

BCE5E

PRODUCT SPECIFICATIONS

COMPACT AIR HANDLER

FORM NO. BCE5E-100 (03/2020)



APPLICATION

- 2 - 5 ton systems
- Sequenced for demand management
- External access to heater circuit breakers

INSTALLATION

- One piece design
- Smaller profile for tight application areas
- Multiposition - Factory ready for upflow, downflow, and horizontal left/right applications
- Approved for installation in manufactured housing and mobile homes

CABINET

- Foil faced insulation for enhanced indoor air quality
- Double hemmed technology for increased structural rigidity
- Improved gasketing on doors to reduce air leakage
- Filter rack with thumb screws for easy access and removal
- Polymer plugs on drain locations for easy installation
- Baked polyester paint finished over galvanized steel for maximum durability
- High-strength, UV and heat resistant polymer drain pan designed for corrosion resistance
- Antimicrobial polymer drain pan built to resist mold and mildew growth
- 2% or less air leakage

COILS

- Omniguard™ total corrosion protection technology designed coil
- Enhanced tube-and-fin coil design featuring MHT™ Technology
- Lanced fins for maximum heat transfer
- Factory leak tested and pre-charged with nitrogen holding charge

COMPONENTS

- Efficient Constant Torque blower motors
- Standard transformer and blower relay
- Field installed 5 - 20kW electric heat kits with easy plug connections
- Blower time delay for increased efficiency
- Sleeves on distributor tubing to protect tubes

WARRANTY

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

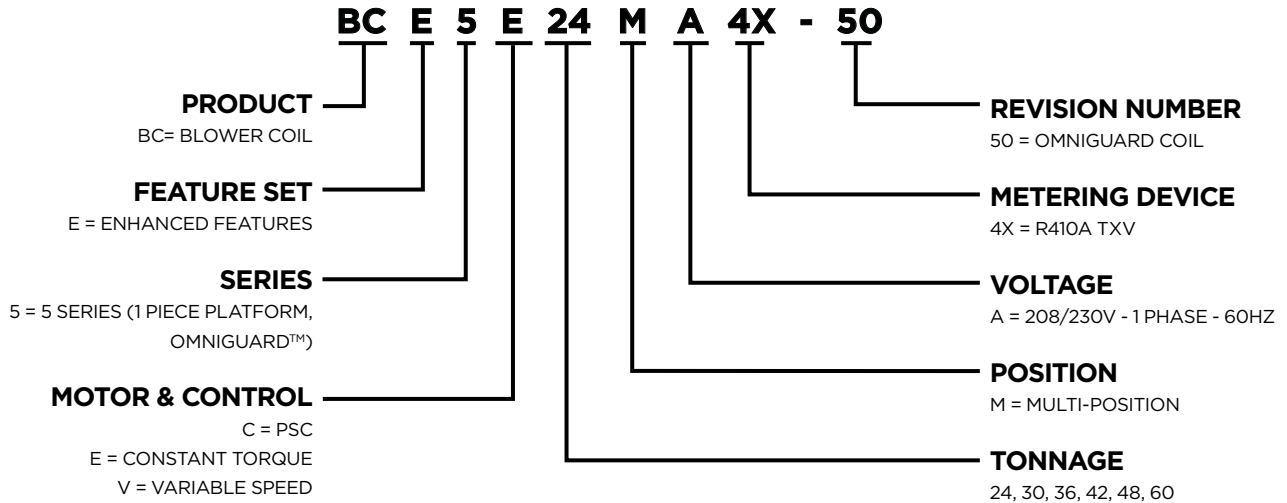
*Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults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



NOTE:

For the latest AHRI system matches, please visit www.alliedratings.com or www.AHRIdirectory.org

MODEL NUMBER GUIDE



PHYSICAL

Model	Volts/Hz/Phase	Max. Elec. Heat (kW)	Transformer Size & Type	Filter Size (in.)	Refrigerant Connection		Installed TXV Size	Weight (lbs.)
					Suction (in.)	Liquid (in.)		
BCE5E24	208-230/60/1	10	40 VA Class 2	15 x 20	3/4	3/8	H4TXV01	127
BCE5E30	208-230/60/1	15	40 VA Class 2	15 x 20	3/4	3/8	H4TXV01	133
BCE5E36	208-230/60/1	15	40 VA Class 2	18 x 20	7/8	3/8	H4TXV02	163
BCE5E42	208-230/60/1	15	40 VA Class 2	18 x 20	7/8	3/8	H4TXV02	168
BCE5E48	208-230/60/1	20	40 VA Class 2	18 x 20	7/8	3/8	H4TXV02	186
BCE5E60	208-230/60/1	20	40 VA Class 2	18 x 20	7/8	3/8	H4TXV03	186

INSTALLATION CLEARANCES WITH ELECTRIC HEAT

Cabinet	0 in. (0 mm)
To Plenum	0 in. (0mm)
To Outlet Duct within 3 ft. (914mm)	0 in. (0 mm)
Floor	0 in. (0 mm) 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 in. (610 mm) minimum.

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

ACCESSORIES

Description	Where Used	Kit Number
Downflow Kit	24, 30	Y9658
	36, 42, 48, 60	Y9659
Downflow Combustible Floor Base Kit	24, 30	12W95
	36, 42, 48, 60	12W96
Horizontal Support Frame kit	All Models	56J18
Side Return Unit Stand (upflow only)	All Models	45K32
Single Point Power Kit	All Models	21H39
Wall Hanging Bracket Kit (upflow only)	All Models	45K30

ELECTRIC HEAT

Electric Heat Kits with Terminal Block				
Size	Model	C/B Size *	Where Used	Cat #
5 kW	ECBA25-5	NA	24, 30, 36, 42, 48, 60	16Y36
7.5 kW	ECBA25-7.5	NA	24, 30, 36, 42, 48, 60	16Y37
10 kW	ECBA25-10	NA	24, 30, 36, 42, 48, 60	16Y38
Electric Heat Kits with Circuit Breaker				
5 kW	ECBA25-5CB	30A	24, 30, 36, 42, 48, 60	16Y39
7.5 kW	ECBA25-7.5CB	45A	24, 30, 36, 42, 48, 60	16Y41
10 kW	ECBA25-10CB	60A	24, 30, 36, 42, 48, 60	16Y42
12.5 kW	ECBA25-12.5CB	50A + 25A	30, 36, 42, 48, 60	16Y43
15 kW	ECBA25-15CB	60A + 25A	30, 36, 42, 48, 60	16Y44
20 kW	ECBA25-20CB	60A + 50A	48, 60	16Y46
Replacement Circuit Breakers (2 pole)				
Volts	Size		Cat #	
208/240V- 1 phase	25A		41K13	
	30A		17K70	
	35A		72K07	
	40A		49K14	
	45A		17K71	
	50A		41K12	
	60A		17K72	

* Circuit breaker must match rated "Max C/B Size"; replace breaker as necessary.

ELECTRICAL

Model	Heating Capacity (240V)			Blower Amps	Min. Circuit Ampacity				Max. Circuit Breaker Size				Single Point Power Supply					
	Nominal Heater Size kW	kW	Btuh		208V		240V		208V		240V		208V		240V			
					1	2	1	2	1	2	1	2	Amps	Fuse	Amps	Fuse		
BCE5E24	0	0	0	4.1	5.1		5.1		15		15							
	5	4.8	16400		27		30		30		30							
	7.5	7.5	25600		39		44		40		45							
	10	9.6	32700		48		55		50		60							
BCE5E30	0	0	0	4.1	5.1		5.1		15		15							
	5	4.8	16400		27		30		30		30							
	7.5	7.5	25600		39		44		40		45							
	10	9.6	32700		48		55		50		60							
	12.5	12.5	42600		43	19	48	22	45	20	50	25	62	70	70	70	70	
	15	14.4	49100		48	22	55	25	50	25	60	25	70	70	80	80	80	
BCE5E36	0	0	0	4.1	5.1		5.1		15		15							
	5	4.8	16400		27		30		30		30							
	7.5	7.5	25600		39		44		40		45							
	10	9.6	32700		48		55		50		60							
	12.5	12.5	42600		43	19	48	22	45	20	50	25	62	70	70	70	70	
	15	14.4	49100		48	22	55	25	50	25	60	25	70	70	80	80	80	
BCE5E42	0	0	0	6.0	7.5		7.5		15		15							
	5	4.8	16400		29		33		30		35							
	7.5	7.5	25600		41		47		45		50							
	10	9.6	32700		51		58		60		60							
	12.5	12.5	42600		45	19	51	22	45	20	60	25	64	70	73	80	80	
	15	14.4	49100		51	22	58	25	60	25	60	25	73	80	83	90	90	
BCE5E48	0	0	0	7.6	9.5		9.5		15		15							
	5	4.8	16400		31		35		35		35							
	7.5	7.5	25600		43		49		45		50							
	10	9.6	32700		53		60		60		60							
	12.5	12.5	42600		47	19	53	22	50	20	60	25	66	70	75	80	80	
	15	14.4	49100		53	22	60	25	60	25	60	25	75	80	85	90	90	
	20	19.2	65500		53	43	60	50	60	45	60	50	96	100	110	110	110	
BCE5E60	0	0	0	7.6	9.5		9.5		15		15							
	5	4.8	16400		31		35		35		35							
	7.5	7.5	25600		43		49		45		50							
	10	9.6	32700		53		60		60		60							
	12.5	12.5	42600		47	19	53	22	50	20	60	25	66	70	75	80	80	
	15	14.4	49100		53	22	60	25	60	25	60	25	75	80	85	90	90	
	20	19.2	65500		53	43	60	50	60	45	60	50	96	100	110	110	110	

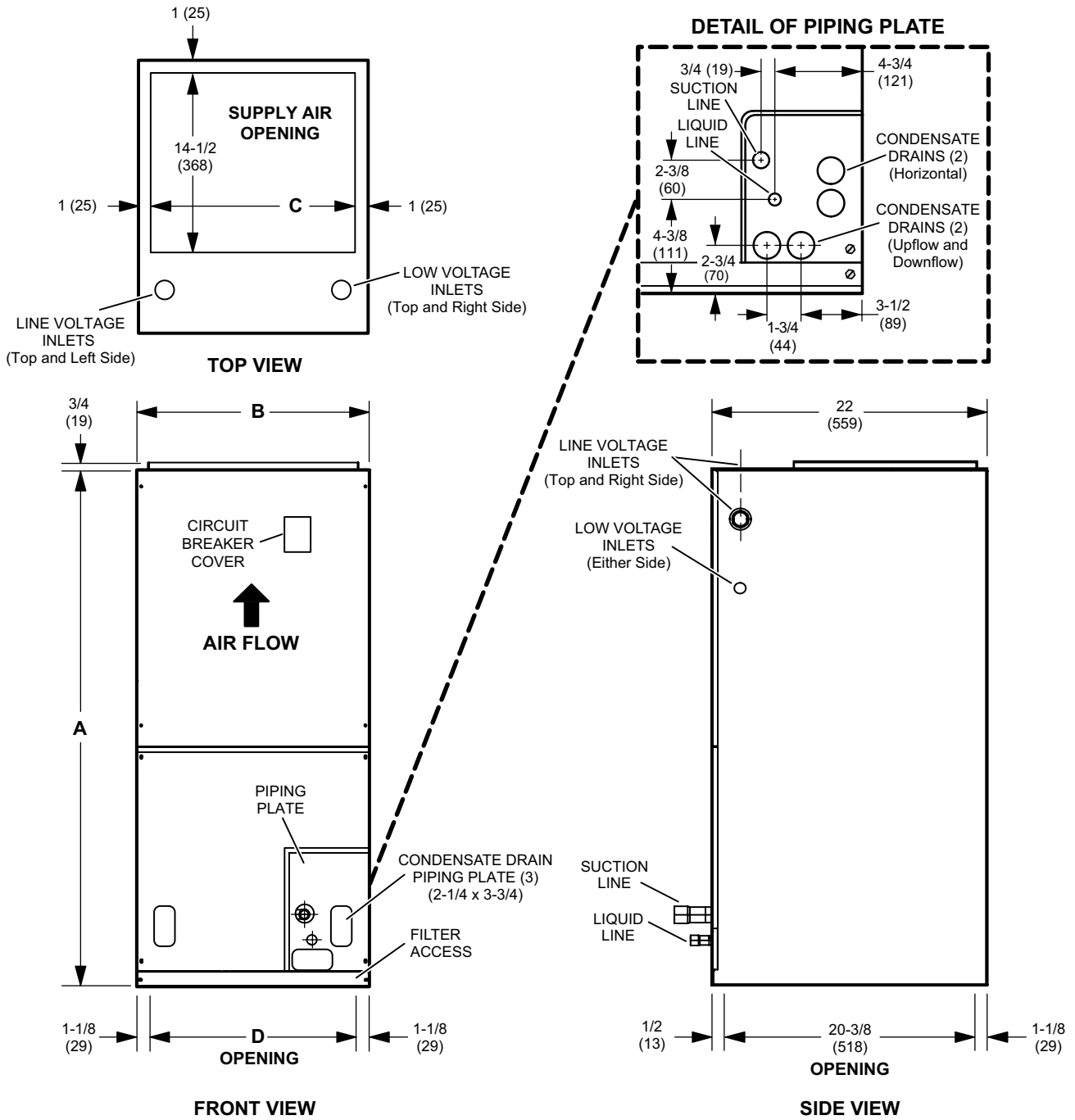
1. For 208 volt use .751 correction factor for kW and Btuh
 2. 12.5kW, 15 and 20kW (2 stage models) require 2 supply circuits
 3. Circuit #1 includes blower motor amps except 20kW models

BLOWER

Model	Motor Size (hp)	Blower Size (in.)	Speed Tap	Application	CFM @ ESP - in. W.C.				
					0.1	0.2	0.3	0.4	0.5
BCE5E24	1/2	10 x 8	1	Fan Only	590	575	530	480	430
			2	Matched with 1.5 ton condensing unit	750	650	610	550	480
			3	Nominal 2 ton match without electric heat	950	825	785	740	690
			4	Nominal 2 ton match with electric heat	1040	1020	985	940	920
			5	High static application	1160	1140	1120	1080	1050
BCE5E30	1/2	10 x 8	1	Fan Only	700	665	625	565	490
			2	Matched with 2 ton condensing unit	860	810	770	715	665
			3	Nominal 2.5 ton match without electric heat	1040	1010	980	940	890
			4	Nominal 2.5 ton match with electric heat	1140	1100	1045	1015	980
			5	High static application	1390	1375	1340	1285	1245
BCE5E36	1/2	10 x 8	1	Fan Only	850	800	750	665	600
			2	Matched with 2.5 ton condensing unit	1080	950	910	850	775
			3	Nominal 3 ton match without electric heat	1270	1230	1170	1120	1060
			4	Nominal 3 ton match with electric heat	1440	1400	1330	1280	1240
			5	High static application	1540	1475	1430	1380	1300
BCE5E42	3/4	12 x 10	1	Fan Only	990	915	860	810	725
			2	Matched with 3 ton condensing unit	1190	1150	1100	1060	1020
			3	Nominal 3.5 ton match without electric heat	1390	1350	1315	1280	1230
			4	Nominal 3.5 ton match with electric heat	1665	1625	1585	1550	1510
			5	High static application	1750	1710	1675	1640	1600
BCE5E48	1	12 x 10	1	Fan Only	1250	1210	1185	1130	1110
			2	Matched with 3.5 ton condensing unit	1500	1465	1435	1400	1360
			3	Nominal 4 ton match without electric heat	1715	1670	1635	1615	1575
			4	Nominal 4 ton match with electric heat	1770	1735	1700	1670	1650
			5	High static application	1895	1860	1835	1795	1760
BCE5E60	1	12 x 10	1	Fan Only	1100	1050	1000	925	830
			2	Matched with 4 ton condensing unit	1625	1595	1565	1520	1490
			3	Nominal 5 ton match without electric heat	1815	1785	1760	1730	1685
			4	Nominal 5 ton match with electric heat	1905	1870	1835	1810	1765
			5	High static application	1980	1955	1925	1895	1860

All data given while air handler is operating with a wet coil and without air filter installed.
 Speed tap 1 to be used for continuous fan operation.
 Speed tap 2 to be used for cooling speed of 1/2 ton smaller outdoor unit match. Speed tap 3 to be used for cooling speed of nominal tonnage match.
 Speed tap 4 to be used for heating speed for units with electric heat. This is the minimum speed for heating. Speed tap 5 to be used for high static applications.

DIMENSIONS (IN.)



Dimension	24		30		36-42		48		60	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
A	45.5	1156	47	1194	53.63	1362	55	1397	59.75	1518
B	18.5	470	18.5	470	21.5	546	21.5	546	21.5	546
C	16.5	419	16.5	419	19.5	495	19.5	495	19.5	495
D	16.25	413	16.25	413	19.25	489	19.25	489	19.25	489

All specifications and illustrations subject to change without notice and without incurring obligations.



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