

**T2HB, T3HB, AND T4HB TOP DISCHARGE  
DUCTLESS SPLIT SYSTEM MULTI-ZONE  
CONDENSING UNIT**

P/N# 240006735 Rev. 2.0 [10/08]

- Cabinet Color - Light gray & black
- Concealed Service Valves
- Easy access service port connections at 45° from valve body.
- Common suction pressure access point.



T2HB, T3HB,  
and T4HB

**FULL RANGE HEAT PUMP**

Nominal Circuit Capacities:  
9,000, 12,000, 18,000, and 24,000 Btuh

**DESCRIPTION**

EMI offers the finest 13 SEER multi-zone Heat Pump unit in the ductless split market. The Top Discharge multi-zone Heat Pump Unit allows the installation of up to four circuits from a single outside location when space or aesthetic requirements limit the use of locations. Each zone is independent and no mixing of refrigerant will occur.

*All EMI products are subject to ongoing development programs and design and specifications may change without notice.*

**STANDARD FEATURES**

▲▼ **Compressors** - Hermetically sealed high efficiency rotary, reciprocating, or scroll types, depending on zone capacities. Motors are PSC type with inherent overload protection. Compressors are installed on resilient mountings.

▲▼ **Capacities/Efficiencies** - EMI's Top Discharge systems meet or exceed 13.0 SEER efficiency requirements and 7.7 HSPF.

▲▼ **Cabinet** - Fabricated of G90U galvaneal steel, finished with corrosion inhibiting, polyester, powder coated paint (2,000 hr. salt spray tested)

- Fan Guard - Black vinyl coated

▲▼ **Refrigeration Circuit** - The T2HB, T3HB and T4HB are delivered with pre-charged refrigerant (R-22) for the condenser coils and evaporators. Charging of the field installed piping is required. Unit refrigeration valves are solid brass, for sweat connection. Solid core filter driers are factory installed on all models.

▲▼ **Condenser Coil** - The condenser coils are tested to 600 psig and are constructed of seamless copper tubing, with enhanced aluminum fins. The tubes are mechanically expanded for secure bonding to fin shoulder.

▲▼ **Condenser Fan/Motor** - The condenser fan is a large diameter, high efficiency, four blade aluminum propeller type, directly connected to the totally enclosed, PSC motor. The motor is fitted with internal thermal protection. These multi-zone units are a drawthrough air flow design.

▲▼ **Controls/Components:**  
Controls and Components installed at the factory include:

- Compressor and fan motor contactor
- Capacitor
- Crankcase Heaters (9,000 & 12,000 only)
- Hard Start Assist
- Loss of charge switches (9,000 & 12,000)
- Low Voltage (24V) connections
- High pressure control (18,000 & 24,000)
- Large capacity suction accumulator (9,000, 12,000 & 18,000)
- Factory installed solid core filter driers
- Common suction pressure access point

▲▼ **Refrigerant Run Options** - The standard system will support refrigerant runs to the inside unit of up to 100 equivalent feet of interconnect with 35 feet of lift.

▲▼ **Operating Range:** A/C Range 32°F (0°C) to 115°F (46°C), H/P Range 0°F (-18°C) to 75°F (24°C).

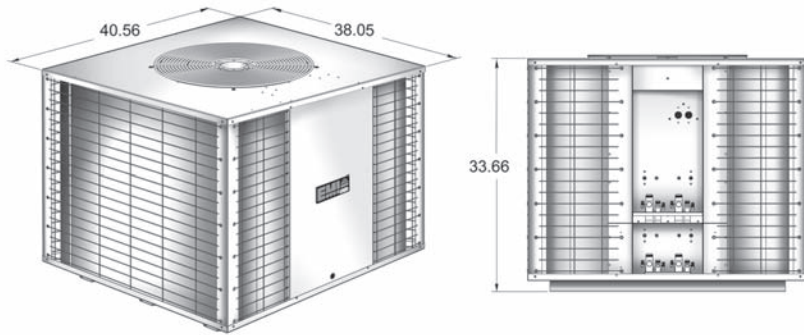
**SYSTEM OPTIONS**

- Sea Coast coated / Copper-Copper coils
- Wind Baffles - Louvers

**SPECIFICATIONS AND PERFORMANCE**

# TOP DISCHARGE MULTI-ZONE DIMENSIONS AND SPECIFICATIONS

**NOTE:** Due to EMI's ongoing development programs, design and specifications may change without notice.



INTERCONNECTING TUBING SPECS T2HB, T3HB, & T4HB models:				
Nominal Circuit Capacity	Maximum Length	Maximum Lift	Liquid Line OD	Suction Line OD
9,000	100'	35'	1/4"	1/2"
12,000	100'	35'	1/4"	1/2"
18,000	100'	35'	3/8"	5/8"*
24,000	100'	35'	3/8"	3/4"

\* CAHB24, UNHA24, WLHA24 Suction Connection size is 3/4" O.D. and must bush down to 5/8" for 18,000 Btuh circuits at the indoor unit.

LINE SET, SOUND & WEIGHT DATA				
Model	Line Set Diameters		Sound	Weight
	Liquid	Suction	dBA	Lbs.
T2HB8800	3/8"	5/8"	70	325
T2HB8400	3/8"	5/8" & 3/4"	70	325
T2HB4400	3/8"	3/4"	70	325
T2HB2400	1/4" & 3/8"	1/2" & 3/4"	70	325
T2HB9800	1/4" & 3/8"	1/2" & 5/8"	70	325
T3HB9990	1/4"	1/2"	70	325
T3HB9920	1/4"	1/2"	70	325
T3HB9980	1/4" & 3/8"	1/2" & 5/8"	70	325
T3HB9940	1/4" & 3/8"	1/2" & 3/4"	70	325
T3HB9220	1/4"	1/2"	70	325
T3HB9280	1/4" & 3/8"	1/2" & 5/8"	70	325
T3HB9240	1/4" & 3/8"	1/2" & 3/4"	70	325
T3HB2280	1/4" & 3/8"	1/2" & 5/8"	70	325
T3HB2240	1/4" & 3/8"	1/2" & 3/4"	70	325
T3HB2220	1/4"	1/2"	70	325
T4HB9999	1/4"	1/2"	70	325
T4HB9992	1/4"	1/2"	70	325
T4HB9922	1/4"	1/2"	70	325
T4HB9222	1/4"	1/2"	70	325
T4HB2222	1/4"	1/2"	70	325

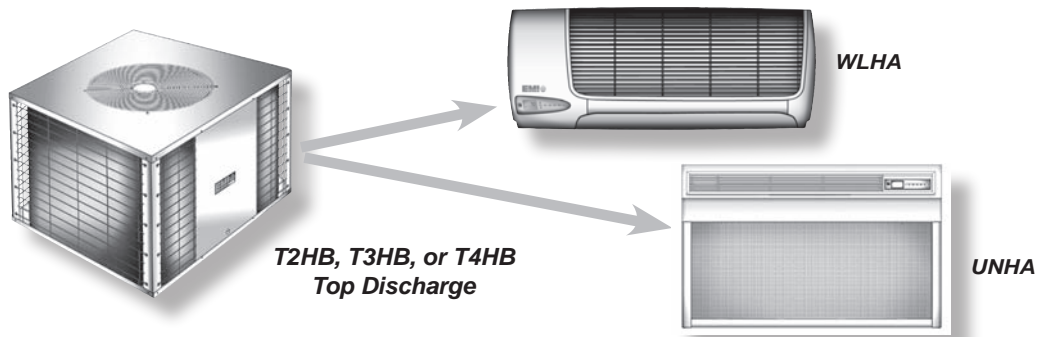
ELECTRICAL SPECIFICATIONS • T2HB, T3HB, AND T4HB - 208/230V - 60 HERTZ 1 - PHASE														
CAPACITY	FAN MTR		COMPRESSOR								TOTAL AMPS	MCA	HACR BRKR	MIN VOLT
	AMPS	HP	CIRCUIT #1		CIRCUIT #2		CIRCUIT #3		CIRCUIT #4					
			RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA				
<b>T2HB</b>														
8800	1.8	0.33	5.4	36	5.4	36	-	-	-	-	12.6	14.0	15	197
8400	1.8	0.33	5.4	36	8.8	54	-	-	-	-	16.0	18.2	25	197
4400	1.8	0.33	8.8	54	8.8	54	-	-	-	-	19.4	21.6	30	197
2400	1.8	0.33	4.3	27	8.8	54	-	-	-	-	14.9	17.1	25	197
9800	1.8	0.33	3.4	23	5.4	36	-	-	-	-	10.6	12.0	15	197
<b>T3HB</b>														
9990	1.8	0.33	3.4	23	3.4	23	3.4	23	-	-	12.0	13.0	15	197
9920	1.8	0.33	3.4	23	3.4	23	4.3	27	-	-	12.9	14	15	197
9980	1.8	0.33	3.4	23	3.4	23	5.4	36	-	-	14	15.4	20	197
9940	1.8	0.33	3.4	23	3.4	23	8.8	54	-	-	17.4	19.6	25	197
9220	1.8	0.33	3.4	23	4.3	27	4.3	27	-	-	13.8	14.9	15	197
9280	1.8	0.33	3.4	23	4.3	27	5.4	36	-	-	14.9	16.3	20	197
9240	1.8	0.33	3.4	23	4.3	27	8.8	54	-	-	18.3	20.5	25	197
2280	1.8	0.33	4.3	27	4.3	27	5.4	36	-	-	15.8	17.2	20	197
2240	1.8	0.33	4.3	27	4.3	27	8.8	54	-	-	19.2	21.4	30	197
2220	1.8	0.33	4.3	27	4.3	27	4.3	27	-	-	14.7	15.8	20	197
<b>T4HB</b>														
9999	1.8	0.33	3.4	23	3.4	23	3.4	23	3.4	23	15.4	16.3	20	197
9992	1.8	0.33	3.4	23	3.4	23	3.4	23	4.3	27	16.3	17.4	20	197
9922	1.8	0.33	3.4	23	3.4	23	4.3	27	4.3	27	17.2	18.3	20	197
9222	1.8	0.33	3.4	23	4.3	27	4.3	27	4.3	27	18.1	19.2	20	197
2222	1.8	0.33	4.3	27	4.3	27	4.3	27	4.3	27	19	20.1	25	197

Circuit Designators: 9 = 9000 Btuh 2 = 12000 Btuh 8 = 18000 Btuh 4 = 24000 Btuh (ex. - 8400 consists of one 18000 Btuh compressor and one 24000 Btuh compressor)



## TOP DISCHARGE MULTI-ZONE SYSTEM MATCHES

**NOTE:** Due to EMI's ongoing development programs, design and specifications may change without notice.



**WLHA / T2HB, T3HB, OR T4HB SYSTEM  
PERFORMANCE DATA**

Model		Cooling				Heating		
Outdoor	Indoor Air Handler	Btuh	SEER	SHR	EER	Btuh	HSPF	COP
T2HB8800	(2) WLHA24	36000	13	0.72	12.1	26800	7.7	3.3
T2HB8400	(2) WLHA24	42000	13	0.68	11.9	32000	7.7	3.2
T2HB4400	(2) WLHA24	48000	13	0.65	11.8	37400	7.7	3.2
T2HB2400	(1) WLHA12 + (1) WLHA24	35000	13	0.67	11.7	27800	7.7	3.2
T2HB9800	(1) WLHA09 + (1) WLHA24	27200	13	0.74	12.0	20800	7.7	3.3
T3HB9990	(3) WLHA09	27800	13	0.80	11.9	22200	7.7	3.3
T3HB9920	(2) WLHA09 + (1) WLHA12	29800	13	0.76	11.8	24000	7.7	3.3
T3HB9980	(2) WLHA09 + (1) WLHA24	36400	13	0.76	12.0	28200	7.7	3.3
T3HB9940	(2) WLHA09 + (1) WLHA24	42500	13	0.71	11.8	33400	7.7	3.2
T3HB9220	(1) WLHA09 + (2) WLHA12	31800	13	0.74	11.7	25800	7.7	3.3
T3HB9280	(1) WLHA09 + (1) WLHA12 + (1) WLHA24	38500	13	0.73	11.9	30000	7.7	3.3
T3HB9240	(1) WLHA09 + (1) WLHA12 + (1) WLHA24	44500	13	0.69	11.7	35200	7.7	3.2
T3HB2280	(2) WLHA12 + (1) WLHA24	40500	13	0.76	11.8	31800	7.7	3.3
T3HB2240	(2) WLHA12 + (1) WLHA24	46500	13	0.68	11.7	37000	7.7	3.2
T3HB2220	(3) WLHA12	34000	13	0.72	11.7	27600	7.7	3.3
T4HB9999	(4) WLHA09	37200	13	0.8	11.9	29600	7.7	3.3
T4HB9992	(3) WLHA09 + (1) WLHA12	39000	13	0.77	11.8	31400	7.7	3.3
T4HB9922	(2) WLHA09 + (2) WLHA12	41000	13	0.76	11.8	33200	7.7	3.3
T4HB9222	(1) WLHA09 + (3) WLHA12	43000	13	0.72	11.6	35000	7.7	3.3
T4HB2222	(4) WLHA12	45000	13	0.72	11.7	36800	7.7	3.3

Circuit Designators: 9 = 9000 Btuh 2 = 12000 Btuh 8 = 18000 Btuh 4 = 24000 Btuh  
(ex. - 8400 consists of one 18000 Btuh compressor and one 24000 Btuh compressor)

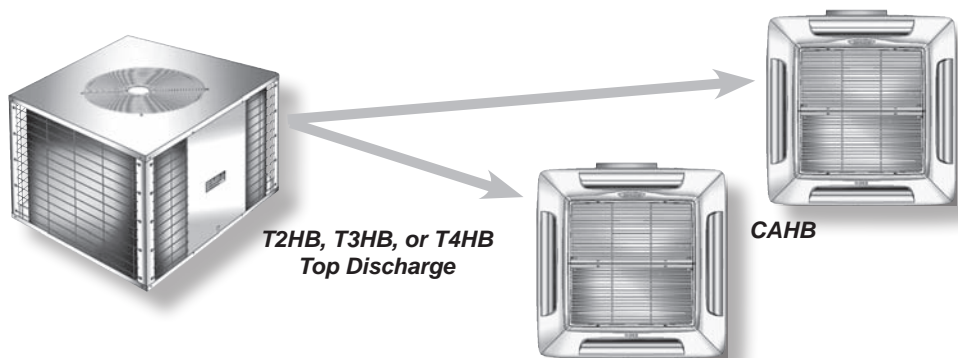
**UNHA / T2HB, T3HB, OR T4HB SYSTEM  
PERFORMANCE DATA**

Model		Cooling				Heating		
Outdoor	Indoor Air Handler	Btuh	SEER	SHR	EER	Btuh	HSPF	COP
T2HB8800	(2) UNHA24	36000	13	0.72	12.1	26800	7.7	3.3
T2HB8400	(2) UNHA24	42000	13	0.68	11.9	32000	7.7	3.2
T2HB4400	(2) UNHA24	48000	13	0.65	11.8	37400	7.7	3.2
T2HB2400	(1) UNHA12 + (1) UNHA24	35000	13	0.67	11.7	27800	7.7	3.2
T2HB9800	(1) UNHA09 + (1) UNHA24	27200	13	0.74	12.0	20800	7.7	3.3
T3HB9990	(3) UNHA09	27800	13	0.80	11.9	22200	7.7	3.3
T3HB9920	(2) UNHA09 + (1) UNHA12	29800	13	0.76	11.8	24000	7.7	3.3
T3HB9980	(2) UNHA09 + (1) UNHA24	36400	13	0.76	12.0	28200	7.7	3.3
T3HB9940	(2) UNHA09 + (1) UNHA24	42500	13	0.71	11.8	33400	7.7	3.2
T3HB9220	(1) UNHA09 + (2) UNHA12	31800	13	0.74	11.7	25800	7.7	3.3
T3HB9280	(1) UNHA09 + (1) UNHA12 + (1) UNHA24	38500	13	0.73	11.9	30000	7.7	3.3
T3HB9240	(1) UNHA09 + (1) UNHA12 + (1) UNHA24	44500	13	0.69	11.7	35200	7.7	3.2
T3HB2280	(2) UNHA12 + (1) UNHA24	40500	13	0.76	11.8	31800	7.7	3.3
T3HB2240	(2) UNHA12 + (1) UNHA24	46500	13	0.68	12.0	37000	7.7	3.2
T3HB2220	(3) UNHA12	34000	13	0.72	11.7	27600	7.7	3.3
T4HB9999	(4) UNHA09	37200	13	0.8	11.9	29600	7.7	3.3
T4HB9992	(3) UNHA09 + (1) UNHA12	39000	13	0.77	11.8	31400	7.7	3.3
T4HB9922	(2) UNHA09 + (2) UNHA12	41000	13	0.76	11.8	33200	7.7	3.3
T4HB9222	(1) UNHA09 + (3) UNHA12	43000	13	0.72	11.6	35000	7.7	3.3
T4HB2222	(4) UNHA12	45000	13	0.72	11.7	36800	7.7	3.3

Circuit Designators: 9 = 9000 Btuh 2 = 12000 Btuh 8 = 18000 Btuh 4 = 24000 Btuh  
(ex. - 8400 consists of one 18000 Btuh compressor and one 24000 Btuh compressor)

## TOP DISCHARGE MULTI-ZONE SYSTEM MATCHES

**NOTE:** Due to EMI's ongoing development programs, design and specifications may change without notice.



CAHB / T2H, T3H, OR T4H SYSTEM PERFORMANCE DATA							
Model		Cooling				Heating	
Outdoor	Indoor Air Handler	Btuh	SEER	SHR	EER	Btuh	COP
T2HB8800	(2) CAHB24	36000	13	0.75	12.3	24400	3.1
T2HB8400	(2) CAHB24	42000	13	0.71	12.1	30600	3.1
T2HB4400	(2) CAHB24	48000	13	0.67	11.7	36800	3.1
T2HB2400	(1) CAHB12 + (1) CAHB24	35000	13	0.69	11.5	27600	3.1
T2HB9800	(1) CAHB12 + (1) CAHB24	27200	13	0.76	11.9	19400	3.1
T3HB9990	(3) CAHB12	27800	13	0.80	11.6	21800	3.2
T3HB9920	(3) CAHB12	29800	13	0.78	11.4	23800	3.1
T3HB9980	(2) CAHB12 + (1) CAHB24	36400	13	0.77	11.9	26800	3.1
T3HB9940	(2) CAHB12 + (1) CAHB24	42500	13	0.72	11.6	33000	3.1
T3HB9220	(3) CAHB12	31800	13	0.76	11.3	25600	3.1
T3HB9280	(2) CAHB12 + (1) CAHB24	38500	13	0.75	11.8	28600	3.1
T3HB9240	(2) CAHB12 + (1) CAHB24	44500	13	0.71	11.8	34800	3.1
T3HB2280	(2) CAHB12 + (1) CAHB24	40500	13	0.75	11.7	30400	3.1
T3HB2240	(2) CAHB12 + (1) CAHB24	46500	13	0.71	11.5	36800	3.1
T3HB2220	(3) CAHB12	34000	13	0.75	11.3	27600	3.1
T4HB9999	(4) CAHB12	37200	13	0.8	11.6	29200	3.2
T4HB9992	(4) CAHB12	39000	13	0.78	11.5	31000	3.1
T4HB9922	(4) CAHB12	41000	13	0.77	11.4	33000	3.1
T4HB9222	(4) CAHB12	43000	13	0.75	11.2	34800	3.1
T4HB2222	(4) CAHB12	45000	13	0.75	11.3	36800	3.1

Circuit Designators: 9 = 9000 Btuh 2 = 12000 Btuh 8 = 18000 Btuh 4 = 24000 Btuh  
(ex. - 8400 consists of one 18000 Btuh compressor and one 24000 Btuh compressor)