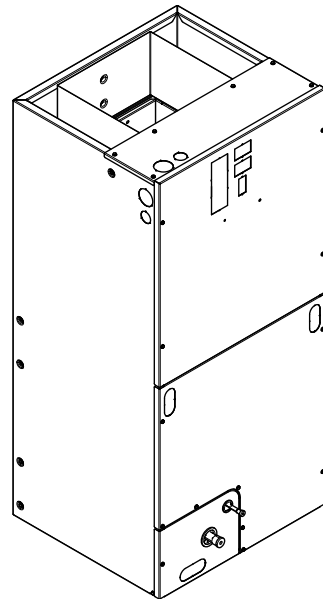


Submittal

Variable Speed Convertible Air Handlers 1.5 – 2.5 Ton

5TEMCB03AV31DA



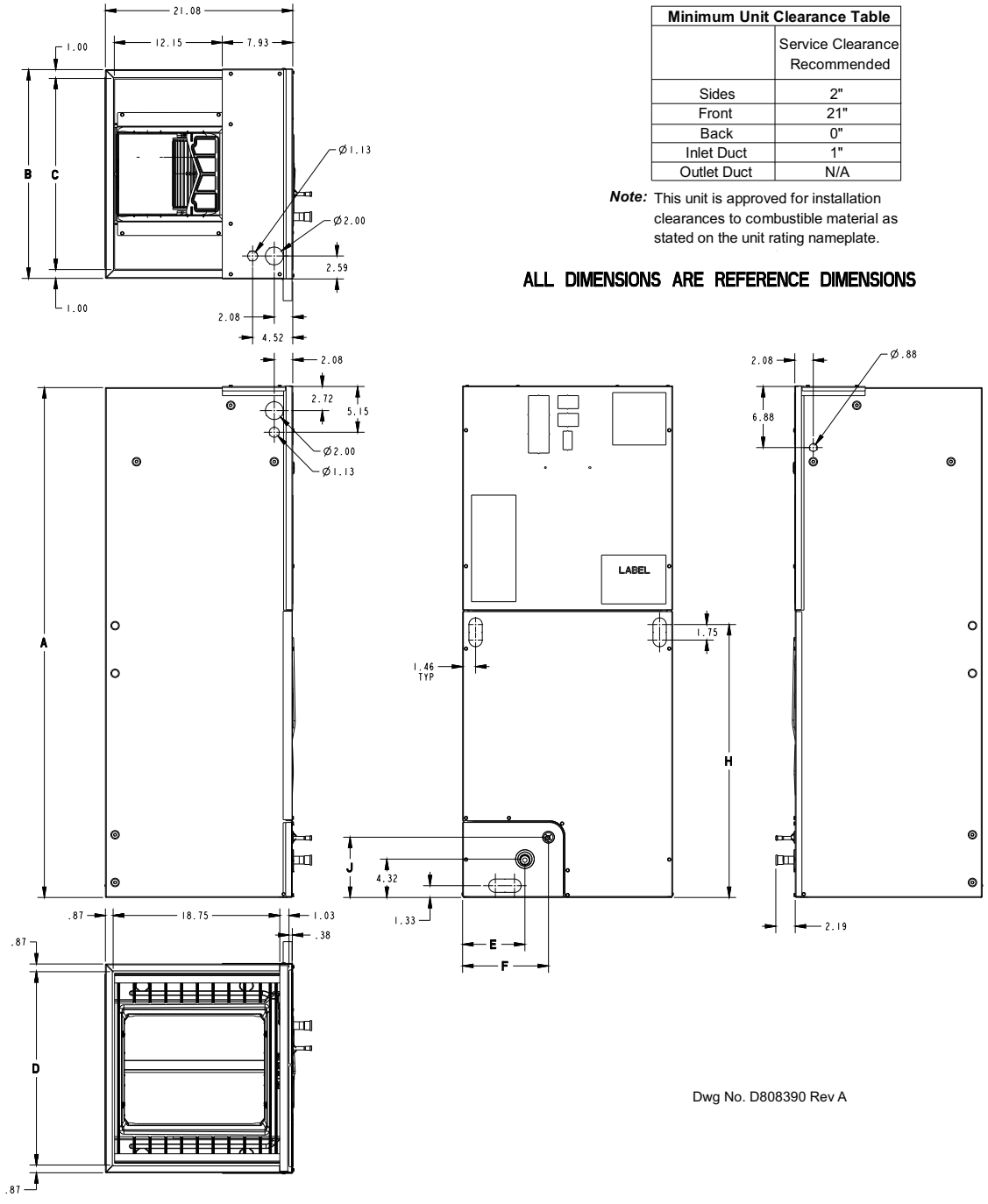
The Diagnostics Mobile App is available by scanning a QR code located inside this unit or by searching for the Link Diagnostics App in your App Store.

Note: The 5TEMC series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to air conditioning and heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment. Field installed electric resistance heaters are available.

Note: This unit can be used in Link Communicating mode or 24 volt mode.

Note: Use Diagnostics App to configure blower delays, accessories, ect. in 24 volt mode.

Outline Drawing



Dwg No. D808390 Rev A

PRODUCT DIMENSIONS										
Air Handler Model	A	B	C	D	E	F	H	J	Flow Control	Gas Line Braze
5TEMCB03	46.77	18.50	16.50	16.75	5.43	7.08	20.07	5.76	TXV	3/4
All dimensions are in inches										

Product Specifications

MODEL	5TEMCB03AV31DA
Family Description	R-454B Variable Speed Air Handler
Description	R-454B Variable Speed Air Handler, All-Aluminum Plate Fin Coil, 4-Way Poise, Link Communicating or 24V System Control, 208-230/1/60, 18K - 30K BTUH Capacity
Application Configuration	4-Way
RATED CAPACITY RANGE (BTUH)	18K - 30K
SYSTEM CONTROL TYPE	Link Communicating or 24V
POWER CONN. - V/PH/HZ	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps) ^(a)	15
Max Breaker Size, With Electric Heater (Amps)	60
Name Plate	See Unit Nameplate
COIL TYPE	All-Aluminum Plate Fin
Refrigerant Type	R-454B
Refrigerant Control	TXV
Refrigerant Line Connection - Gas (in.)	3/4
Refrigerant Line Connection - Liquid (in.)	3/8
BLOWER TYPE	Direct Drive Centrifugal
Configuration	Draw Through
Dimensions (Diameter x Width (in.))	11 x 8
Motor Type	Variable Speed
Nominal CFM ^(b)	1000
Speed (RPM)	1050
Volts/Ph/Hz	208-230/1/60
Full Load Amps	3.9
FILTER RACK (YES, NO)	No
Dimensions (Length x Width (in.))	n/a
DUCT CONNECTIONS	L x W
Supply (in.)	12.15 x 16.50
Return (in.)	18.75 x 16.75
DRAIN CONN. SIZE (IN.)	3/4 NPT
DIMENSIONS	H x W x D
Uncrated (in.)	46-3/4 x 18-1/2 x 21-1/8
Crated (in.)	48-1/4 x 22-1/2 x 25-1/2
WEIGHT - SHIPPING/NET (LBS.)	126/117

^(a) Maximum overcurrent protection is dependent on which electric heater is installed. See Installation, Operation, and Maintenance manual or unit name plate.

^(b) For CFM versus external static pressure (in. w.c.), refer to Installation, Operation, and Maintenance manual.

Minimum Airflow CFM

5TEMCB03AV31DA		
Heater	Minimum Heater Airflow CFM	
	With Heat Pump	Without Heat Pump
BAYHTR1504+++, BAYHTR1505+++	650	600
BAYHTR1508+++, BAYHTR1510+++	850	700
BAYHTR1517BRK, BAYHTR3517LUG	1000	850
BAYHTR3510LUG	850	700

Note: Heater model number digits "+++" are LUG or BRK.

Heater Pressure Drop Table

Airflow CFM	Number of Racks					Heater Racks	
	1	2	3	4		Heater Model	No. of Racks
	Air Pressure Drop — Inches W.G.					BAYHTR1504	1
1800	0.02	0.04	0.06	0.14		BAYHTR1505	1
1700	0.02	0.04	0.06	0.14		BAYHTR1508	2
1600	0.02	0.04	0.06	0.13		BAYHTR1510	2
1500	0.02	0.04	0.06	0.12		BAYHTR1517	3
1400	0.02	0.04	0.06	0.12		BAYHTR3510	3
1300	0.02	0.04	0.05	0.11		BAYHTR3517	3
1200	0.01	0.04	0.05	0.10		BAYHTR1523	4
1100	0.01	0.03	0.05	0.09		BAYHTR1525	4
1000	0.01	0.03	0.04	0.09			
900	0.01	0.03	0.04	0.08			
800	0.01	0.03					
700	0.01	0.02					
600	0.01	0.02					

Performance Data

5TEMCB03AV31DA AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE													
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM/ Constant Torque)				HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9		0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM Watts	430/538 50/39	430/415 75/48	430/264 95/43	430/NA 110/NA	430/NA 145/NA	CFM Watts	434 34	419 64	419 96	403 130	384 167
	350 CFM/ton	CFM Watts	520/620 60/53	520/514 90/64	520/398 120/61	520/NA 135/NA	510/NA 175/NA	CFM Watts	521 44	512 77	514 112	500 153	485 196
	400 CFM/ton	CFM Watts	590/688 75/67	590/593 105/80	590/493 140/80	590/NA 160/NA	590/NA 205/NA	CFM Watts	595 56	589 91	595 127	584 173	573 222
	450 CFM/ton	CFM Watts	670/758 85/85	670/711 125/100	660/581 160/102	660/NA 190/NA	660/NA 235/NA	CFM Watts	668 71	667 107	675 145	668 196	660 250
	290 CFM/ton	CFM Watts	570/670 60/63	570/573 90/76	570/469 125/75	570/NA 165/NA	568/NA 215/NA	CFM Watts	575 53	569 87	573 123	561 167	549 215
2 tons	350 CFM/ton	CFM Watts	690/781 85/91	690/696 120/107	690/609 160/110	690/518 210/98	680/NA 259/NA	CFM Watts	693 76	693 113	702 152	696 204	689 259
	400 CFM/ton	CFM Watts	790/875 110/122	790/798 150/140	790/720 195/145	780/639 250/137	780/555 301/115	CFM Watts	791 103	795 143	805 184	803 240	798 301
	450 CFM/ton	CFM Watts	890/971 145/161	890/899 185/181	880/827 235/189	880/754 295/184	880/680 347/184	CFM Watts	889 138	895 181	902 226	899 284	891 347
	290 CFM/ton	CFM Watts	720/823 90/104	720/741 140/120	710/659 170/124	710/573 220/115	710/481 260/91	CFM Watts	717 82	718 120	728 159	723 212	717 269
	350 CFM/ton	CFM Watts	870/963 140/157	860/892 182/177	873/819 235/185	860/746 290/180	850/671 330/161	CFM Watts	865 128	871 170	879 214	876 272	869 335
2.5 tons	390 CFM/ton	CFM Watts	969/1087 143/166	985/1011 198/191	993/921 262/205	982/809 329/189	1000/770 399/177	CFM Watts	969 134	989 188	1004 250	999 323	1026 402
	400 CFM/ton	CFM Watts	993/1114 152/176	1008/1035 208/200	1017/943 273/214	1015/828 341/196	1022/787 413/194	CFM Watts	993 142	1013 197	1028 261	1023 335	1049 416
	450 CFM/ton	CFM Watts	993/1114 152/176	1008/1035 208/200	1017/943 273/214	1015/828 341/196	1022/787 413/194	CFM Watts	993 142	1013 197	1028 261	1023 335	1049 416
	290 CFM/ton	CFM Watts	868/974 111/128	884/907 163/156	891/826 220/173	893/729 281/162	894/688 345/162	CFM Watts	868 103	888 154	901 211	900 277	917 347
	350 CFM/ton	CFM Watts	993/1114 152/176	1008/1035 208/200	1017/943 273/214	1015/828 341/196	1022/787 413/194	CFM Watts	993 142	1013 197	1028 261	1023 335	1049 416
3 tons †	390 + CFM/ton	CFM Watts	993/1114 152/176	1008/1035 208/200	1017/943 273/214	1015/828 341/196	1022/787 413/194	CFM Watts	993 142	1013 197	1028 261	1023 335	1049 416
	400 CFM/ton	CFM Watts	993/1114 152/176	1008/1035 208/200	1017/943 273/214	1015/828 341/196	1022/787 413/194	CFM Watts	993 142	1013 197	1028 261	1023 335	1049 416
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† Factory Setting Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower. In horizontal and downflow applications, airflow should be limited to 1000 CFM due to condensate blowoff.													
• Torque mode will reduce airflow when static is above approximately 0.3" water column. • All heating modes default to Constant CFM. • Cooling airflow values are with wet coil, no filter													

Electrical Data

Note: Heater size needs to be set in Configuration Menu.

Table 1. Electrical Data

STEMCB03AV31DA HEATER DATA											
Heater Model No.	No. of Circuits/ Phases	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater				3.9 *	5	15			3.9 *	5	15
BAYHTR1504BRK	1/1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYHTR1504LUG											
BAYHTR1505BRK	1/1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYHTR1505LUG											
BAYHTR1508BRK	1/1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYHTR1508LUG											
BAYHTR1510BRK	1/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1510LUG											
BAYHTR1517BRK	2/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
Circuit 1 ^(a)											
BAYHTR1517BRK	2/1	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Circuit 2											
BAYHTR3510LUG	1/3	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYHTR3517LUG	1/3	14.40	49100	34.6	48	50	10.80	36900	30.0	42	45

* = Motor Amps

^(a) MCA and MOP for circuit 1 contains the motor amps

Features and Benefits

- Link™ Communicating or 24V control
- Painted metal cabinet with captured foil face insulation
- 2% or less air leakage
- R-4.2 Insulating Value
- Multi-Position UP/Down Flow, Horizontal Left /Right
- ALL Aluminum Coil
- Electric Heaters with polarized plug connections (sold as accessory)
- R-454B Thermal Expansion Valve
- Variable Speed ECM Motor
- Low Voltage Pigtail Connections
- Draw Through Design
- Horizontal Drain Pan
- Single Color
- Fused 24V Power
- **5 Year Base Limited Warranty**
- **10 Year Registered Limited Warranty**
- **Optional extended warranty available**

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