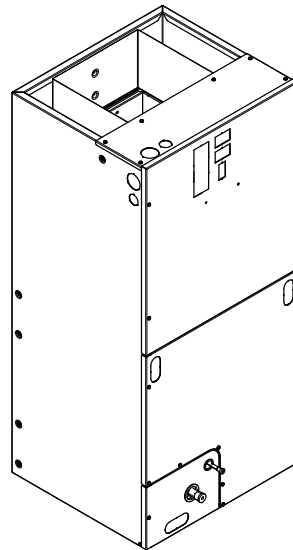


# Submittal

## Variable Speed Convertible Air Handler 2 Ton

TEM8A0B24V21DB



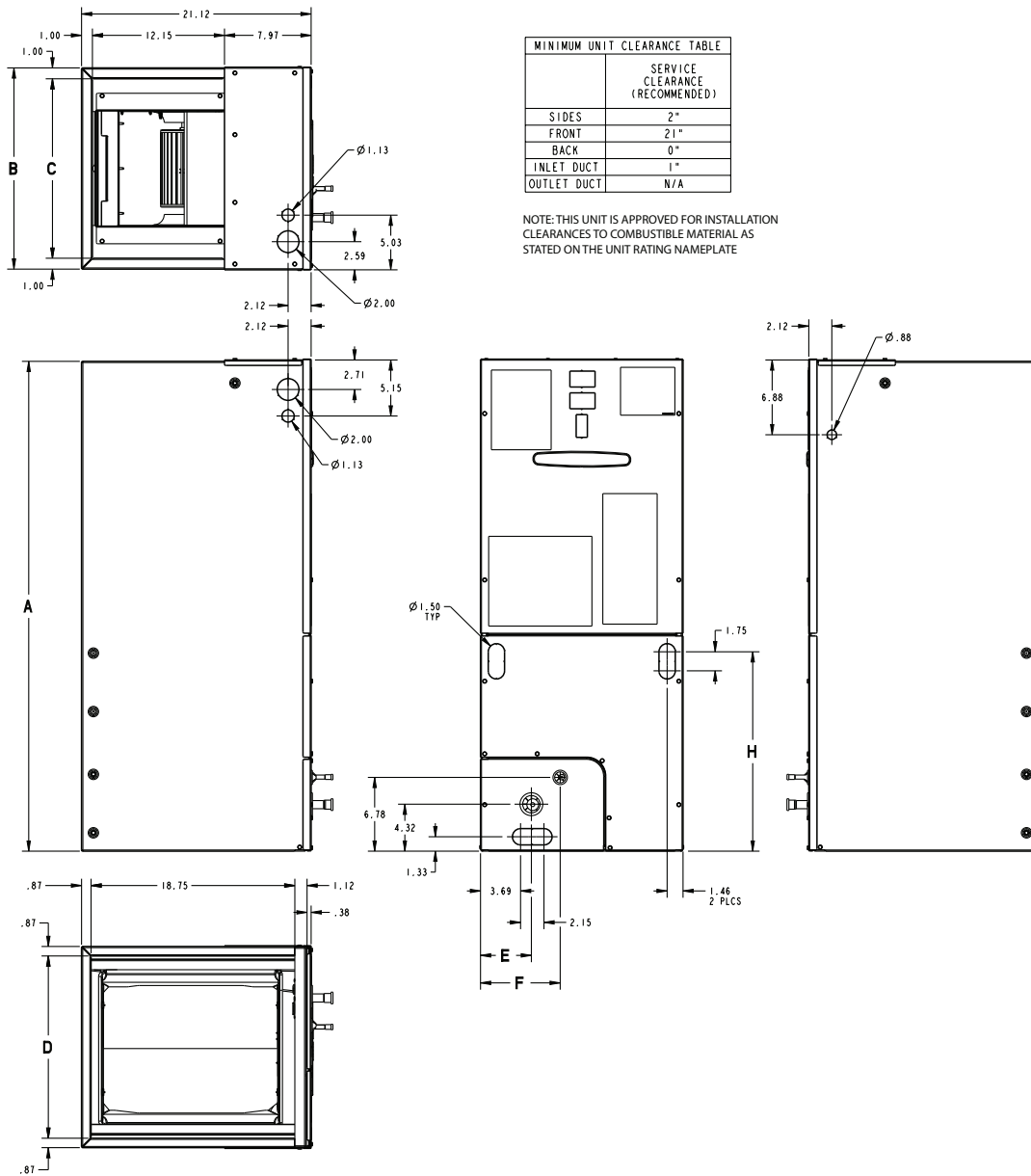
**Note:** The TEM8 series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to air conditioning and heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment. Field installed electric resistance heaters are available.

TAG: \_\_\_\_\_

### ▲ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

# Outline Drawing



MINIMUM UNIT CLEARANCE TABLE	
	SERVICE CLEARANCE (RECOMMENDED)
SIDES	2"
FRONT	21"
BACK	0"
INLET DUCT	1"
OUTLET DUCT	N/A

NOTE: THIS UNIT IS APPROVED FOR INSTALLATION CLEARANCES TO COMBUSTIBLE MATERIAL AS STATED ON THE UNIT RATING NAMEPLATE

PRODUCT DIMENSIONS									
Air Handler Model	A	B	C	D	E	F	H	Flow Control	Gas Line Braze
TEM8A0B24V21DB	46.77	18.50	16.50	16.75	4.68	7.33	20.09	TXV	3/4

All dimensions are in inches

# Product Specifications

<b>MODEL</b>	TEM8A0B24V21DB
<b>RATED VOLTS/PH/HZ</b>	208-230/1/60
<b>RATINGS<sup>(a)</sup></b>	See O.D. Specifications
<b>INDOOR COIL — Type</b>	Plate Fin
Rows — F.P.I.	4 - 14
Face Area (sq. ft.)	3.44
Tube Size (in.)	3/8
Refrigerant Control	TXV
Drain Conn. Size (in.) <sup>(b)</sup>	3/4 NPT
<b>DUCT CONNECTIONS</b>	<b>See Outline Drawing</b>
<b>INDOOR FAN — Type</b>	Centrifugal
Diameter-Width (In.)	11 X 8
No. Used	1
Drive - No. Speeds	Direct - 16
CFM vs. in. w.g.	See Fan Performance Table
No. Motors — H.P.	1 - 1/3
Motor Speed R.P.M.	Variable
Volts/Ph/Hz	208-230/1/60

F.L. Amps	2.8
<b>FILTER</b>	
Filter Furnished? <sup>(c)</sup>	No
<b>REFRIGERANT</b>	<b>R-410A</b>
Ref. Line Connections	Brazed
Coupling or Conn. Size — in. Gas	3/4
Coupling or Conn. Size — in. Liq.	3/8
<b>DIMENSIONS</b>	H x W x D
Crated (In.)	48-1/4 x 22-1/2 x 25-1/2
Uncrated	46-3/4 x 18-1/2 x 21-1/8
<b>WEIGHT</b>	
Shipping (Lbs.) / Net (Lbs.)	126/117

<sup>(a)</sup> These Air Handlers are A.H.R.I certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240). Refer to the Split System Outdoor Unit Product Data Guides for performance data.

<sup>(b)</sup> 3/4" Male Plastic Pipe (Ref: ASTM 1785-76)

<sup>(c)</sup> Remote filter required.

## Minimum Airflow CFM

TEM8A0B24V21DB		
Heater	Minimum Heater Airflow CFM	
	With Heat Pump	Without Heat Pump
BAYHTR1504BRK, BAYHTR1504LUG BAYHTR1505BRK, BAYHTR1505LUG	650	600
BAYHTR1508BRK, BAYHTR1508LUG	850	700
BAYHTR1510BRK, BAYHTR1510LUG	850	700
BAYHTR1517BRK	1000	850
BAYHTR3510LUG	850	700
BAYHTR3517LUG	1000	850

# 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.					
1800	0.02	0.04	0.06	0.14	BAYHTR1504	1
1700	0.02	0.04	0.06	0.14	BAYHTR1505	1
1600	0.02	0.04	0.06	0.13	BAYHTR1508	2
1500	0.02	0.04	0.06	0.12	BAYHTR1510	2
1400	0.02	0.04	0.06	0.12	BAYHTR1516	3
1300	0.02	0.04	0.05	0.11	BAYHTR3510	3
1200	0.01	0.04	0.05	0.10	BAYHTR3515	3
1100	0.01	0.03	0.05	0.09	BAYHTR1517	3
1000	0.01	0.03	0.04	0.09	BAYHTR1522	4
900	0.01	0.03	0.04	0.08	BAYHTR1523	4
800	0.01	0.03			BAYHTR3517	3
700	0.01	0.02			BAYHTR1525	4
600	0.01	0.02				

## Subcooling Adjustment

System Matched with:	Indoor Unit Model No.	Outdoor Model No.	Subcooling
16 SEER HP — 2 ton	TEM8A0C36V31	4TWR6024H1000A 4TWX6024H1000A 4A6H6024H1000A	13 Degrees
15 SEER HP — 2 ton	TEM8A0B24V21 TEM8A0B30V31	4TWR5024G1000A 4A6H5024G1000A	14 Degrees
15 SEER HP — 3 ton	TEM8A0B30V31 TEM8A0C36V31 TEM8A0C42V41	4TWR5036G1000A 4A6H5036G1000A	14 Degrees
All other matches must be charged per the nameplate charging instructions			

# Performance and Electrical Data

TEM8A0B24V21DB 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
1.5 tons	290 CFM/ton	CFM Watts	430 / 538 50 / 39	430 / 415 75 / 48	430 / 264 95 / 43	430 / NA 110 / NA	290 CFM/ton	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	350 CFM/ton	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	400 CFM/ton	CFM Watts	595 56	589 91	595 127	584 173	573 222
	450 CFM/ton	CFM Watts	670 / 758 85 / 85	670 / 671 125 / 100	660 / 581 160 / 102	660 / NA 190 / NA	450 CFM/ton	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	290 CFM/ton	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	350 CFM/ton	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	400 CFM/ton	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	450 CFM/ton	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	290 CFM/ton	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 / 746 280 / 180	350 CFM/ton	CFM Watts	865 128	871 170	879 214	876 272	869 335
2.5 tons †	390 † CFM/ton	CFM Watts	958 / 1075 147 / 170	975 / 1000 203 / 195	946 / 878 269 / 211	871 / 711 342 / 197	390 † CFM/ton	CFM Watts	958 138	979 192	957 257	878 336	822 406
	400 CFM/ton	CFM Watts	980 / 1100 157 / 181	993 / 1019 213 / 205	958 / 889 280 / 219	875 / 714 357 / 205	400 CFM/ton	CFM Watts	980 146	998 202	969 268	882 351	821 422
	450 CFM/ton	CFM Watts	980 / 1100 157 / 181	993 / 1019 213 / 205	958 / 889 280 / 219	875 / 714 357 / 205	450 CFM/ton	CFM Watts	980 146	998 202	969 268	882 351	821 422

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- To prevent water blow-off, the max airflow demand allowable is 1000 CFM. If an outdoor multiplier and cooling airflow setting should result in a demand higher than 1000, the AFC will default the demand back to 1000.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- In communicating mode, default CFM/Ton is 400.
- Cooling airflow values are with wet coil, no filter

## Performance and Electrical Data

1. See Product Data or Air Handler nameplate for approved combinations of Air Handlers and Heaters.
2. Heater model numbers may have additional suffix digits.

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

**Table 1. Electrical Data**

TEM8A0B24V21DB 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				2.8 *	4	15			2.8 *	4	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	24	25	2.88	9800	13.8	21	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1517BRK Circuit 1 <sup>(a)</sup>	2/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1517BRK Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR3510LUG	1/3	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
BAYHTR3517LUG	1/3	14.40	49100	34.6	46	50	10.80	36900	30.0	41	45

\* = Motor Amps

<sup>(a)</sup> MCA and MOP for circuit 1 contains the motor amps

# Features and Benefits

- Communicating or 24 V 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 with Enhanced Patented Coil Fin
- Electric Heaters with polarized plug connections (sold as accessory)
- R-410A Thermal Expansion Valve
- Variable Speed ECM Motor
- Low Voltage Pigtail Connections
- Draw Through Design
- Horizontal Drain Pan
- Single Color
- Fused 24V Power
- **3 year warranty**
- **10-year warranty registered**
- **Optional extended warranty available**



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