

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

EMI ENGINEERING SUBMITTAL

UNHA / T2CA, T3CA, OR T4CA SYSTEM PERFORMANCE DATA					
Model		Cooling			
Outdoor	Indoor Air Handler	Btuh (kW)	SEER	SHR	EER
T2CA8800	(2) UNHA24	36000 (10.5)	13	0.72	11.7
T2CA8400	(2) UNHA24	41000 (12.0)	13	0.68	11.4
T2CA4400	(2) UNHA24	45000 (13.2)	13	0.65	11.4
T2CA2400	(1) UNHA12 (1) UNHA24	34000 (10.0)	13	0.67	11.4
T2CA9800	(1) UNHA09 (1) UNHA24	27000 (7.9)	13	0.74	11.4
T3CA9990	(3) UNHA09	27000 (7.9)	13	0.80	11.3
T3CA9920	(2) UNHA09 (1) UNHA12	30000 (8.8)	13	0.76	11.5
T3CA9980	(2) UNHA09 (1) UNHA24	36000 (10.5)	13	0.76	11.4
T3CA9940	(2) UNHA09 (1) UNHA24	41000 (12.0)	13	0.71	11.5
T3CA9220	(1) UNHA09 (2) UNHA12	32000 (9.4)	13	0.74	11.4
T3CA9280	(1) UNHA09 (1) UNHA12 (1) UNHA24	39000 (11.4)	13	0.73	11.5

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)

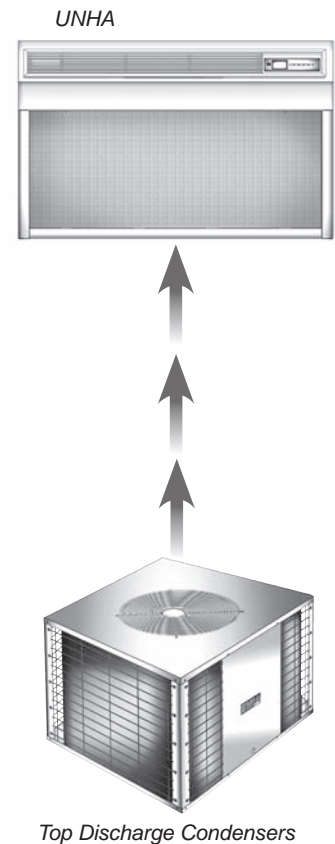


Chart continued next page

EMI ENGINEERING SUBMITTAL UNHA-T2CA-T3CA-T4CA

(Continued) UNHA / T2CA, T3CA, OR T4CA SYSTEM PERFORMANCE DATA					
Model		Cooling			
Outdoor	Indoor Air Handler	Btuh (kW)	SEER	SHR	EER
T3CA9240	(1) UNHA09, (1) UNHA12, (1) UNHA24	43000 (12.6)	13	0.69	11.4
T3CA2280	(2) UNHA12, (1) UNHA24	41000 (12.0)	13	0.76	11.4
T3CA2240	(2) UNHA12, (1) UNHA24	46000 (13.5)	13	0.68	11.5
T3CA2220	(3) UNHA12	34000 (10.0)	13	0.72	11.3
T4CA9999	(4) UNHA09	36000 (10.5)	13	0.8	11.4
T4CA9992	(3) UNHA09, (1) UNHA12	38000 (11.1)	13	0.77	11.4
T4CA9922	(2) UNHA09, (2) UNHA12	41000 (12.0)	13	0.76	11.5
T4CA9222	(1) UNHA09, (3) UNHA12	42000 (12.3)	13	0.72	11.4
T4CA2222	(4) UNHA12	45000 (13.2)	13	0.72	11.3

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 / T2CA, T3CA, OR T4CA CIRCUIT PERFORMANCE DATA

Model		Circuit	Cooling Btuh (kW)
Outdoor	Indoor Air Handler		
T2CA8800	(2) UNHA24	1	18,000 (5.3)
		2	18,000 (5.3)
T2CA8400	(2) UNHA24	1	18,000 (5.3)
		2	23,000 (6.7)
T2CA4400	(2) UNHA24	1	22,500 (6.6)
		2	22,500 (6.6)
T2CA2400	(1) UNHA12 (1) UNHA24	1	11,000 (3.2)
		2	23,000 (6.7)
T2CA9800	(1) UNHA09 (1) UNHA24	1	9,000 (2.6)
		2	18,000 (5.3)
T3CA9990	(3) UNHA09	1	9,000 (2.6)
		2	9,000 (2.6)
		3	9,000 (2.6)
T3CA9920	(2) UNHA09 (1) UNHA12	1	9,300 (2.7)
		2	9,300 (2.7)
		3	11,400 (3.3)
T3CA9980	(2) UNHA09 (1) UNHA24	1	9,100 (2.7)
		2	9,100 (2.7)
		3	17,800 (5.2)
T3CA9940	(2) UNHA09 (1) UNHA24	1	9,200 (2.7)
		2	9,200 (2.7)
		3	22,600 (6.6)
T3CA9220	(1) UNHA09 (2) UNHA12	1	9,200 (2.7)
		2	11,400 (3.3)
		3	11,400 (3.3)
T3CA9280	(1) UNHA09 (1) UNHA12 (1) UNHA24	1	9,000 (2.6)
		2	12,000 (3.5)
		3	18,000 (5.3)
T3CA9240	(1) UNHA09 (1) UNHA12 (1) UNHA24	1	9,000 (2.6)
		2	11,000 (3.2)
		3	23,000 (6.7)

Model		Circuit	Cooling Btuh (kW)
Outdoor	Indoor Air Handler		
T3CA2280	(2) UNHA12 (1) UNHA24	1	11,500 (3.4)
		2	11,500 (3.4)
		3	18,000 (5.3)
T3CA2240	(2) UNHA12 (1) UNHA24	1	11,200 (3.3)
		2	11,200 (3.3)
		3	23,600 (7.0)
T3CA2220	(3) UNHA12	1	11,400 (3.3)
		2	11,400 (3.3)
		3	11,400 (3.3)
T4CA9999	(4) UNHA09	1	9,000 (2.6)
		2	9,000 (2.6)
		3	9,000 (2.6)
		4	9,000 (2.6)
T4CA9992	(3) UNHA09 (1) UNHA12	1	9,000 (2.6)
		2	9,000 (2.6)
		3	9,000 (2.6)
		4	11,000 (3.2)
T4CA9922	(2) UNHA09 (2) UNHA12	1	9,300 (2.7)
		2	9,300 (2.7)
		3	11,200 (3.3)
		4	11,200 (3.3)
T4CA9222	(1) UNHA09 (3) UNHA12	1	9,000 (2.6)
		2	11,000 (3.2)
		3	11,000 (3.2)
		4	11,000 (3.2)
T4CA2222	(4) UNHA12	1	11,200 (3.3)
		2	11,200 (3.3)
		3	11,200 (3.3)
		4	11,200 (3.3)

EMI ENGINEERING SUBMITTAL UNHA-T2CA-T3CA-T4CA

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

▲ **STANDARD FEATURES:**

INDOOR UNIT:

- Ceiling-Suspended or Floor Console mounted without any field modification
- 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
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Outdoor Coil
- R-22 Refrigerant
- Suction Accumulator (9,000, 12,000, 18,000 Btuh circuits only)
- Solid Core Filter Drier
- Loss of Charge Switch (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 UNHA24 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**
- Infra red Hand-held Controller**

OUTDOOR UNIT

- Low Ambient Accessory Kit** for cooling operation to 32° F (0° C)
- Wind Baffle/Hail Guard, Architectural Louver Kit** allows Low Ambient cooling operation to 0° F (-18° C) when used with Low Ambient Accessory Kit
- Hard Start**

Refrigerant Line Sets

- 10'
- 25'
- 50'

EMI ENGINEERING SUBMITTAL UNHA-T2CA-T3CA-T4CA

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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			
UNHA09 UNHA12	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
UNHA24	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			
T2CA8800	208/230	197	240	24	2	5.4	36.0	1	1.8	0.33	12.6	14.0	15
T2CA8400	208/230	197	240	24	1	5.4	36.0	1	1.8	0.33	15.2	17.2	25
					1	8	53.5						
T2CA4400	208/230	197	240	24	2	8	53.5	1	1.8	0.33	17.8	19.8	25
T2CA2400	208/230	197	240	24	1	4.5	21	1	1.8	0.33	14.3	16.3	20
					1	8	53.5						
T2CA9800	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						
T3CA9990	208/230	197	240	24	3	3.4	23.0	1	1.8	0.33	12.0	12.9	15
T3CA9920	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	13.1	14.3	15
					1	4.5	21.0						
T3CA9980	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						
T3CA9940	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	16.6	18.6	25
					1	8	53.5						
T3CA9220	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	13.1	14.3	15
					2	4.5	21.0						
T3CA9280	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	15.9	16.5	20
					1	4.5	21.0						
					1	5.4	36.0						
T3CA9240	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	17.7	19.7	25
					1	4.5	21.0						
					1	8	53.5						
T3CA2280	208/230	197	240	24	2	4.5	21.0	1	1.8	0.33	16.2	17.6	20
					1	5.4	36.0						

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

EMI ENGINEERING SUBMITTAL UNHA-T2CA-T3CA-T4CA

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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			
T3CA2240	208/230	197	240	24	2	4.5	21	1	1.8	0.33	18.2	20.8	25
					1	8	53.5						
T3CA2220	208/230	197	240	24	3	4.5	21	1	1.8	0.33	15.3	16.5	20
T4CA9999	208/230	197	240	24	4	3.5	19	1	1.8	0.33	15.8	16.7	20
T4CA9992	208/230	197	240	24	3	3.4	23.0	1	1.8	0.33	16.5	17.7	20
					1	4.5	21						
T4CA9922	208/230	197	240	24	2	3.5	19	1	1.8	0.33	17.8	19	20
					2	4.5	21						
T4CA9222	208/230	197	240	24	1	3.5	19	1	1.8	0.33	18.8	19.9	20
					3	4.5	21						
T4CA2222	208/230	197	240	24	4	4.5	21	1	1.8	0.33	19.8	21	25

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

SOUND DATA

Unit	Sound dBA
UNHA09 or UNHA12	51
UNHA24	56
T2CA	70
T3CA	70
T4CA	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)
UNHA09	92 (41.8)
UNHA12	95 (43.2)
UNHA24	116 (52.7)
T2CA	325 (147.7)
T3CA	310 (141.0)
T4CA	290 (132.0)

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
UNHA09	9,000 Btuh	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"
UNHA12	12,000 Btuh	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"
UNHA24	18,000 Btuh	100 (30.5)	35 (10.7)	3/8"	5/8"*	1/2"
UNHA24	24,000 Btuh	100 (30.5)	35 (10.7)	3/8"	3/4"	1/2"

* UNHA24 Suction Connection size is 3/4" O.D. and must bush down at the UNHA Unit.

INDOOR AIR FLOW

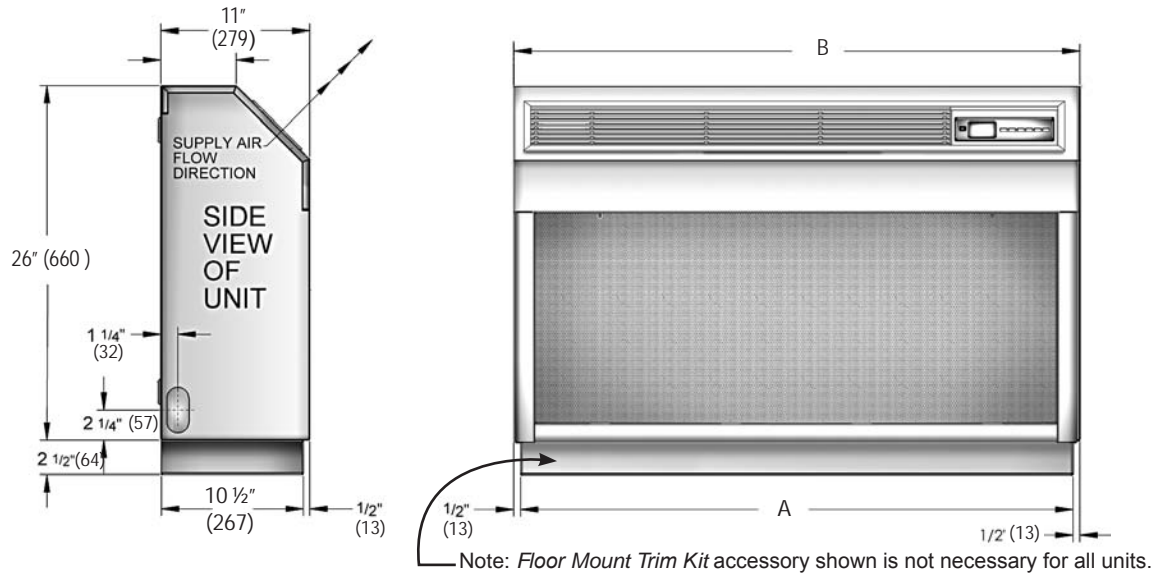
Indoor Unit	CFM (l/s)		Coil	ft/min (m/s)	Air Throw, ft. (m)
	High Speed	Low Speed			
UNHA09 or UNHA12	425 (200)	375 (175)	Dry	900 (4.6)	15 (4.6)
UNHA24	700 (350)	550 (250)		1,225 (6.2)	24 (7.3)

EMI ENGINEERING SUBMITTAL UNHA-T2CA-T3CA-T4CA

PHYSICAL DIMENSIONS

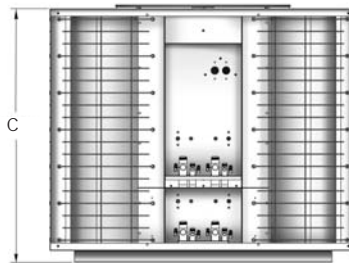
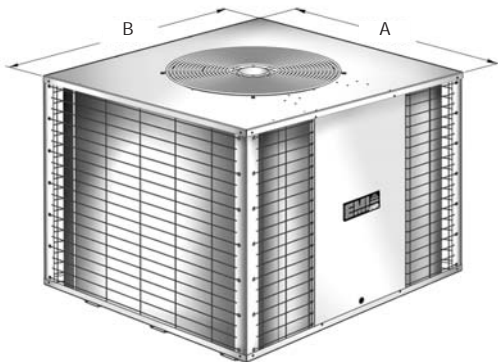
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INDOOR UNIT



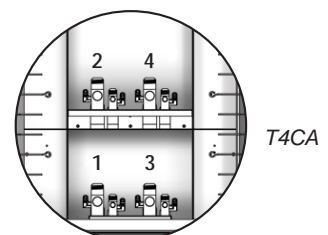
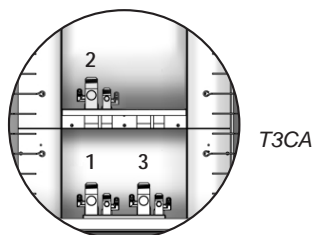
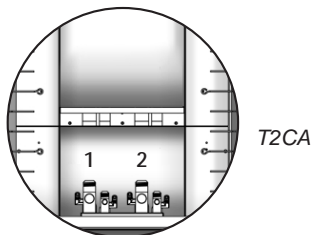
UNHA PHYSICAL DIMENSIONS		
Model	"A" Depth Inches (mm)	"B" Length Inches (mm)
UNHA09/12	40 1/2" (1029)	41 1/2" (1054)
UNHA24	50 1/2" (1283)	51 1/2" (1308)

OUTDOOR UNIT



Cabinet Size	"A" In. (mm)	"B" In. (mm)	"C" In. (mm)
T3C9990 T4C9999	41" (1041)	32" (813)	26" (660)
All Others	41" (1041)	32" (813)	30" (762)

Circuit Connection Locations



Note: Numbers in () are mm.