



UNH-T2H-T3H-T4H
Universal Air Handler
Multi-Zone Heat Pump
 Rev. C [01/09]

JOB NAME: _____ LOCATION: _____
 PURCHASER: _____
 ENGINEER: _____
 SUBMITTED TO: _____ FOR: REFERENCE [] APPROVAL [] CONSTRUCTION []
 SUBMITTED BY: _____ DATE: _____
 UNIT DESIGNATION: SCHEDULE #: _____ MODEL #: _____

Manufacturer reserves the right to change these specifications at any time without incurring obligation.



PERFORMANCE: _____

Performance certified in accordance with ARI 210/240

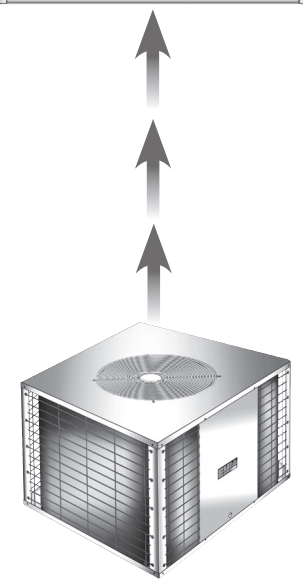
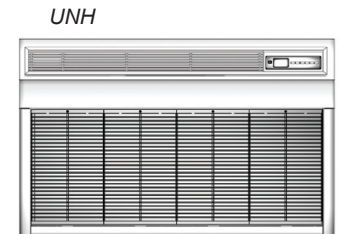
COOLING

Indoor design conditions: 80°F Dry Bulb / 67°F Wet Bulb
 Outdoor design conditions: 95°F

HEATING

Indoor design conditions: 70°F Dry Bulb / 57°F Wet Bulb
 Outdoor design conditions (High): 47°F Dry Bulb / 43°F Wet Bulb

EMI ENGINEERING SUBMITTAL



Top Discharge Condensers

UNH / T2H, T3H, OR T4H SYSTEM CAPACITIES								
Model		Cooling				Heating		
Outdoor	Indoor Air Handler	Btuh (kW)	SEER	SHR	EER	Btuh (kW)	HSPF	COP
T2H8800	(2) UNH24	36000 (10.5)	13	0.72	12.1	26800 (7.6)	7.7	3.3
T2H8400	(2) UNH24	42000 (12.3)	13	0.68	11.9	32000 (9.4)	7.7	3.2
T2H4400	(2) UNH24	48000 (14.0)	13	0.65	11.8	37400 (11.0)	7.7	3.2
T2H2400	(1) UNH12 (1) UNH24	35000 (10.2)	13	0.67	11.0	27800 (8.1)	7.7	3.2
T2H9800	(1) UNH09 (1) UNH24	27200 (8.0)	13	0.74	12.0	20800 (6.1)	7.7	3.3
T3H9990	(3) UNH09	27800 (8.1)	13	0.80	11.9	22200 (6.5)	7.7	3.3
T3H9920	(2) UNH09 (1) UNH12	29800 (8.7)	13	0.76	11.0	24000 (7.0)	7.7	3.3
T3H9980	(2) UNH09 (1) UNH24	36400 (10.7)	13	0.76	12.0	28200 (8.3)	7.7	3.3
T3H9940	(2) UNH09 (1) UNH24	42500 (12.4)	13	0.71	11.8	33400 (9.8)	7.7	3.2
T3H9220	(1) UNH09 (2) UNH12	31800 (9.3)	13	0.74	11.0	25800 (7.6)	7.7	3.3
T3H9280	(1) UNH09 (1) UNH12 (1) UNH24	38500 (11.3)	13	0.73	11.9	30000 (8.8)	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)



Chart continued next page

EMI ENGINEERING SUBMITTAL UNH-T2H-T3H-T4H

(Continued) **UNH / T2H, T3H, OR T4H SYSTEM CAPACITIES**

Model		Cooling				Heating		
Outdoor	Indoor Air Handler	Btuh (kW)	SEER	SHR	EER	Btuh (kW)	HSPF	COP
T3H9240	(1) UNH09, (1) UNH12, (1) UNH24	44500 (13.0)	13	0.69	11.7	35200 (10.3)	7.7	3.2
T3H2280	(2) UNH12, (1) UNH24	40500 (11.9)	13	0.76	11.8	31800 (9.3)	7.7	3.3
T3H2240	(2) UNH12, (1) UNH24	46500 (13.6)	13	0.68	11.7	37000 (10.8)	7.7	3.2
T3H2220	(3) UNH12	34000 (10.0)	13	0.72	11.0	27600 (8.1)	7.7	3.3
T4H9999	(4) UNH09	37200 (11.0)	13	0.8	11.9	29600 (8.7)	7.7	3.3
T4H9992	(3) UNH09, (1) UNH12	39000 (11.4)	13	0.77	11.8	31400 (9.2)	7.7	3.3
T4H9922	(2) UNH09, (2) UNH12	41000 (12.0)	13	0.76	11.8	33200 (9.7)	7.7	3.3
T4H9222	(1) UNH09, (3) UNH12	43000 (12.6)	13	0.72	11.6	35000 (10.3)	7.7	3.3
T4H2222	(4) UNH12	45000 (13.2)	13	0.72	11.7	36800 (10.8)	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)

UNH / T2H, T3H, OR T4H CIRCUIT PERFORMANCE DATA

Model		Circuit	Cooling Btuh (kW)	Heating Btuh (kW)	Model		Circuit	Cooling Btuh (kW)	Heating Btuh (kW)
Outdoor	Indoor Air Handler				Outdoor	Indoor Air Handler			
T2H8800	(2) UNH24	1	18,000 (5.3)	13,400 (3.9)	T3H2280	(2) UNH12 (1) UNH24	1	11,300 (3.3)	9,200 (2.7)
		2	18,000 (5.3)	13,400 (3.9)			2	11,300 (3.3)	9,200 (2.7)
3	17,900 (5.2)	13,400 (3.9)	3	17,900 (5.2)			13,400 (3.9)		
T2H8400	(2) UNH24	1	18,000 (5.3)	13,400 (3.9)	T3H2240	(2) UNH12 (1) UNH24	1	11,300 (3.3)	9,200 (2.7)
		2	24,000 (7.0)	18,700 (5.5)			2	11,300 (3.3)	9,200 (2.7)
3	23,900 (7.0)	18,700 (5.5)	3	23,900 (7.0)			18,700 (5.5)		
T2H4400	(2) UNH24	1	24,000 (7.0)	18,700 (5.5)	T3H2220	(3) UNH12	1	11,300 (3.3)	9,200 (2.7)
		2	24,000 (7.0)	18,700 (5.5)			2	11,300 (3.3)	9,200 (2.7)
3	11,300 (3.3)	9,200 (2.7)	3	11,300 (3.3)			9,200 (2.7)		
T2H2400	(1) UNH12 (1) UNH24	1	11,000 (3.2)	9,200 (2.7)	T4H9999	(4) UNH09	1	9,300 (2.7)	7,400 (2.2)
		2	24,000 (7.0)	18,700 (5.5)			2	9,300 (2.7)	7,400 (2.2)
T2H9800	(1) UNH09 (1) UNH24	1	9,200 (2.7)	7,400 (2.2)			3	9,300 (2.7)	7,400 (2.2)
		2	18,000 (5.3)	13,400 (3.9)			4	9,300 (2.7)	7,400 (2.2)
T3H9990	(3) UNH09	1	9,200 (2.7)	7,400 (2.2)	T4H9992	(3) UNH09 (1) UNH12	1	9,300 (2.7)	7,400 (2.2)
		2	9,200 (2.7)	7,400 (2.2)			2	9,300 (2.7)	7,400 (2.2)
		3	9,200 (2.7)	7,400 (2.2)			3	9,300 (2.7)	7,400 (2.2)
4	11,200 (3.3)	9,200 (2.2)							
T3H9920	(2) UNH09 (1) UNH12	1	9,200 (2.7)	7,400 (2.2)	T4H9922	(2) UNH09 (2) UNH12	1	9,300 (2.7)	7,400 (2.2)
		2	9,200 (2.7)	7,400 (2.2)			2	9,300 (2.7)	7,400 (2.2)
		3	11,300 (3.3)	9,200 (2.7)			3	11,200 (3.3)	9,200 (2.7)
4	11,200 (3.3)	9,200 (2.7)							
T3H9980	(2) UNH09 (1) UNH24	1	9,200 (2.7)	7,400 (2.2)	T4H9222	(1) UNH09 (3) UNH12	1	9,300 (2.7)	7,400 (2.2)
		2	9,200 (2.7)	7,400 (2.2)			2	11,200 (3.3)	9,200 (2.7)
		3	17,900 (5.2)	13,400 (3.9)			3	11,200 (3.3)	9,200 (2.7)
4	11,200 (3.3)	9,200 (2.7)							
T3H9940	(2) UNH09 (1) UNH24	1	9,200 (2.7)	7,400 (2.2)	T4H2222	(4) UNH12	1	11,200 (3.3)	9,200 (2.7)
		2	9,200 (2.7)	7,400 (2.2)			2	11,200 (3.3)	9,200 (2.7)
		3	23,900 (7.0)	18,700 (5.5)			3	11,200 (3.3)	9,200 (2.7)
4	11,200 (3.3)	9,200 (2.7)							
T3H9220	(1) UNH09 (2) UNH12	1	9,200 (2.7)	7,400 (2.2)			4	11,200 (3.3)	9,200 (2.7)
		2	11,300 (3.3)	9,200 (2.7)					
		3	11,300 (3.3)	9,200 (2.7)					
T3H9280	(1) UNH09 (1) UNH12 (1) UNH24	1	9,200 (2.7)	7,400 (2.2)					
		2	11,300 (3.3)	9,200 (2.7)					
		3	17,900 (5.2)	13,400 (3.9)					
T3H9240	(1) UNH09 (1) UNH12 (1) UNH24	1	9,200 (2.7)	7,400 (2.2)					
		2	11,300 (3.3)	9,200 (2.7)					
		3	23,900 (7.0)	18,700 (5.5)					

EMI ENGINEERING SUBMITTAL UNH-T2H-T3H-T4H

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[▲] **STANDARD FEATURES:**

INDOOR UNIT:

- Ceiling-Suspended or Floor Console mounted
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Indoor Coil
- Unit-mounted, Infrared compatible control package, configurable to either unit mount or 24 Volt wall thermostat
- Control programming stored in non-volatile memory (*unit will restart following power failure*)
- Indoor coil freeze protection
- Anti-short cycle compressor protection
- Fan purge
- Dry mode for humidity control (*requires electric heat*)
- Factory-installed condensate pan overflow protection
- Factory-supplied molex-type connector for condensate pump power and control connections
- 24-7 programming
- One year Limited Parts Warranty

OUTDOOR UNIT:

- Top Condenser Air Discharge Unit
- Independent Circuits, up to four circuits
- Standard Operating Low Ambient in Cooling 32 °F (0 °C)
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Outdoor Coil
- R-22 Refrigerant
- Factory installed Hard Start Assist
- Suction Accumulator (9,000, 12,000, 18,000 Btuh circuits only)
- Solid Core Filter Drier
- Thermostatically controlled Compressor Crankcase Heater (9,000, 12,000, Btuh circuits only)
- High pressure control (18,000 and 24,000 Btuh zones)
- Coated Wire Grille Condenser Coil Protection and Fan Guard
- Five years Limited Compressor Warranty, One year Limited Parts Warranty

Please use check-box to select Options and Accessories.

[▲] **FACTORY INSTALLED OPTIONS:**

INDOOR UNIT

Power Connection:

- 115-1-60
- 208/230-1-60

Electric Heat:

- None
- 0.75 / 3.0 kW (115/230 Volt)
- 1.25 / 5.0 kW (115/230 Volt) for UNH24 only

OUTDOOR UNIT

Power Connection:

- 208/230-1-60

Condenser Coil:

- Copper Tube/ Copper Fin
- Copper Tube/ Post-Coat Aluminum Fin

[▲] **FIELD INSTALLED ACCESSORIES:**

INDOOR UNIT

Condensate Pump:

- 48" (1.2 m) Lift
- 144" (3.7 m) Lift
- Floor Mount Trim Kit** (*Required for Floor Mount with Condensate Pump accessory*)
- 24 Volt Wall Thermostat**
- Infrared Hand-held Controller**
- Metal Return Air Grille**

OUTDOOR UNIT

- Wind Baffle/Hail Guard, Architectural Louver Kit**

Refrigerant Line Sets

- 10'
- 25'
- 50'

EMI ENGINEERING SUBMITTAL UNH-T2H-T3H-T4H

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ELECTRICAL SPECIFICATIONS

Indoor Unit	V-Ph-Hz	Voltage		Indoor Fan Motor		Heater		Unit FLA	MCA	MOCP
		Min	Max	RLA	HP	kW	Amps			
UNH09 UNH12	115-1-60	104	126	0.64	0.02	-	-	.64	0.8	15
						0.75	6.50	7.14	8.9	15
	208/230-1-60	197	240	0.34	0.02	-	-	0.34	0.4	15
						3.00	13.04	13.38	16.7	20
UNH24	115-1-60	104	126	1.20	0.08	-	-	1.20	1.5	15
						0.75	6.52	7.72	9.7	15
						1.25	10.90	12.10	15.1	20
	208/230-1-60	197	240	0.56	0.07	-	-	0.56	0.7	15
						3.00	13.04	13.60	17.0	20
						5.00	21.74	22.30	27.9	30

Outdoor Unit	Power Supply V-1-60			Control* V-1-60	Compressor			Outdoor Fan Motor			Unit FLA	MCA	MOCP
	Volts	Min	Max		Qty	RLA	LRA	Qty	FLA	Hp			
T2H8800	208/230	197	240	24	2	5.4	36.0	1	1.8	0.33	12.6	14.0	15
T2H8400	208/230	197	240	24	1	5.4	36.0	1	1.8	0.33	16.0	18.2	25
					1	8.8	54.0						
T2H4400	208/230	197	240	24	2	8.8	54.0	1	1.8	0.33	19.4	21.6	30
T2H2400	208/230	197	240	24	1	4.3	27.0	1	1.8	0.33	14.9	17.1	25
					1	8.8	54.0						
T2H9800	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	10.6	12.0	15
					1	5.4	36.0						
T3H9990	208/230	197	240	24	3	3.4	23.0	1	1.8	0.33	12.0	12.9	15
T3H9920	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	12.9	14.0	15
					1	4.3	27.0						
T3H9980	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	14.0	15.4	20
					1	5.4	36.0						
T3H9940	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	17.4	19.6	25
					1	8.8	54.0						
T3H9220	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	13.8	14.9	15
					2	4.3	27.0						
T3H9280	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	14.9	16.3	20
					1	4.3	27.0						
					1	5.4	36.0						
T3H9240	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	18.3	20.5	25
					1	4.3	27.0						
					1	8.8	54.0						
T3H2280	208/230	197	240	24	2	4.3	27.0	1	1.8	0.33	15.8	17.2	20
					1	5.4	36.0						

Note: * - Control Voltage is supplied from the indoor unit. No separate supply required.

EMI ENGINEERING SUBMITTAL UNH-T2H-T3H-T4H

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ELECTRICAL SPECIFICATIONS *Continued*

Outdoor Unit	Power Supply V-1-60			Control* V-1-60	Compressor			Outdoor Fan Motor			Unit FLA	MCA	MOCP
	Volts	Min	Max		Qty	RLA	LRA	Qty	FLA	Hp			
T3H2240	208/230	197	240	24	2	4.3	27.0	1	1.8	0.33	19.2	21.4	30
					1	8.8	54.0						
T3H2220	208/230	197	240	24	3	4.3	27.0	1	1.8	0.33	14.7	15.8	20
T4H9999	208/230	197	240	24	4	3.4	23.0	1	1.8	0.33	15.4	16.3	20
T4H9992	208/230	197	240	24	3	3.4	23.0	1	1.8	0.33	16.3	17.4	20
					1	4.3	27.0						
T4H9922	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	17.2	18.3	20
					2	4.3	27.0						
T4H9222	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	18.1	19.2	20
					3	4.3	27.0						
T4H2222	208/230	197	240	24	4	4.3	27.0	1	1.8	0.33	19.0	20.1	25

Note: * - Control Voltage is supplied from the indoor unit. No separate supply required.

SOUND DATA

Unit	Sound dBA
UNH09 or UNH12	51
UNH24	56
T2H	70
T3H	70
T4H	70

Note: Sound data for indoor unit at high speed, 230 V
Sound data for outdoor unit at 230V

WEIGHT DATA

Unit	Weight, lbs (kg)
UNH09	92 (41.8)
UNH12	95 (43.2)
UNH24	116 (52.7)
T2H	325 (147.7)
T3H	325 (147.7)
T4H	325 (147.7)

INTERCONNECTING TUBING SPECIFICATIONS

Indoor Unit	Outdoor Circuit Capacity	Maximum Separation, Equivalent ft (m)	Maximum Elevation Difference ft (m)	Liquid Line OD	Suction Line OD	Condensate Line ID
UNH09	9,000 Btuh	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"
UNH12	12,000 Btuh	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"
UNH24	18,000 Btuh	100 (30.5)	35 (10.7)	3/8"	5/8"*	1/2"
UNH24	24,000 Btuh	100 (30.5)	35 (10.7)	3/8"	3/4"	1/2"

* UNH24 Suction Connection size is 3/4" O.D. and must bush down at the UNH Unit.

INDOOR AIR FLOW

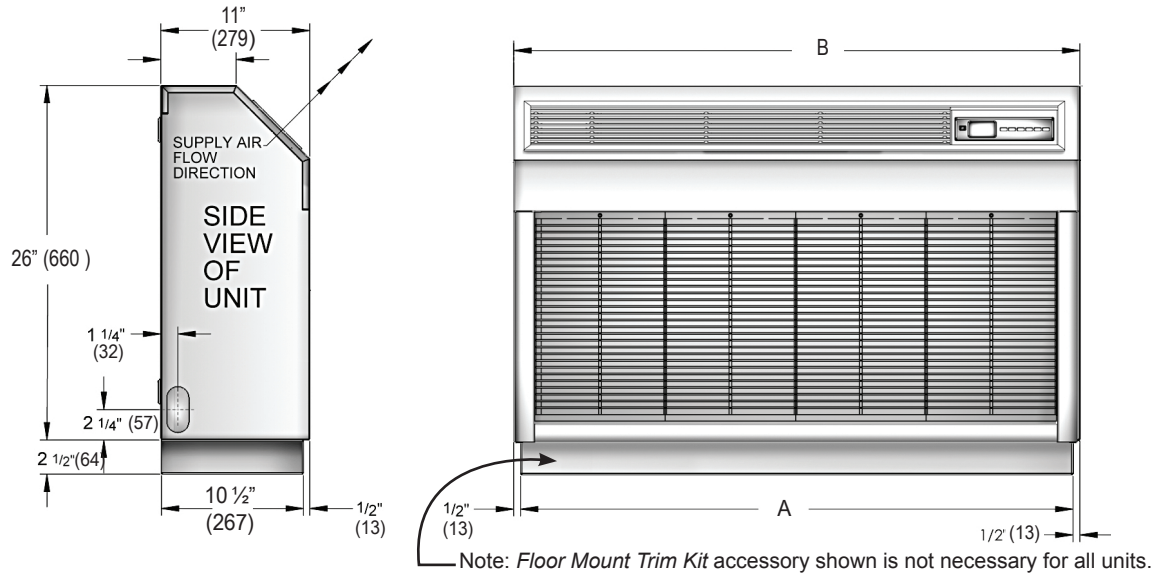
Indoor Unit	CFM (l/s)		Coil	ft/min (m/s)	Air Throw, ft. (m)
	High Speed	Low Speed			
UNH09 or UNH12	425 (200)	375 (175)	Dry	900 (4.6)	15 (4.6)
UNH24	700 (350)	550 (250)		1,225 (6.2)	24 (7.3)

EMI ENGINEERING SUBMITTAL UNH-T2H-T3H-T4H

PHYSICAL DIMENSIONS

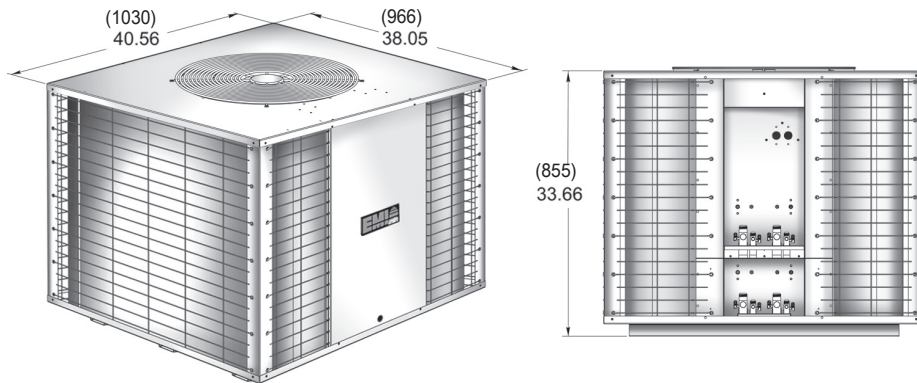
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INDOOR UNIT

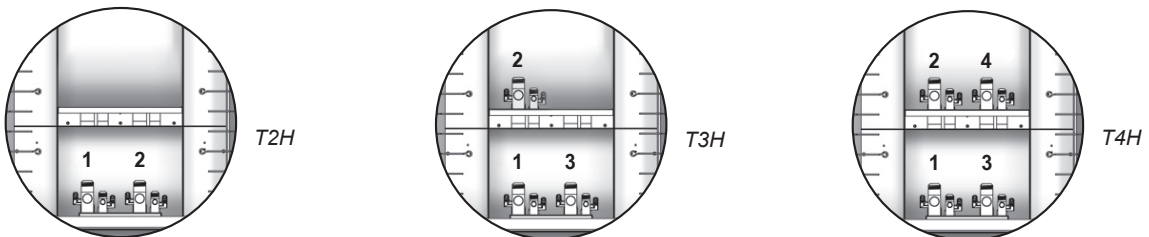


UNH PHYSICAL DIMENSIONS		
Model	"A" Depth Inches (mm)	"B" Length Inches (mm)
UNH09/12	40 1/2" (1029)	41 1/2" (1054)
UNH24	50 1/2" (1283)	51 1/2" (1308)

OUTDOOR UNIT



Circuit Connection Locations



Note: Numbers in () are mm.