



Air Handlers BCS3

PRODUCT SPECIFICATIONS

- Minimum efficiency of 13 SEER when matched with appropriate outdoor models
- Suitable for use with R-22 and R-410A refrigerants
- Upflow and Horizontal (Counterflow with optional kit)
- Pre-painted cabinets with foil faced insulation
- Electrical connections from top or right side of unit
- 2% or less cabinet air leakage (meets ANSI/ASHRAE Standard 193-2010)
- Microban® anti-microbial additive for drain pans resists mold and mildew growth which improves indoor air quality and reduces drain line blockage.
- Drain pans are also UV and heat resistant for corrosion protection
- Filter racks pre-installed
- Transformer and blower relay
- Indoor blower time delay for increased efficiency
- External access to electric heat circuit breaker (if equipped)
- Optional electric heat available from 2.5kW to 20kW ranges
- Accessories
Counterflow Kit
Single Point Power Source Kit

13 SEER
1.5 to 5 Tons

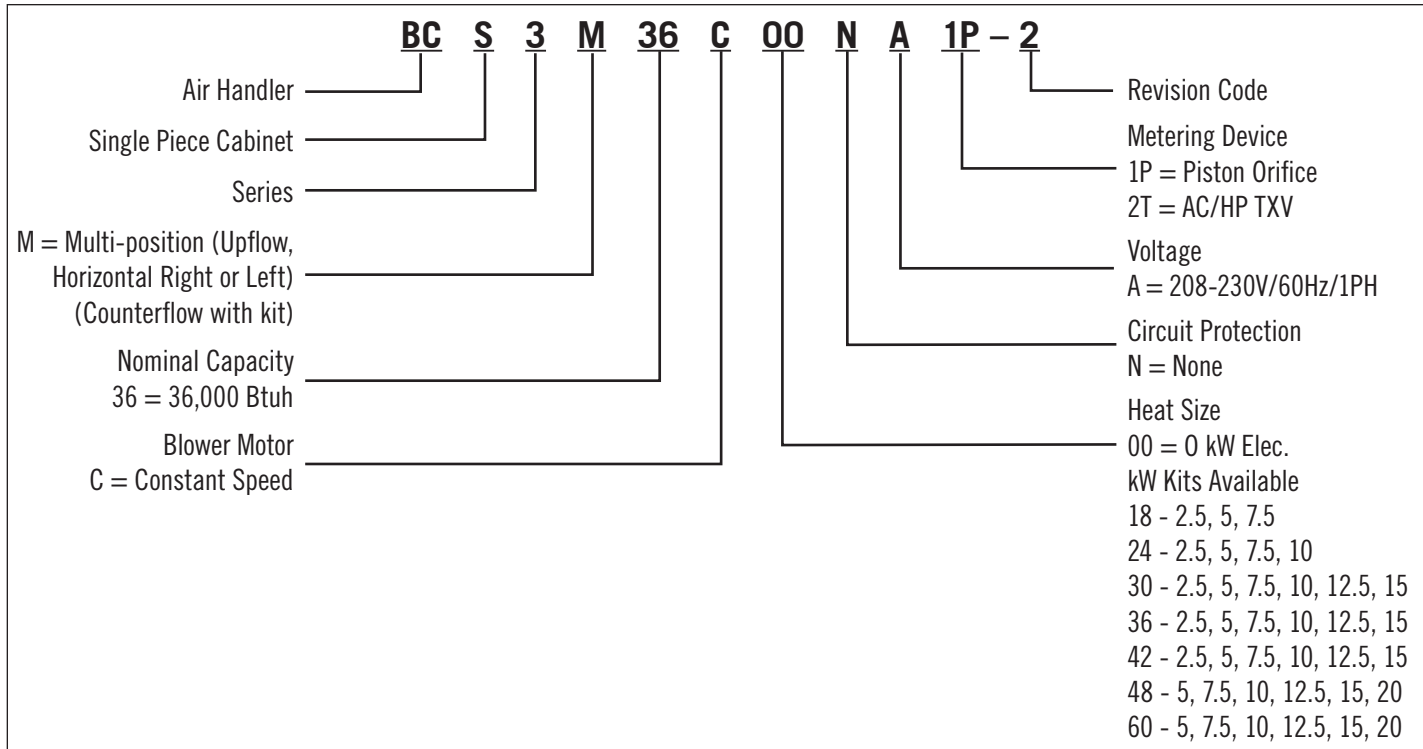


Warranty
Parts - 5 Year Limited

Air Handlers

BCS3

Model Number Identification



Specifications

Model No.	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.)		
BCS3M18	208-230/60/1	10	40 VA, Class 2	(1) 12 x 20	3/4	3/8	0.053	109
BCS3M24	208-230/60/1	10	40 VA, Class 2	(1) 15 x 20	3/4	3/8	0.057	127
BCS3M30	208-230/60/1	12.5	40 VA, Class 2	(1) 15 x 20	3/4	3/8	0.062	133
BCS3M36	208-230/60/1	15	40 VA, Class 2	(1) 18 x 20	7/8	3/8	0.071	163
BCS3M42	208-230/60/1	15	40 VA, Class 2	(1) 18 x 24	7/8	3/8	0.076	168
BCS3M48	208-230/60/1	20	40 VA, Class 2	(1) 18 x 24	7/8	3/8	0.080	186
BCS3M60	208-230/60/1	20	40 VA, Class 2	(1) 18 x 24	7/8	3/8	0.093	186

Accessories

Description	Catalog No.	Usage
Counterflow Kit	96W37	18
Counterflow Kit	96W38	24, 30
Counterflow Kit	97W95	36
Counterflow Kit	97W96	42, 48, 60
Single Point Power Source Kit	21H39	All models

Replacement Circuit Breakers

Voltage	Description	Catalog No.
208/240V - 1 Phase	25 amp, 2 pole	41K13
	30 amp, 2 pole	17K70
	35 amp, 2 pole	72K07
	40 amp, 2 pole	49K14
	45 amp, 2 pole	17K71
	50 amp, 2 pole	41K12
	60 amp, 2 pole	17K72

Air Handlers BCS3

Electrical / Electric Heat Data

BCS3M18						
Description	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
	Volt	kW	¹ Btuh			
Unit Only	208/230	---	---	1.6	2.0	15
2.5 kW ECB25-2.5 (12R08) Wire Leads	208	1.9	6,400	1.6	13	15
	220	2.1	7,200	1.6	14	15
	230	2.3	7,800	1.6	14	15
	240	2.5	8,500	1.6	15	15
5 kW ECB25-5 (12R45) Terminal Block ECB25-5CB (12R60) 30A Circuit Breaker	208	3.8	12,800	1.6	25	⁴ 25
	220	4.2	14,300	1.6	26	30
	230	4.6	15,700	1.6	27	30
	240	5.0	17,100	1.6	28	30
7.5 kW ECB25-7.5 (12R61) Terminal Block ECB25-7.5CB (12S08) 45A Circuit Breaker	208	5.6	19,200	1.6	36	⁴ 40
	220	6.3	21,500	1.6	38	⁴ 40
	230	6.9	23,500	1.6	40	⁴ 40
	240	7.5	25,600	1.6	41	45
BCS3M24						
Description	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
	Volt	kW	¹ Btuh			
Unit Only	208/230	---	---	1.6	2.0	15
2.5 kW ECB25-2.5 (12R08) Wire Leads	208	1.9	6,400	1.6	13	15
	220	2.1	7,200	1.6	14	15
	230	2.3	7,800	1.6	15	15
	240	2.5	8,500	1.6	15	15
5 kW ECB25-5 (12R45) Terminal Block ECB25-5CB (12R60) 30A Circuit Breaker	208	3.8	12,800	1.6	25	⁴ 25
	220	4.2	14,300	1.6	26	30
	230	4.6	15,700	1.6	27	30
	240	5.0	17,100	1.6	28	30
7.5 kW ECB25-7.5 (12R61) Terminal Block ECB25-7.5CB (12S08) 45A Circuit Breaker	208	5.6	19,200	1.6	36	⁴ 40
	220	6.3	21,500	1.6	38	⁴ 40
	230	6.9	23,500	1.6	40	⁴ 40
	240	7.5	25,600	1.6	41	45
10 kW ECB25-10 (10Z43) Terminal Block ECB25-10CB (10T37) 60A Circuit Breaker	208	6.8	23,000	1.6	43	⁴ 45
	220	7.6	25,800	1.6	45	⁴ 45
	230	8.3	28,200	1.6	47	⁴ 50
	240	9.0	30,700	1.6	49	⁴ 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 Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 2.

Air Handlers

BCS3

Electrical / Electric Heat Data

BCS3M30											
Description	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity		³ Maximum Overcurrent Protection		Single Point Power Source		
	Volt	kW	¹ Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection	
Unit Only	208/230	---	---	1.9	---	---	---	---	2.4	15	
2.5 kW ECB25-2.5 (12R08) Wire Leads	208	1.9	6,400	1.9	14	---	15	---	---	---	
	220	2.1	7,200	1.9	14	---	15	---	---	---	
	230	2.3	7,800	1.9	15	---	15	---	---	---	
	240	2.5	8,500	1.9	15	---	15	---	---	---	
5 kW ECB25-5 (12R45) Terminal Block ECB25-5CB (12R60) 30A Circuit Breaker	208	3.8	12,800	1.9	25	---	4 25	---	---	---	
	220	4.2	14,300	1.9	26	---	30	---	---	---	
	230	4.6	15,700	1.9	27	---	30	---	---	---	
	240	5.0	17,100	1.9	28	---	30	---	---	---	
7.5 kW ECB25-7.5 (12R61) Terminal Block ECB25-7.5CB (12S08) 45A Circuit Breaker	208	5.6	19,200	1.9	36	---	4 40	---	---	---	
	220	6.3	21,500	1.9	38	---	4 40	---	---	---	
	230	6.9	23,500	1.9	40	---	4 40	---	---	---	
	240	7.5	25,600	1.9	41	---	45	---	---	---	
10 kW ECB25-10 (10Z43) Terminal Block ECB25-10CB (10T37) 60A Circuit Breaker	208	6.8	23,000	1.9	43	---	4 45	---	---	---	
	220	7.6	25,800	1.9	45	---	4 45	---	---	---	
	230	8.3	28,200	1.9	47	---	4 50	---	---	---	
	240	9.0	30,700	1.9	49	---	4 50	---	---	---	
12.5 kW ECB25-12.5CB (12S77) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	1.9	40	19	4 40	4 20	59	60	
	220	10.5	35,800	1.9	42	20	4 45	4 20	62	70	
	230	11.5	39,200	1.9	44	21	4 45	25	65	70	
	240	12.5	42,600	1.9	46	22	50	25	67	70	
15 kW ECB25-15CB (12S87) (1) 60A and (1) 30A Circuit Breaker	208	11.3	38,400	1.9	25	45	4 25	4 50	70	70	
	220	12.6	43,000	1.9	26	48	30	4 50	74	80	
	230	13.8	47,000	1.9	27	50	30	4 50	77	80	
	240	15.0	51,200	1.9	28	52	30	60	81	90	

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

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 2.

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Electrical / Electric Heat Data

BCS3M36										
Description	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity		³ Maximum Overcurrent Protection		Single Point Power Source	
	Volt	kW	¹ Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
Unit Only	208/230	---	---	2.0	---	---	---	---	2.5	15
2.5 kW ECB25-2.5 (12R08) Wire Leads	208	1.9	6,400	2.0	14	---	15	---	---	---
	220	2.1	7,200	2.0	14	---	15	---	---	---
	230	2.3	7,800	2.0	15	---	15	---	---	---
	240	2.5	8,500	2.0	16	---	20	---	---	---
5 kW ECB25-5 (12R45) Terminal Block ECB25-5CB (12R60) 30A Circuit Breaker	208	3.8	12,800	2.0	25	---	⁴25	---	---	---
	220	4.2	14,300	2.0	26	---	30	---	---	---
	230	4.6	15,700	2.0	28	---	30	---	---	---
	240	5.0	17,100	2.0	29	---	30	---	---	---
7.5 kW ECB25-7.5 (12R61) Terminal Block ECB25-7.5CB (12S08) 45A Circuit Breaker	208	5.6	19,200	2.0	36	---	⁴40	---	---	---
	220	6.3	21,500	2.0	38	---	⁴40	---	---	---
	230	6.9	23,500	2.0	40	---	⁴40	---	---	---
	240	7.5	25,600	2.0	42	---	45	---	---	---
10 kW ECB25-10 (10Z43) Terminal Block ECB25-10CB (10T37) 60A Circuit Breaker	208	6.8	23,000	2.0	43	---	⁴45	---	---	---
	220	7.6	25,800	2.0	45	---	⁴45	---	---	---
	230	8.3	28,200	2.0	48	---	⁴50	---	---	---
	240	9.0	30,700	2.0	49	---	⁴50	---	---	---
12.5 kW ECB25-12.5CB (12S77) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	2.0	40	19	⁴40	⁴20	59	60
	220	10.5	35,800	2.0	42	20	⁴45	⁴20	62	70
	230	11.5	39,200	2.0	44	21	⁴45	25	65	70
	240	12.5	42,600	2.0	46	22	50	25	68	70
15 kW ECB25-15CB (12S87) (1) 60A and (1) 30A Circuit Breaker	208	11.3	38,400	2.0	25	45	⁴25	⁴50	70	70
	220	12.6	43,000	2.0	26	48	30	⁴50	74	80
	230	13.8	47,000	2.0	28	50	30	⁴50	78	80
	240	15.0	51,200	2.0	29	52	30	60	81	90

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

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 2.

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Electrical / Electric Heat Data

BCS3M42											
Description		Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity		³ Maximum Overcurrent Protection		Single Point Power Source	
		Volt	kW	¹ Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
Unit Only		208/230	---	---	1.9	---	---	---	---	2.4	15
2.5 kW	ECB25-2.5 (12R08) Wire Leads	208	1.9	6,400	1.9	14	---	15	---	---	---
		220	2.1	7,200	1.9	14	---	15	---	---	---
		230	2.3	7,800	1.9	15	---	15	---	---	---
		240	2.5	8,500	1.9	15	---	15	---	---	---
5 kW	ECB25-5 (12R45) Terminal Block ECB25-5CB (12R60) 30A Circuit Breaker	208	3.8	12,800	1.9	25	---	⁴ 25	---	---	---
		220	4.2	14,300	1.9	26	---	30	---	---	---
		230	4.6	15,700	1.9	27	---	30	---	---	---
		240	5.0	17,100	1.9	28	---	30	---	---	---
7.5 kW	ECB25-7.5 (12R61) Terminal Block ECB25-7.5CB (12S08) 45A Circuit Breaker	208	5.6	19,200	1.9	36	---	⁴ 40	---	---	---
		220	6.3	21,500	1.9	38	---	⁴ 40	---	---	---
		230	6.9	23,500	1.9	40	---	⁴ 40	---	---	---
		240	7.5	25,600	1.9	41	---	45	---	---	---
10 kW	ECB25-10 (10Z43) Terminal Block ECB25-10CB (10T37) 60A Circuit Breaker	208	6.8	23,000	1.9	43	---	⁴ 45	---	---	---
		220	7.6	25,800	1.9	45	---	⁴ 45	---	---	---
		230	8.3	28,200	1.9	47	---	⁴ 50	---	---	---
		240	9.0	30,700	1.9	49	---	⁴ 50	---	---	---
12.5 kW	ECB25-12.5CB (12S77) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	1.9	40	19	⁴ 40	⁴ 20	59	60
		220	10.5	35,800	1.9	42	20	⁴ 45	⁴ 20	62	70
		230	11.5	39,200	1.9	44	21	⁴ 45	25	65	70
		240	12.5	42,600	1.9	46	22	50	25	67	70
15 kW	ECB25-15CB (12S87) (1) 60A and (1) 30A Circuit Breaker	208	11.3	38,400	1.9	25	45	⁴ 25	⁴ 50	70	70
		220	12.6	43,000	1.9	26	48	30	⁴ 50	74	80
		230	13.8	47,000	1.9	27	50	30	⁴ 50	77	80
		240	15.0	51,200	1.9	28	52	30	60	81	90

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

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 2.

Air Handlers BCS3

Electrical / Electric Heat Data

BCS3M48, BCS3M60											
Description	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity		³ Maximum Overcurrent Protection		Single Point Power Source		
	Volt	kW	¹ Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection	
Unit Only	208/230	---	---	3.9	---	---	---	---	4.9	15	
5 kW ECB25-5 (12R45) Terminal Block ECB25-5CB (12R60) 30A Circuit Breaker	208	3.8	12,800	3.9	27	---	30	---	---	---	
	220	4.2	14,300	3.9	29	---	30	---	---	---	
	230	4.6	15,700	3.9	30	---	30	---	---	---	
	240	5.0	17,100	3.9	31	---	⁴ 35	---	---	---	
7.5 kW ECB25-7.5 (12R61) Terminal Block ECB25-7.5CB (12S08) 45A Circuit Breaker	208	5.6	19,200	3.9	39	---	⁴ 40	---	---	---	
	220	6.3	21,500	3.9	41	---	45	---	---	---	
	230	6.9	23,500	3.9	42	---	45	---	---	---	
	240	7.5	25,600	3.9	44	---	45	---	---	---	
10 kW ECB25-10 (10Z43) Terminal Block ECB25-10CB (10T37) 60A Circuit Breaker	208	6.8	23,000	3.9	45	---	⁴ 45	---	---	---	
	220	7.6	25,800	3.9	48	---	⁴ 50	---	---	---	
	230	8.3	28,200	3.9	50	---	4 50	---	---	---	
	240	9.0	30,700	3.9	52	---	60	---	---	---	
12.5 kW ECB25-12.5CB (12S77) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	3.9	42	19	⁴ 45	⁴ 20	61	70	
	220	10.5	35,800	3.9	45	20	⁴ 45	⁴ 20	64	70	
	230	11.5	39,200	3.9	46	21	50	25	67	70	
	240	12.5	42,600	3.9	48	22	50	25	70	70	
15 kW ECB25-15CB (12S87) (1) 60A and (1) 30A Circuit Breaker	208	11.3	38,400	3.9	27	45	30	⁴ 50	72	80	
	220	12.6	43,000	3.9	29	48	30	⁴ 50	76	80	
	230	13.8	47,000	3.9	30	50	30	⁴ 50	80	80	
	240	15.0	51,200	3.9	31	52	⁴ 35	60	83	90	
20 kW ECB25-20CB (10T35) (1) 60A and (1) 60A Circuit Breaker	208	15.0	51,200	3.9	45	50	⁴ 45	⁴ 50	95	100	
	220	16.8	57,300	3.9	48	53	⁴ 50	60	100	100	
	230	18.4	62,700	3.9	50	55	⁴ 50	60	105	110	
	240	20.0	68,200	3.9	52	57	60	60	109	110	

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.

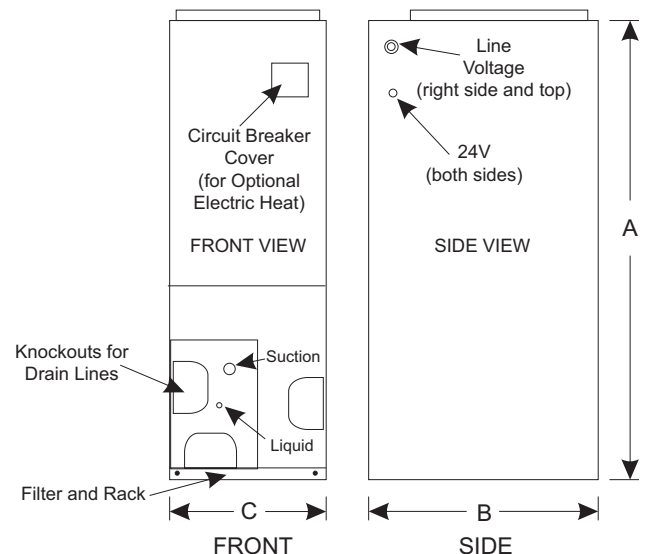
² Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 2.

Dimensions (in.)

Model No.	A Height	B Depth	C Width	Supply Duct Opening		Return Duct Opening	
				Depth	Width	Depth	Width
BCS3M18	38	22	15	14-1/2	13	20 -3/8	12 3/4
BCS3M24	40-1/2	22	18 -1/2	14-1/2	16 -1/2	20 -3/8	16-1/4
BCS3M30	43	22	18 -1/2	14-1/2	16 -1/2	20 -3/8	16-1/4
BCS3M36	52-1/2	22	21 -7/8	14-1/2	19 -7/8	20 -3/8	19 -5/8
BCS3M42	48	26-1/4	21 -7/8	18-3/4	19 -7/8	24 -5/8	19 -5/8
BCS3M48	52-1/2	26-1/4	21 -7/8	18-3/4	19 -7/8	24 -5/8	19 -5/8
BCS3M60	52-1/2	26-1/4	21 -7/8	18-3/4	19 -7/8	24 -5/8	19 -5/8



Air Handlers

BCS3

Blower Data

Model	Motor Size (hp)	Blower Size (in.)	CFM vs. External Static Pressure (in. w.c.)					
			Speed	.10	.20	.30	.40	.50
BCS3M18	1/4	9 x 6	¹ Low (Red)	510	495	475	420	325
			Med (Blue)	670	650	630	595	505
			High (Black)	905	865	820	770	705
BCS3M24	1/3	9 x 6	Low (Red)	630	625	615	610	580
			¹ Med (Blue)	885	875	850	820	780
			High (Black)	1130	1100	1070	1010	950
BCS3M30	1/3	10 x 8	Low (Red)	900	865	830	780	740
			¹ Med (Blue)	1075	1060	1030	985	940
			High (Black)	1240	1210	1170	1135	1085
BCS3M36	1/2	10 x 9	¹ Low (Red)	1075	1040	1000	950	900
			Med (Blue)	1300	1250	1205	1145	1085
			High (Black)	1510	1450	1390	1320	1245
BCS3M42	1/2	11 x 8	Low (Red)	1325	1315	1300	1275	1225
			¹ Med (Blue)	1490	1465	1440	1395	1315
			High (Black)	1820	1770	1690	1600	1500
BCS3M48	1/2	11-1/2 x 9	Low (Red)	1775	1710	1645	1565	1470
			¹ Med (Blue)	1995	1895	1800	1685	1560
			High (Black)	2070	1970	1850	1719	1595
BCS3M60	1/2	12 x 9	Low (Red)	1675	1630	1580	1520	1450
			¹ Med (Blue)	1965	1925	1875	1800	1695
			High (Black)	2140	2085	2000	1895	1795

¹ Factory setting - All models.

NOTE - Air data measured with wet coil and filter installed.

NOTE - Cooling speeds should not be reduced below factory setting. Different speeds can be used for heating.



1.800.982.2333
www.aireflo-hvac.com



210776 BCS3 (8/16)



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