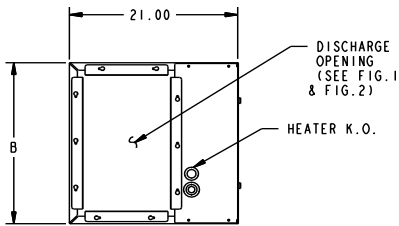
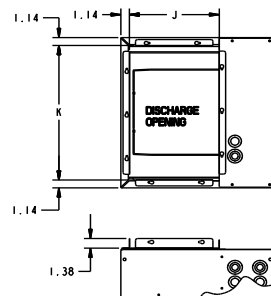
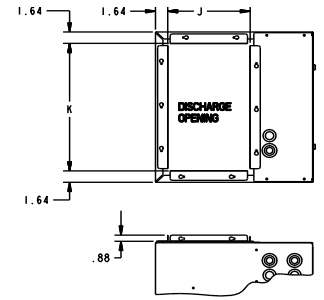
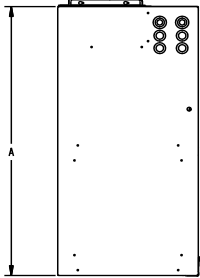


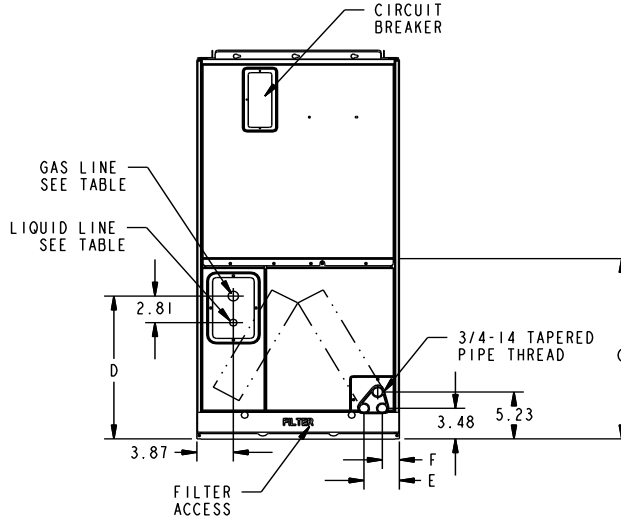
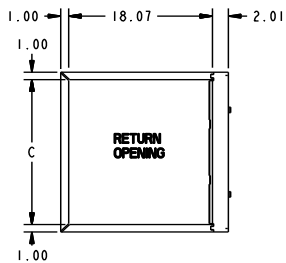
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# SUBMITTAL

## 1 1/2 - 3 Ton Convertible Air Handler 2TEE3F31A1000A, 4TEE3F31B1000B


**TOP VIEW**

**FIG. 1**

**FIG. 2**

 .88" X 1.38"  
DUCT FLANGES  
(SEE FIG. 1  
& FIG. 2)  
REVERSIBLE

**SIDE VIEW**

**AIRFLOW**  
↑

**VERTICAL UPFLOW**

**BOTTOM VIEW**

MODEL NO.	FIG. 1		FIG. 2	
	J	K	J	K
2TEE3F31A, 4TEE3F31B 2TEC3F18B, 24B, 30B, 36B 4TEC3F18B, 24B, 30B, 36B TWE030CA		19.22		18.22
2TEE3F37A, 4TEE3F37B 2TEC3F42B, 48B, 60B 4TEC3F42B, 48B, 60B TWE040CA, 50CA	12.02	21.22	11.02	20.22
2TEE3F40A, 49A, 65A 4TEE3F40B, 49B, 65B 2TEC3F55B 4TEC3F55B		23.72		22.72

MINIMUM UNIT CLEARANCE TABLE		
	TO COMBUSTIBLE MATERIAL (REQUIRED)	SERVICE CLEARANCE (RECOMMENDED)
SIDES	0"	2"
FRONT	0"	21"
BACK	0"	0"
INLET DUCT	0"	1"
OUTLET DUCT	1"	

\* 1" FOR THE FIRST 3 FT. OF OUTLET DUCT WHEN ELECTRIC HEATERS ARE INSTALLED EXCEPT MODELS BAYHTRI405, 1408, AND 1410 ARE APPROVED FOR 0" PLENUM AND DUCT CLEARANCE IN THE UPFLOW CONFIGURATION ONLY ON TWE-P MODELS.

MODEL NO.	FIG. 1		FIG. 2	
	J	K	J	K
2TEE3F31A 4TEE3F31B	12.02	19.22	11.02	18.22

MODEL NO.	A	B	C	D	E	F	G	Flow Control	R-22 Gas Line BRAZE	R-22 Liq. Line BRAZE	R-410A Gas Line BRAZE	R-410A Liq. Line BRAZE
2TEE3F31A 4TEE3F31B	43	21.50	19.50	15.66	3.62	1.89	N/A	TXV/NB	3/4	5/16	3/4	5/16

## PRODUCT SPECIFICATIONS

<b>MODEL</b>	<b>2TEE3F31A1000A</b> <b>4TEE3F31B1000B</b>	
<b>RATED VOLTS/PH/HZ.</b>	200-230/1/60	
<b>RATINGS ①</b>	See O.D. Specifications	
<b>INDOOR COIL — Type</b>	Plate Fin	
Rows — F.P.I.	3 - 14	
Face Area (sq. ft.)	3.21	
Tube Size (in.)	3/8 - Copper	
Refrigerant Control	TXVNB	
Drain Conn. Size (in.) ②	3/4 NPT	
<b>DUCT CONNECTIONS</b>	See Outline Drawing	
<b>INDOOR FAN — Type</b>	Centrifugal	
Diameter-Width (In.)	10 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	200-230/1/60	
F.L. Amps	4.3	
<b>FILTER</b>		
<b>Vertical Applications</b>		
Filter Furnished?	Yes	
Type Recommended	Throwaway	
No.-Size-Thickness	1 - 20 x 20 x 1 in.	
<b>Horizontal Applications</b>		
Filter Furnished?	No	
Recommended Size ③	See Note ③	
<b>REFRIGERANT</b>	R-22	R-410A
Ref. Line Connections	Brazed	Brazed
Coupling or Conn. Size — in. Gas	3/4	3/4
Coupling or Conn. Size — in. Liq.	5/16	5/16
<b>DIMENSIONS</b>	H x W x D	
Crated (In.)	44-1/2 x 24 x 23-1/2	
Uncrated	See Outline Drawing	
<b>WEIGHT</b>		
Shipping (Lbs.) / Net (Lbs)	134 / 118	



① These Air Handlers are A.R.I. certified with various Split System Air Conditioners and Heat Pumps (ARI STANDARD 210/240). Refer to the Split System Outdoor Unit Product Data Guides for performance data.

② 3/4" Male Plastic Pipe (Ref.: ASTM 1785-76)

③ Minimum filter size for horizontal applications will be based on airflow selection and will be calculated as follows:  
 Low Velocity Filter: Face area (Sq. Ft.) = CFM / 300  
 High Velocity Filter: Face area (Sq. Ft.) = CFM / 500

2/4TEE3F31 WIRING DATA (Indoor Blower Motor Powered from Heater Circuit 1)											
Heater Model No.	Number of Phase	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	-	-	-	-	5	15	-	-	-	5	15
BAYHTR1405 +++	1/1	4.80	16400	20	30	30	3.60	12300	17.3	27	30
BAYHTR1408 +++	1/1	7.68	26200	32	45	45	5.76	19700	27.7	40	40
BAYHTR1410 +++	1/1	9.60	32800	40	55	60	7.20	24600	34.6	49	50
BAYHTR3410 000	1/3	9.60	32800	34.6	43	45	7.20	24600	30	37	40
BAYHTR1415 BRK	2/1	15.36	52400	40/24	55*/30	60*/30	11.53	39300	34.6/20.8	49*/26	50*/30
BAYHTR3415 000	1/3	15.36	52400	38.2	52	60	11.53	39300	33.1	46	50
BAYHTR1419 BRK	2/1	19.2	65500	32/48	45*/60	45*/60	14.42	49200	27.7/41.6	40*/52	40*/60

NOTES:  
 \* Circuit 1/Circuit 2 (Minimum Circuit Ampacity for Circuit 1 includes Blower Motor Amps)  
 +++ = 000, BRK, PDC 000 = pigtails, BRK = contains circuit breakers, PDC = contains pull disconnect  
**IMPORTANT:** Any power supply and/or combination power supply, circuit or circuits must be wired and protected in accordance with local Electrical Codes.

SEE AIR FLOW RESISTANCE TABLE FOR PRESSURE LOSS WITH SUPPLEMENTARY HEATER.

**2TEE3F31A, 4TEE3F31B AIR HANDLER AIRFLOW (CFM) VS. EXTERNAL STATIC PRESSURE WITH FILTER**

OUTDOOR UNIT SIZE (TONS)	AIRFLOW SETTING	DIP SWITCH SETTING					EXTERNAL STATIC PRESSURE					
		SW 1	SW 2	SW 3	SW 4		0.1	0.2	0.3	0.5	0.7	0.9
1.5	LOW (350 CFM/TON)	ON	ON	OFF	ON	CFM watts	565 75	560 85	550 98	525 135	495 175	450 200
	NORMAL (400 CFM/TON)	ON	ON	OFF	OFF	CFM watts	640 90	640 110	640 130	615 155	570 180	545 200
	HIGH (450 CFM/TON)	ON	ON	ON	OFF	CFM watts	710 110	710 130	700 140	685 175	665 190	630 220
2	LOW (350 CFM/TON)	OFF	ON	OFF	ON	CFM watts	745 120	740 135	730 150	710 190	690 215	665 245
	NORMAL (400 CFM/TON)	OFF	ON	OFF	OFF	CFM watts	835 145	840 165	845 190	840 230	820 265	795 295
	HIGH (450 CFM/TON)	OFF	ON	ON	OFF	CFM watts	940 195	940 220	940 245	930 285	915 320	900 350
2.5	LOW (350 CFM/TON)	ON	OFF	OFF	ON	CFM watts	885 170	890 200	890 230	890 270	880 300	860 345
	NORMAL (400 CFM/TON)	ON	OFF	OFF	OFF	CFM watts	1020 235	1020 255	1020 275	1015 320	1010 370	995 425
	HIGH (450 CFM/TON)	ON	OFF	ON	OFF	CFM watts	1130 300	1130 335	1130 365	1130 420	1125 475	1115 505
3.0 **	LOW (350 CFM/TON)	OFF	OFF	OFF	ON	CFM watts	1060 270	1060 300	1060 320	1055 360	1045 405	1030 460
	NORMAL ** (400 CFM/TON)	OFF	OFF	OFF	OFF	CFM watts	1220 365	1220 400	1220 435	1220 485	1200 530	1030 550
	HIGH (450 CFM/TON)	OFF	OFF	ON	OFF	CFM watts	1370 510	1370 545	1370 575	1295 615	1200 600	1030 530

**NOTES:**

setting  
 re approximately 30% of listed value.  
 approximately 50% of maximum listed values for 19i and 80% of maximum listed values for 16i.  
 led.

**2TEE3F31A, 4TEE3F31B AIR HANDLER AIRFLOW WITH AUXILIARY HEAT (CFM)**

SWITCH SETTINGS	SELECTION	NOMINAL AIRFLOW
7-OFF 8-OFF	HIGH	1350 CFM
7-ON 8-OFF	MED-HIGH	1125 CFM
7-OFF 8-ON	MED-LOW	1000 CFM
7-ON 8-ON	LOW	700 CFM

**PRESSURE DROP FOR ELECTRIC HEATERS**

AIR FLOW CFM	NUMBER OF RACKS					AIR FLOW CFM	NUMBER OF RACKS				
	1	2	3	4	5		1	2	3	4	5
	AIR PRESSURE DROP INCHES W.G.						AIR PRESSURE DROP INCHES W.G.				
600	0.01	0.02	0.02			1400	0.07	0.08	0.10	0.11	0.13
700	0.01	0.02	0.02			1500	0.08	0.09	0.11	0.13	0.15
800	0.02	0.03	0.03	0.04		1600	0.09	0.10	0.12	0.15	0.17
900	0.03	0.03	0.04	0.05		1700	0.10	0.11	0.14	0.17	0.19
1000	0.04	0.04	0.05	0.06		1800	0.11	0.13	0.16	0.19	0.21
1100	0.04	0.05	0.06	0.07	0.08	1900	0.13	0.15	0.18	0.21	0.23
1200	0.05	0.06	0.07	0.08	0.09	2000	0.14	0.17	0.20	0.23	0.26
1300	0.06	0.07	0.08	0.09	0.11						

HEATER RACKS	
HEATER MODEL NO.	NO. OF RACKS
BAYHTR1405	1
BAYHTR1408	2
BAYHTR1/3410	2
BAYHTR1/3415	3
BAYHTR1419	4
BAYHTR1425	5

**Notes:**

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.

MINIMUM AIRFLOW WITH AUXILIARY HEAT		HEATER MODEL NUMBER BAYHTR----					
		1405 4.80kw	1408 7.68kw	1410 3410 9.60kw	1415 3415 15.36kw	1419 19.20kw	1425 24.96kw
MODEL NUMBER	APPLICATION						
NUMBER OF HEATER RACKS		1	2	2	3	4	5
2TEE3F31A 4TEE3F31B	A/C or Elec. Furnace	700	700	700	700	1000	NA
	Heat Pump	1000	1000	1000	1125	1350	NA
*For upflow position only, minimum setting is 1200							

## Mechanical Specifications

**General** — Blower coil units shall be completely factory assembled including coil, condensate drain pan, fan, motor, filters and controls in an insulated casing that can be applied in horizontal or vertical configuration. The “F” model indicates an “Air-Tite” model with 4.2 “R” value insulation and additional sealing systems.

This new line of 2/4TEE3F Air handlers provides exclusive compact size combined with simple 6-Way convertibility in sizes up to 5 Tons. The unit ships in the right hand horizontal configuration and converts to vertical upflow just by standing the unit on end. No tools required. Simple coil rotation provides downflow and horizontal left applications.

The 6-Way convertibility provides you inventory benefits and service/installation flexibility. The simple conversion provides opposite side access for installation and service.

**Casing** — Units shall have a rugged sheet metal and steel frame construction and shall be painted with an enamel finish. Casing shall be insulated and knockouts for electrical power and control wiring.

**Refrigerant Circuits** — The 2/4TEE3F units have a single refrigerant circuit. The refrigerant circuit shall be controlled by a factory installed non-bleed thermal expansion valve.

**Coil** — Aluminum fin surface shall be mechanically bonded to 3/8 inch OD copper tubing. Coils are factory pressure and leak tested.

**Fan** — Forward curved, dynamically balanced and statically balanced with variable speed direct drive shall be standard, fan motor bearing shall be permanently lubricated.

**Controls** — Low voltage terminal connections, fan contactor, and plug in module for accessory electric heat control shall be included. 2/4TEE3F models also include check valves.

**Filters** — Filters shall be included as standard, One inch low velocity semi-permanent type (except 5 ton - washable filter).

### Accessories

**Electric Heaters** — Shall be available in a wide range of capacities and voltages with various staging options, and plug-in control wiring. Heaters shall fit inside the internal compartment.

