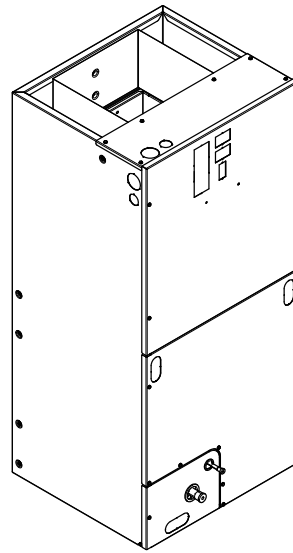


Submittal

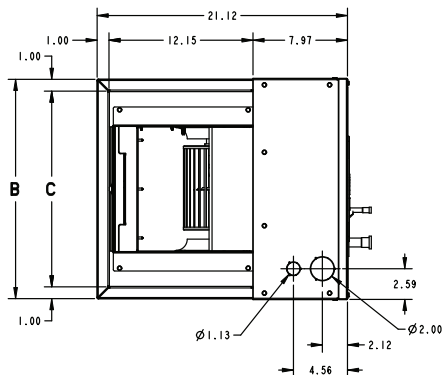
Variable Speed Convertible Air Handler 2-1/2 Ton

TEM8A0B30V31DC



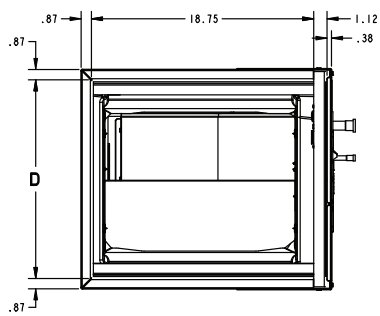
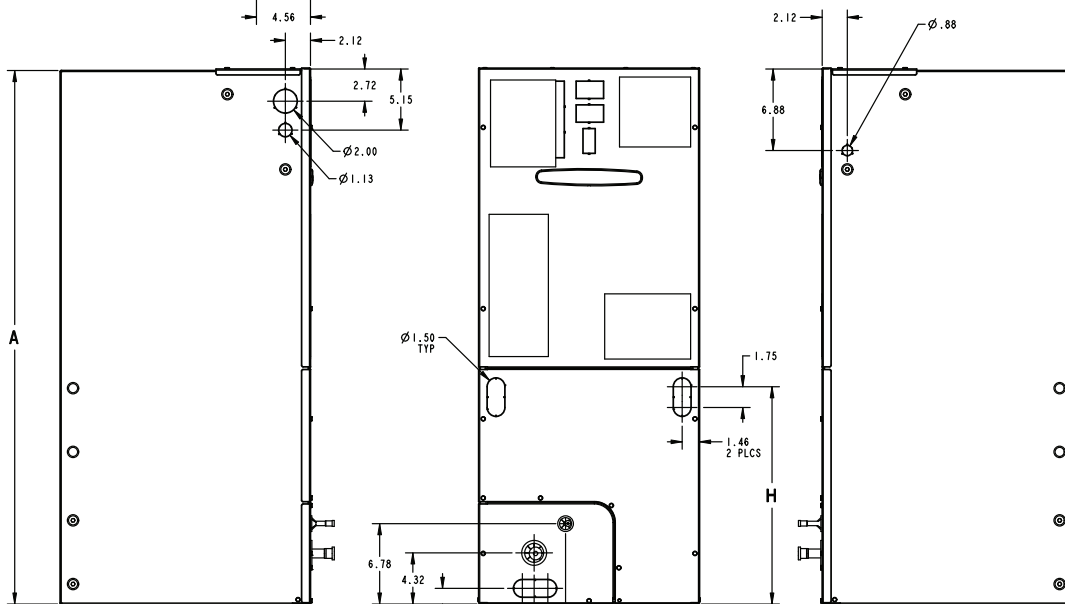
Note: The TEM8 series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to air conditioning and heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment.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

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
TEM8A0B30V31DC	46.77	18.50	16.50	16.75	4.68	7.33	20.09	TXV	3/4

All dimensions are in inches

Product Specifications

MODEL	TEM8A0B30V31DC
RATED VOLTS/PH/HZ	208-230/1/60
RATINGS^(a)	See O.D. Specifications
INDOOR COIL — Type	Plate Fin
Rows — F.P.I.	3 — 14
Face Area (sq. ft.)	4.13
Tube Size (in.)	3/8
Refrigerant Control	TXV
Drain Conn. Size (in.) ^(b)	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing
INDOOR FAN — Type	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 - 1/2
Motor Speed R.P.M.	Variable
Volts/Ph/Hz	208-230/1/60

F.L. Amps	3.9
FILTER	
Filter Furnished? ^(c)	No
REFRIGERANT	R-410A
Ref. Line Connections	Brazed
Coupling or Conn. Size — in. Gas	3/4
Coupling or Conn. Size — in. Liq.	3/8
DIMENSIONS	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
WEIGHT	
Shipping (Lbs.) / Net (Lbs.)	126/117

^(a) 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.

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

^(c) Remote filter required.

Minimum Airflow CFM

TEM8A0B30V31DC		
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	BAYHTR3510	3
1300	0.02	0.04	0.05	0.11	BAYHTR1517	3
1200	0.01	0.04	0.05	0.10	BAYHTR1523	4
1100	0.01	0.03	0.05	0.09	BAYHTR3517	3
1000	0.01	0.03	0.04	0.09	BAYHTR1525	4
900	0.01	0.03	0.04	0.08		
800	0.01	0.03				
700	0.01	0.02				
600	0.01	0.02				

Subcooling Adjustment

System Matched with:	Indoor Unit Model No.	Outdoor Model No.	Subcooling
15 SEER HP — 3 ton	TEM8A0C36V31 TEM8A0C42V41	4TWR5036G1000A 4A6H5036G1000A	14 Degrees
All other matches must be charged per the nameplate charging instructions			

Performance and Electrical Data

OUTDOOR MULTIPLIER (TONS)	TEM8A0B30V31DC AIRFLOW PERFORMANCE										CONSTANT CFM MODE / CONSTANT TORQUE MODE									
	EXTERNAL STATIC PRESSURE (Constant CFM / Torque)					AIRFLOW POWER	COOLING AIRFLOW SETTING	AIRFLOW POWER	HEATING AIRFLOW SETTING					EXTERNAL STATIC PRESSURE						
	0.1	0.3	0.5	0.7	0.9				290 CFM/ton	290 CFM/ton	290 CFM/ton	290 CFM/ton	290 CFM/ton	290 CFM/ton	0.1	0.3	0.5	0.7	0.9	
1.5 tons	430/538	430/415	430/264	430/NA	430/NA	CFM	290	CFM	290	CFM	290	434	419	419	403	384				
	50/39	75/48	95/43	110/NA	110/NA	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	34	64	96	130	167					
	520/620	520/514	520/398	520/NA	520/NA	CFM	350	CFM	350	CFM	521	514	514	500	485					
	60/53	90/64	120/61	135/NA	135/NA	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	44	77	112	153	196					
	590/688	590/593	590/493	590/NA	590/NA	CFM	400	CFM	400	CFM	595	589	595	584	573					
2 tons	75/67	105/80	140/80	160/NA	160/NA	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	56	91	127	173	222					
	670/758	670/671	660/581	660/NA	660/NA	CFM	450	CFM	450	CFM	668	667	675	668	660					
	85/85	125/100	160/102	190/NA	190/NA	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	71	107	145	196	250					
	570/670	570/573	570/469	570/NA	570/NA	CFM	290	CFM	290	CFM	575	569	573	561	549					
	60/63	90/76	125/75	165/NA	165/NA	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	53	87	123	167	215					
2.5 tons	690/781	690/696	690/609	690/518	690/NA	CFM	350	CFM	350	CFM	693	693	702	696	689					
	85/91	120/107	160/110	210/98	210/98	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	76	113	152	204	259					
	790/875	790/798	790/720	780/639	780/555	CFM	400	CFM	400	CFM	791	795	805	803	798					
	110/122	150/140	195/145	250/137	301/115	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	103	143	184	240	301					
	890/971	890/899	880/827	880/754	880/680	CFM	450	CFM	450	CFM	889	895	902	899	891					
2.5 tons	145/161	185/181	235/189	295/184	347/184	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	138	181	226	284	347					
	720/823	720/741	710/659	710/573	710/481	CFM	290	CFM	290	CFM	717	718	728	723	717					
	90/104	140/120	170/124	220/115	260/91	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	82	120	159	212	269					
	870/963	860/892	873/819	860/746	850/671	CFM	350	CFM	350	CFM	865	871	879	876	869					
	140/157	182/177	235/185	280/180	330/161	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	128	170	214	272	335					
2.5 tons	969/1087	985/1011	993/921	992/809	1000/770	CFM	390	CFM	390	CFM	969	989	1004	999	1026					
	143/166	198/191	262/205	329/189	399/187	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	134	188	250	323	402					
	993/1114	1008/1035	1017/943	1015/828	1022/787	CFM	400	CFM	400	CFM	993	1013	1028	1023	1049					
	152/176	208/200	273/214	341/196	413/194	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	142	197	261	335	416					
	993/1114	1008/1035	1017/943	1015/828	1022/787	CFM	450	CFM	450	CFM	993	1013	1028	1023	1049					
3 tons †	152/176	208/200	273/214	341/196	413/194	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	142	197	261	335	416					
	868/974	884/907	891/826	893/729	894/688	CFM	290	CFM	290	CFM	868	888	901	900	917					
	111/128	163/156	220/173	281/162	345/162	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	103	154	211	277	347					
	993/1114	1008/1035	1017/943	1015/828	1022/787	CFM	350	CFM	350	CFM	993	1013	1028	1023	1049					
	152/176	208/200	273/214	341/196	413/194	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	142	197	261	335	416					
3 tons †	993/1114	1008/1035	1017/943	1015/828	1022/787	CFM	390 †	CFM	390 †	CFM	993	1013	1028	1023	1049					
	152/176	208/200	273/214	341/196	413/194	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	142	197	261	335	416					
	993/1114	1008/1035	1017/943	1015/828	1022/787	CFM	400	CFM	400	CFM	993	1013	1028	1023	1049					
	152/176	208/200	273/214	341/196	413/194	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	142	197	261	335	416					
	993/1114	1008/1035	1017/943	1015/828	1022/787	CFM	450	CFM	450	CFM	993	1013	1028	1023	1049					
3 tons †	152/176	208/200	273/214	341/196	413/194	Watts	CFM/ton	Watts	CFM/ton	CFM/ton	142	197	261	335	416					

- † 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

TEM8A0B30V31DC 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 BAYHTR1504LUG	1/1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1517BRK Circuit 1 ^(a)	2/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	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	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

- 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
- 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**

About Trane and American Standard Heating and Air Conditioning

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