<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.

<sup>4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Table on Page 25.

<sup>5</sup> HACR type circuit breaker or fuse.

<sup>6</sup> Blower motor is rated at 460V.



Model No.		Α	В	С	D	E	F	G	н
	in.								
BCE7E-036	mm	1295	540	575	502	533	508	670	625
BCE7E-048	mm	1486	540	625	502	584	508	708	778
	in.	62-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	34-5/8
BCE7E-060	mm	1588	540	625	502	584	508	708	879

### 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.		Α	В	С	D	Е	F	G	н
	in.								
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** 



## **DIMENSIONS - INCHES (MM)**





UPFLOW

SIDE RETURN UNIT STAND (Upflow Only)

В

-



## **DIMENSIONS - INCHES (MM)**

### DOWNFLOW COMBUSTIBLE FLOORING BASE



Catalog No. - 44K15



## ACCESSORIES

Description	Where Used	Cat. Number
Circuit Breaker Cover Kit	All Models	82W01
Downflow Combustible Flooring Base	All Models	44K15
Horizontal Support Frame Kit	All Models	56J18
Side Return Unit Stand (Upflow)	All Models	45K32
Single-Point Power Source Control Box	All Models	21H39
Wall Hanging Bracket Kit (Upflow)	All Models	45K30
Remote Outdoor Sensor	All Models	X2658

## **ELECTRIC HEAT**

Size	Model	C/B Size *	Where Used	Cat #	
Electric Heat Kits - Single Phase					
5 kW	ECB27-5CB-P	35A	18, 24, 30, 36, 42, 48, 60	17D47	
9 kW	ECB27-9CB-P	60A	30, 36, 42, 48, 60	17D52	
12 kW	ECB27-12.5CB-P	30A + 45A	30, 36, 42, 48, 60	17D53	
15 kW	ECB27-15CB-P	35A + 60A	30, 36, 42, 48, 60	17D54	
20 kW	ECB27-20CB-P	60A + 60A	36, 42, 48, 60	17D55	
25 kW	ECB27-25CB-P	60A + 45A + 45A	42, 48, 60	17D56	
Electric Heat Kits - Three Phase					
8KW	ECB27-8-Y	Terminal Block	30, 36, 42, 48, 60	17D57	
10KW	ECB27-10-Y	Terminal Block	30, 36, 42, 48, 60	17D58	
	ECB27-10-G	(3) 20A fuses	36, 48, 60 - 460V only	17D62	
15KW	ECB27-15CB-Y	50A	30, 36, 42, 48, 60	17D59	
	ECB27-15-G	(3) 25A fuses	36, 48, 60 - 460V only	17D63	
	ECB27-20CB-Y	35A + 35A	36, 42, 48, 60	17D60	
20KW	ECB27-20-G	(3) 35A fuses	48, 60 - 460V only	17D64	
25KW	ECB27-25CB-Y	45A + 45A	42, 48, 60	17D61	
	ECB27-25-G	(3) 40A fuses	48, 60 - 460V only	17D65	

Replacement Circuit Breakers					
Voltage	Description	Cat #			
208/240V - 3 Phase	30A, 3 pole	64W47			
	35A, 3 pole	41K14			
	40A, 3 pole	41K16			
	45A, 3 pole	18M86			
	50A, 3 pole	41K15			
	60A, 3 pole	41K17			



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