

Air Handler

BCS2

Form No. DBCS2 (07/2010)

APPLICATION

- 1 1/2 - 5 ton sizes
- Upflow and horizontal (counterflow capable with kit)
- Sequenced for demand management
- External access to heater circuit breakers

INSTALLATION

- 1 Piece design for easier installation
- Multiposition - Upflow/Horizontal Left/Right

CABINET

- Foil faced insulation
- Painted, heavy-gauge galvanized cabinet
- Filter rack built into every air handler
- High-strength, UV- and heat-resistant plastic drain pan for corrosion resistance
- Microban® antimicrobial built in to drain pan to resist mold and mildew growth and fouling of the drain
- 2% or less air leakage

COMPONENTS

- Efficient PSC blower motors
- Standard transformer and blower relay
- Field-installed 5-20 kW electric heat kits with easy plug connections
- Built-in indoor time delay for increased efficiency
- Sleeves on distributor tubing to protect tubing

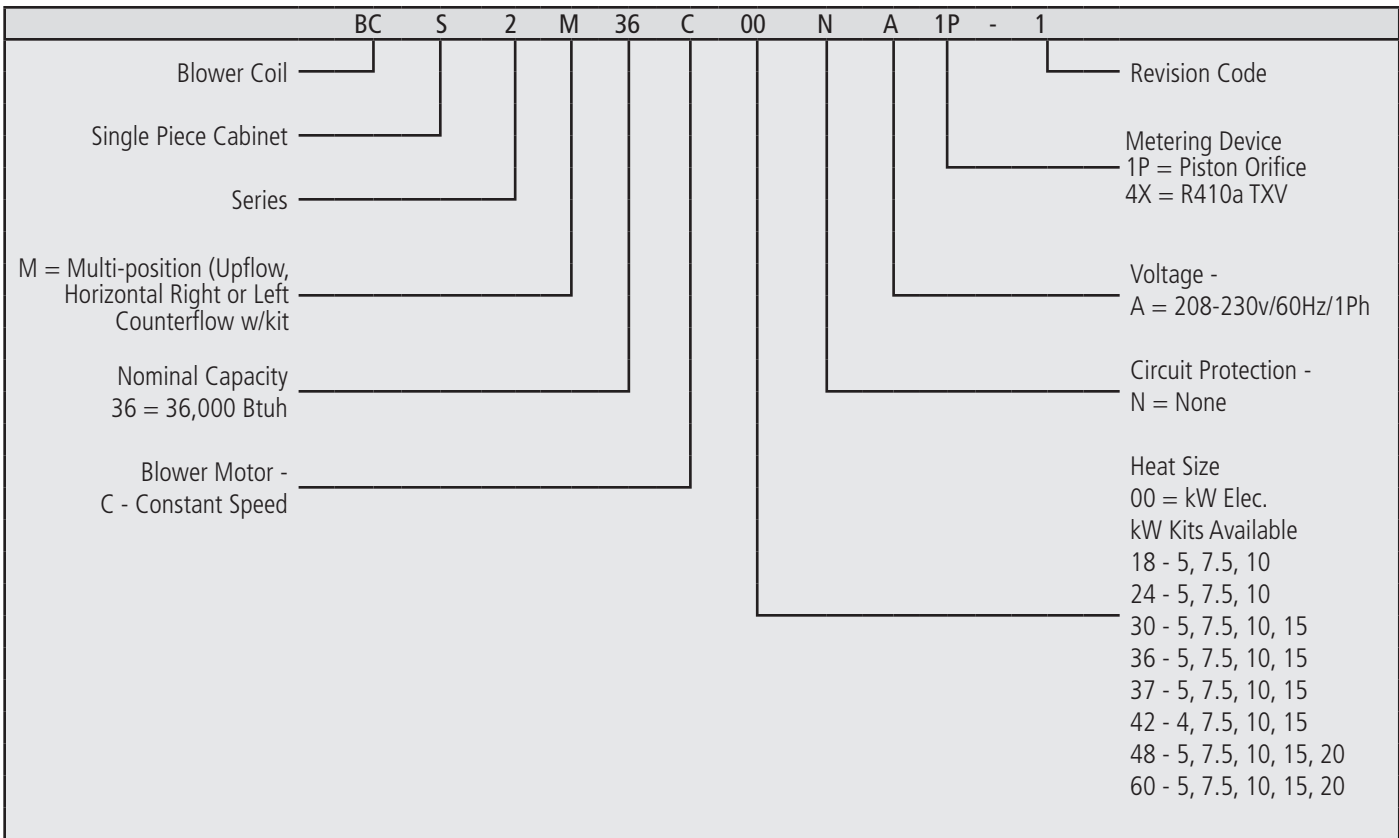
ACCESSORIES

- Counterflow kit
- Single point power kit



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

Model Number Guide

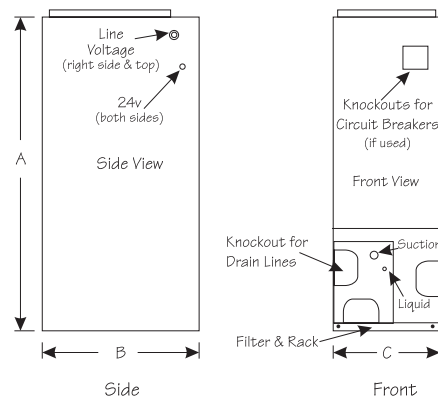


Physical

Model	Volts/Hz/Phase	Max. Elec. Heat Available (kW)	Transformer Size & Type	Filter Size (in.)	Refrigerant Connection (IDS)		Florator Piston Size	Weight (lbs.)
					Suction (in.)	Liquid (in.)		
BCS2M18	208-230/60/1	10	40 VA, Class 2	16 X 20	3/4	3/8	.051	129
BCS2M24	208-230/60/1	10	40 VA, Class 2	16 X 20	3/4	3/8	.057	131
BCS2M30	208-230/60/1	15	40 VA, Class 2	18 X 20	7/8	3/8	.065	148
BCS2M36	208-230/60/1	15	40 VA, Class 2	18 X 20	7/8	3/8	.070	148
BCS2M37	208-230/60/1	15	40 VA, Class 2	18 X 25	7/8	3/8	.070	172
BCS2M42	208-230/60/1	15	40 VA, Class 2	18 X 25	7/8	3/8	.076	172
BCS2M48	208-230/60/1	20	40 VA, Class 2	18 X 25	7/8	3/8	.082	177
BCS2M60	208-230/60/1	20	40 VA, Class 2	18 X 25	7/8	3/8	.090	190

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.)
BCS2M18-24	46 3/4	22	18 1/2	17	16 1/2	20 1/4	16
BCS2M30-36	51	22	21 1/4	17	19 1/4	20 1/4	18 3/4
BCS2M37-48	54	26	21 1/4	21	19 1/4	24 1/4	18 3/4
BCS2M60	60	26	21 1/4	21	19 1/4	24 1/4	18 3/4



Electrical

Blower Size	Elec. Heating Cap.		Blower Amps		(2) (3) Total Amps per Circuit						Total Unit Amps		Circuit Breaker	
	kW	Btuh			208v			240v					Amps per Stage	
	(1) 240v	(1) 240v	208v	240v	1	2	3	1	2	3	208	240	1	2
18 & 24 (no heat)	0	0	1.5	1.4	-	-	-	-	-	-	1.5	1.4	15	-
18 & 24	5	17,100	1.5	1.4	19.5	-	-	22.2	-	-	19.5	22.2	30	-
18 & 24	7.5	25,600	1.5	1.4	28.6	-	-	32.7	-	-	28.6	32.7	45	-
18 & 24	10	34,100	1.5	1.5	37.6	-	-	43.1	-	-	37.6	43.1	60	-
30 (no heat)	0	0	1.6	1.5	-	-	-	-	-	-	1.6	1.5	15	-
30	5	17,100	1.6	1.5	19.6	-	-	22.3	-	-	19.6	22.3	30	-
30	7.5	25,600	1.6	1.5	28.7	-	-	32.6	-	-	28.7	32.8	45	-
30	10	34,100	1.6	1.5	37.7	-	-	43.2	-	-	37.7	43.2	60	-
30	15	51,200	1.6	1.5	37.7	18.1	-	43.2	20.8	-	55.7	64.0	60	30
36 & 37 (no heat)	0	0	1.8	1.7	-	-	-	-	-	-	1.8	1.7	15	-
36 & 37	5	17,100	1.8	1.7	19.8	-	-	22.5	-	-	19.8	22.5	30	-
36 & 37	7.5	25,600	1.8	1.7	28.9	-	-	33.0	-	-	28.9	33.0	45	-
36 & 37	10	34,100	1.8	1.7	37.9	-	-	43.4	-	-	37.9	43.4	60	-
36 & 37	15	51,200	1.8	1.7	37.9	18.1	-	43.4	20.8	-	56.0	64.2	60	30
42 (no heat)	0	0	2.6	2.5	-	-	-	-	-	-	2.6	2.5	15	-
42	5	17,100	2.6	2.5	20.7	-	-	23.3	-	-	20.7	23.3	30	-
42	7.5	25,600	2.6	2.5	29.7	-	-	33.8	-	-	29.7	33.8	45	-
42	10	34,100	2.6	2.5	38.7	-	-	44.2	-	-	38.7	44.2	60	-
42	15	51,200	2.6	2.5	38.7	16.1	-	44.2	20.8	-	56.8	65.0	60	30
42	20	68,300	2.6	2.5	38.7	36.1	-	44.2	41.7	-	74.9	85.8	60	60
48 & 60 (no heat)	0	0	4.1	3.9	-	-	-	-	-	-	4.1	3.9	15	-
48 & 60	5	17,100	4.1	3.9	22.2	-	-	24.7	-	-	22.2	24.7	30	-
48 & 60	7.5	25,600	4.1	3.9	31.2	-	-	35.2	-	-	31.2	35.2	45	-
48 & 60	10	34,100	4.1	3.9	40.2	-	-	45.6	-	-	40.2	45.6	60	-
48 & 60	15	51,200	4.1	3.9	40.2	18.1	-	45.6	20.8	-	58.3	66.4	60	30
48 & 60	20	68,300	4.1	3.9	40.2	36.1	-	45.6	41.7	-	76.3	87.2	60	60

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

Blower

Model	Motor Size (hp)	Blower Size (in.)	Speed	CFM @ ESP - in. W.C.				
				0.1	0.2	0.3	0.4	0.5
BCS2M18	1/4	10 x 6	<i>Low* (Red)</i>	720	700	660	610	520
			Med (Blue)	1000	930	840	710	630
			High (Black)	1040	960	870	780	660
BCS2M24	1/4	10 x 6	Low (Red)	720	700	660	610	520
			<i>Med* (Blue)</i>	1000	930	840	710	630
			High (Black)	1040	960	870	780	660
BCS2M30	1/4	10 x 6	Low (Red)	930	920	890	840	740
			<i>Med* (Blue)</i>	1060	1040	1010	950	840
			High (Black)	1290	1270	1210	1150	1040
BCS2M36	1/3	11 x 8	<i>Low* (Red)</i>	1140	1120	1110	1080	1000
			Med (Blue)	1350	1350	1320	1260	1090
			High (Black)	1490	1470	1420	1340	1250
BCS2M37	1/3	11 x 8	<i>Low* (Red)</i>	1140	1120	1110	1080	1000
			Med (Blue)	1350	1350	1320	1260	1090
			High (Black)	1490	1470	1420	1340	1250
BCS2M42	1/2	11 x 8	Low (Red)	1603	1542	1474	1407	1301
			<i>Med* (Blue)</i>	1707	1635	1567	1482	1373
			High (Black)	1803	1749	1665	1545	1416
BCS2M48	1/2	11 x 8	Low (Red)	1743	1700	1641	1565	1451
			<i>Med* (Blue)</i>	2158	1943	1826	1700	1581
			High (Black)	2181	2112	1918	1771	1642
BCS2M60	1/2	11-1/2 x 9	Low (Red)	1734	1712	1688	1644	1503
			<i>Med* (Blue)</i>	2080	2038	1971	1855	1717
			High (Black)	2276	2184	2092	1958	1842

All data given while air handler is operating with a wet DX coil and air filter installed.

Speeds marked in italics with an asterisk are the factory settings for both heating and cooling.*

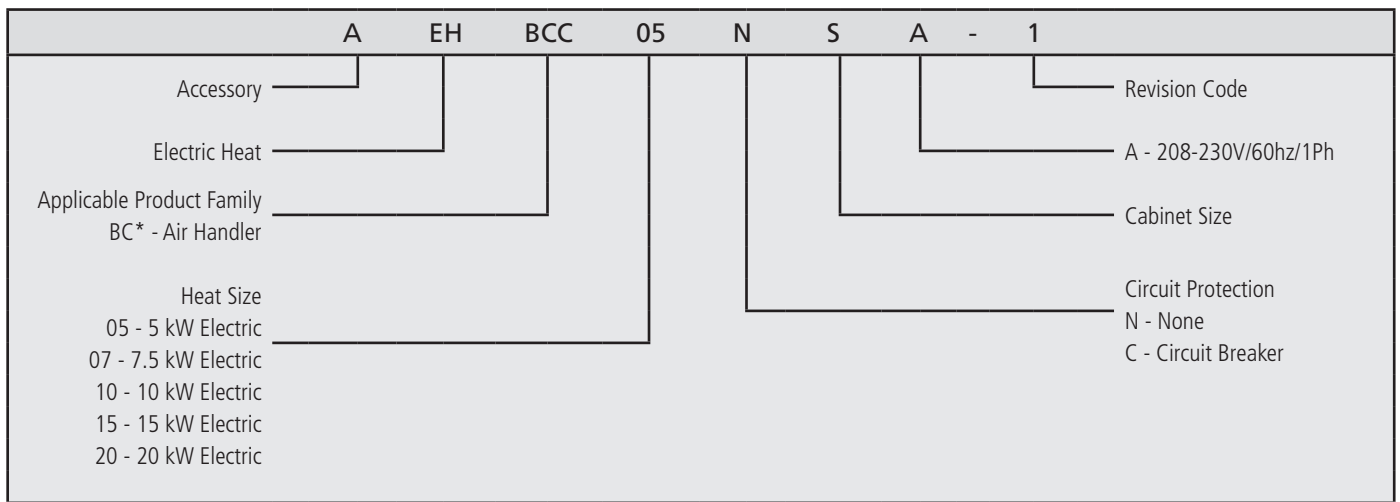
Cooling speeds should not be reduced below factory settings.

Different speeds can be set for heating mode.

Accessories

Kit Number	Description	Used with
12W61	Counterflow Kit	All BCSs
LB62009C	Single Point Power Kit	All BCSs

Electric Heat Model Number Guide



Electric Heat Kits

Kit Number	Description	Used on
AEHBCC05NSA-1	5 kW with Terminal Block	BCS2*18, 24, 30, 36, 37, 42, 48, 60
AEHBCC05CSA-1	5 kW with Circuit Breaker	BCS2*18, 24, 30, 36, 37, 42, 48, 60
AEHBCC07NSA-1	7.5 kW with Terminal Block	BCS2*18, 24, 30, 36, 37, 42, 48, 60
AEHBCC07CSA-1	7.5 kW with Circuit Breaker	BCS2*18, 24, 30, 36, 37, 42, 48, 60
AEHBCC10NSA-1	10 kW with Terminal Block	BCS2*18, 24, 30, 36, 37, 42, 48, 60
AEHBCC10CSA-1	10 kW with Circuit Breaker	BCS2*18, 24, 30, 36, 37, 42, 48, 60
AEHBCC15CSA-1	15 kW with Circuit Breaker	BCS2*30, 36, 37, 42, 48, 60
AEHBCC20CSA-1	20 kW with Circuit Breaker	BCS2*48, 60

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All specifications and illustrations
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