

BCS3E

PRODUCT SPECIFICATIONS

ENHANCED AIR HANDLER

FORM NO. BCS3E-100 (04/2014)



APPLICATION

- 1 1/2 - 5 ton systems
- Upflow and horizontal
- Sequenced for demand management
- External access to heater circuit breakers

INSTALLATION

- 1 Piece design for easier installation
- Multiposition - Upflow/Horizontal Left/Right
- Unit approved for installation in manufactured housing and mobile homes

CABINET

- Foil faced insulation
- Painted, heavy-gauge galvanized cabinet
- High-strength, UV- and heat-resistant plastic drain pan for corrosion resistance
- 2% or less air leakage

COMPONENTS

- Efficient Constant Torque blower motors
- Standard transformer and blower relay
- Field-installed 2.5-20 kW electric heat kits with easy plug connections
- Built-in indoor time delay for increased efficiency

ACCESSORIES

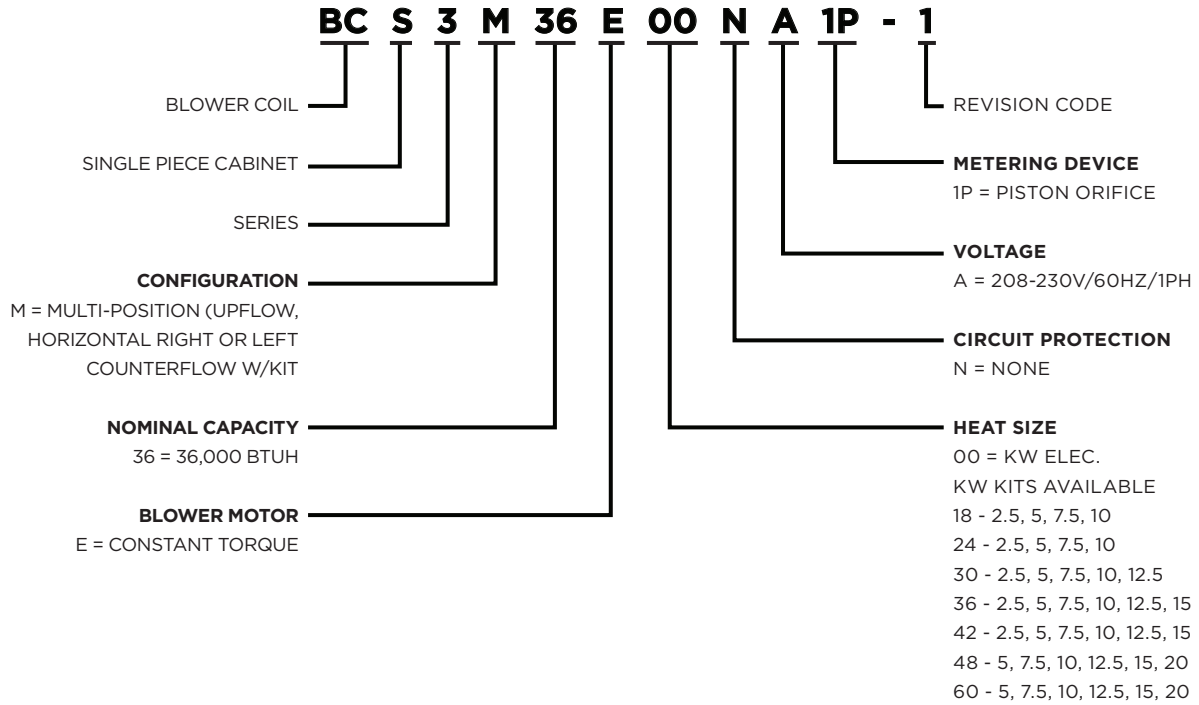
- Single point power kit

WARRANTY

10-year limited parts warranty available when applied with a system. See limited warranty document for details.



MODEL NUMBER GUIDE

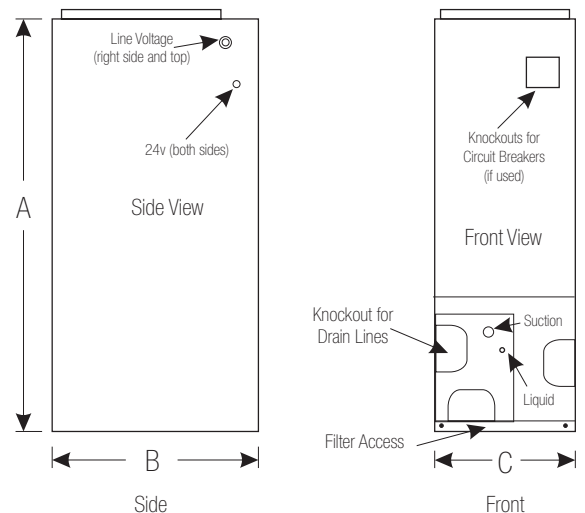


PHYSICAL

Model	Volts/Hz/Phase	Max. Elec. Heat Available (kW)	Tranformer Size & Type	Filter Size (in.)	Refrigerant Connection (IDS)		Weight (lbs.)
					Suction (in.)	Liquid (in.)	
BCS3M24E	208-230/60/1	10kW	40 VA Class 2	15 X 20	3/4	3/8	122
BCS3M30E	208-230/60/1	12.5kW	40 VA Class 2	15 X 20	3/4	3/8	125
BCS3M36E	208-230/60/1	15kW	40 VA Class 2	18 X 20	7/8	3/8	160
BCS3M42E	208-230/60/1	15kW	40 VA Class 2	18 X 24	7/8	3/8	162
BCS3M48E	208-230/60/1	20kW	40 VA Class 2	18 X 24	7/8	3/8	185
BCS3M60E	208-230/60/1	20kW	40 VA Class 2	18 X 24	7/8	3/8	185

DIMENSIONS (IN.)

Air Handler Size	A (in.)	B (in.)	C (in.)	Supply Duct Opening		Return Duct Opening	
				Depth (in.)	Width (in.)	Depth (in.)	Width (in.)
BCS3M24E	40 1/2	22	18 1/2	17	16 1/2	20 3/4	16
BCS3M30E	43	22	18 1/2	17	16 1/2	20 3/4	16
BCS3M36E	48	22	21 7/8	17	19 7/8	20 3/4	19 3/8
BCS3M42E	48	26	21 7/8	21	19 7/8	24 3/4	19 3/8
BCS3M48E	52 1/2	26	21 7/8	21	19 7/8	24 3/4	19 3/8
BCS3M60E	52 1/2	26	21 7/8	21	19 7/8	24 3/4	19 3/8



ELECTRICAL

Blower Size	Elec. Heating Cap.		Blower Amps	Total Ampacity per Circuit				Total Unit Ampacity		Circuit Breaker Size				Single Point Power Circuit Breaker Size	
	kW	Btuh		208v		240v		208v	240v	208v		240v		208v	240v
	240v	240v		1	2	1	2			1	2	1	2		
BCS3M24E	0	0	1.9	2.4	-	2.4	-	2.4	2.4	15	-	15	-	-	-
	2.5	8600	1.9	13.7	-	15.4	-	13.7	15.4	15	-	20	-	-	-
	5	17100	1.9	24.9	-	28.4	-	24.9	28.4	25	-	30	-	-	-
	7.5	25600	1.9	36.2	-	41.4	-	36.2	41.4	40	-	45	-	-	-
	10	34200	1.9	47.5	-	54.5	-	47.5	54.5	50	-	60	-	-	-
BCS3M30E	0	0	3.1	3.9	-	3.9	-	3.9	3.9	15	-	15	-	-	-
	2.5	8600	3.1	15.2	-	16.9	-	15.2	16.9	20	-	20	-	-	-
	5	17100	3.1	26.4	-	29.9	-	26.4	29.9	30	-	30	-	-	-
	7.5	25600	3.1	37.7	-	42.9	-	37.7	42.9	40	-	45	-	-	-
	10	34200	3.1	49.0	-	56.0	-	49.0	56.0	50	-	60	-	-	-
	12.5	42700	3.1	41.3	19.0	47.1	21.9	60.3	69.0	45	20	50	25	70	70
BCS3M36E	0	0	3.4	4.3	-	4.3	-	4.3	4.3	15	-	15	-	-	-
	2.5	8600	3.4	15.5	-	17.3	-	15.5	17.3	20	-	20	-	-	-
	5	17100	3.4	26.8	-	30.3	-	26.8	30.3	30	-	35	-	-	-
	7.5	25600	3.4	38.1	-	43.3	-	38.1	43.3	40	-	45	-	-	-
	10	34200	3.4	49.4	-	56.3	-	49.4	56.3	50	-	60	-	-	-
	12.5	42700	3.4	41.7	19.0	47.5	21.9	60.7	69.4	45	20	50	25	70	70
	15	51200	3.4	49.4	22.6	56.3	26.0	72.0	82.3	50	25	60	30	80	90
BCS3M42E	0	0	3.3	4.1	-	4.1	-	4.1	4.1	15	-	15	-	-	-
	2.5	8600	3.3	15.4	-	17.1	-	15.4	17.1	20	-	20	-	-	-
	5	17100	3.3	26.7	-	30.2	-	26.7	30.2	30	-	35	-	-	-
	7.5	25600	3.3	38.0	-	43.2	-	38.0	43.2	40	-	45	-	-	-
	10	34200	3.3	49.3	-	56.2	-	49.3	56.2	50	-	60	-	-	-
	12.5	42700	3.3	41.6	19.0	47.4	21.9	60.6	69.3	45	20	50	25	70	70
	15	51200	3.3	49.3	22.6	56.2	26.0	71.9	82.2	50	25	60	30	80	90
BCS3M48E	0	0	4.6	5.8	-	5.8	-	5.8	5.8	15	-	15	-	-	-
	5	17100	4.6	28.3	-	31.8	-	28.3	31.8	30	-	35	-	-	-
	7.5	25600	4.6	39.6	-	44.8	-	39.6	44.8	40	-	45	-	-	-
	10	34200	4.6	50.9	-	57.8	-	50.9	57.8	60	-	60	-	-	-
	12.5	42700	4.6	43.2	19.0	49.0	21.9	62.2	70.9	45	20	50	25	70	80
	15	51200	4.6	50.9	22.6	57.8	26.0	73.5	83.8	60	25	60	30	80	90
	20	68300	4.6	49.7	46.4	57.3	52.6	96.1	109.9	50	50	60	60	100	110
BCS3M60E	0	0	5.2	6.5	-	6.5	-	6.5	6.5	15	-	15	-	-	-
	5	17100	5.2	29.1	-	32.5	-	29.1	32.5	30	-	35	-	-	-
	7.5	25600	5.2	40.4	-	45.6	-	40.4	45.6	45	-	50	-	-	-
	10	34200	5.2	51.6	-	58.6	-	51.6	58.6	60	-	60	-	-	-
	12.5	42700	5.2	44.0	19.0	49.7	21.9	63.0	71.6	45	20	50	25	70	80
	15	51200	5.2	51.6	22.6	58.6	26.0	74.2	84.6	60	25	60	30	80	90
	20	68300	5.2	49.7	47.1	57.3	53.4	96.8	110.7	50	50	60	60	100	120

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

BLOWER

Model	Motor Size (hp)	Blower Size (in.)	Speed Tap	CFM @ ESP - in. W.C.				
				0.1	0.2	0.3	0.4	0.5
BCS3M24E	1/2	9 x 6	1	610	550	500	440	380
			2	690	650	590	550	490
			3	900	860	820	790	740
			4	970	920	890	850	820
			5	1180	1140	1110	1080	1040
BCS3M30E	1/2	10 x 8	1	830	640	380	280	100
			2	920	840	810	750	690
			3	1120	1070	1030	990	960
			4	1160	1110	1080	1030	1000
			5	1250	1210	1190	1150	1110
BCS3M36E	1/2	10 x 8	1	900	820	770	740	670
			2	1120	1070	1010	950	910
			3	1260	1220	1180	1120	1070
			4	1380	1350	1300	1260	1190
			5	1640	1590	1520	1450	1350
BCS3M42E	3/4	11 x 8	1	1220	1040	810	610	410
			2	1410	1260	1100	920	860
			3	1570	1440	1360	1300	1260
			4	1640	1520	1480	1440	1400
			5	1690	1640	1590	1550	1510
BCS3M48E	3/4	11.5 x 9	1	1440	1270	1080	860	790
			2	1650	1500	1410	1360	1310
			3	1750	1670	1610	1570	1520
			4	1810	1740	1700	1650	1620
			5	1940	1870	1820	1780	1740
BCS3M60E	3/4	12 x 9	1	1520	1380	1220	1070	1000
			2	1870	1830	1780	1740	1690
			3	1980	1940	1880	1840	1800
			4	1970	1920	1880	1830	1790
			5	2080	2030	1970	1930	1890

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.

ACCESSORIES

DESCRIPTION	WHERE USED	KIT NUMBER
Single Point Power Kit	ALL BCS3E	21H39

ELECTRIC HEAT KITS

DESCRIPTION	WHERE USED	KIT NUMBER
ECB25-2.5-P 2.5 kW Electric Heater with Terminal Block	BCS3*24, 30, 36, 42	89W42
ECB25-5-P 5 kW Electric Heater with Terminal Block	BCS3*24, 30, 36, 42, 48, 60	89W43
ECB25-5CB-P 5 kW Electric Heater with Circuit Breaker	BCS3*24, 30, 36, 42, 48, 60	89W44
ECB25-7-P 7.5 kW Electric Heater with Terminal Block	BCS3*24, 30, 36, 42, 48, 60	89W45
ECB25-7CB-P 7.5 kW Electric Heater with Circuit Breaker	BCS3*24, 30, 36, 42, 48, 60	89W46
ECB25-10-P 10 kW Electric Heater with Terminal Block	BCS3*24, 30, 36, 42, 48, 60	89W47
ECB25-10CB-P 10 kW Electric Heater with Circuit Breaker	BCS3*24, 30, 36, 42, 48, 60	89W48
ECB25-12.5CB-P 12.5 kW Electric Heater with Circuit Breaker	BCS3*30, 36, 42, 48, 60	89W49
ECB25-15CB-P Electric Heater/15 kW	BCS3*36, 42, 48, 60	10T14
ECB25-20CB-P Electric Heater/20 kW	BCS3*48, 60	10T35



1-800-448-5872

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