



TRANE 4WCA4048C RunTru Heat Pump Package Unit User Manual

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Submittal
Single Packaged
Cooling/Electric Heat
4TCA4042C1000A



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Product Specifications

MODEL	4TCA4042C1000A
RATED Volts/PH/Hz	208–230 / 1 / 60
Performance Cooling BTUH (a)	39500
Indoor Airflow (CFM)	1300
Power Input (KW)	3.54
EER2/SEER2 (BTU/Watt-Hr.) (b)	10.6 / 13.4
Sound Power Rating [dB(A)] (c)	79
POWER CONN. — V/Ph/Hz	208–230 / 1 / 60
Min. Cir. Ampacity (d)	31
Max. Overcurrent Protection	50
COMPRESSOR	SCROLL
Volts/Ph/Hz	208–230 / 1 / 60
R.L. Amps — L.R. Amps	19.2 / 124
OUTDOOR COIL — TYPE	MCHE
Rows/F.P.I	23-Jan
Face Area (sq. ft.)	13.2
Tube Size (in.)	1
INDOOR COIL — TYPE	MCHE
Rows/F.P.I	16-Feb
Face Area (sq. ft.)	4.81
Tube Size (in.)	0.81
Refrigeration Control	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 MALE NPT
OUTDOOR FAN — TYPE	PROPELLER
DIA. (IN.)	23-Jan

DRIVE/NO. SPEEDS	DIRECT / 1
CFM @ 0.0 in. w.g. (e)	3540
Motor — HP/R.P.M	1/5 / 825
Volts/Ph/Hz	200–230 / 1 / 60
F.L. Amps/L.R Amps	1.2 / 2.51
INDOOR FAN — TYPE	CENTRIFUGAL
Dia. x Width (in.)	11 X 8
Drive/No. Speeds	DIRECT / 3
CFM @ 0.0 in. w.g. (f)	SEE FAN PERF TABLE
Motor — HP/R.P.M.	3/4 / VARIABLE
Volts/Ph/Hz	208–230 / 1 / 60
F.L. Amps	6.3
FILTER / FURNISHED	NO
Type Recommended	THROWAWAY
Recmd. Face Area (sq. ft) (g)	5.3
REFRIGERANT	R-410A
Charge (lbs.)	4.24
CHARGING SPECIFICATIONS	
Subcooling	12°
DIMENSIONS	H X W X L
Crated (in.)	36.5 X 62.5 X 40.9
WEIGHT	
Shipping (lbs.) / Net (lbs.)	430 / 400

(a) Rated in accordance with AHRI Standard 210/240.

(b) Rated in accordance with D.O.E. test procedure.

(c) Sound Power values are not adjusted for AHRI 270–95 tonal corrections.

(d) Calculated in accordance with currently prevailing Nat'l Electrical Code.

(e) Standard Air — Dry Coil — Outdoor.

(f) Standard Air — Dry Coil — Indoor

(g) Filters must be installed in return air stream. Square footages listed are based on 300 f.p.m. face velocity. If permanent filters are used size per manufacturer's recommendation with a clean resistance of 0.05" W.C.

Outline Drawings

Technical drawing of the ceiling-mounted unit showing dimensions: 1544 mm width and 644 mm height.

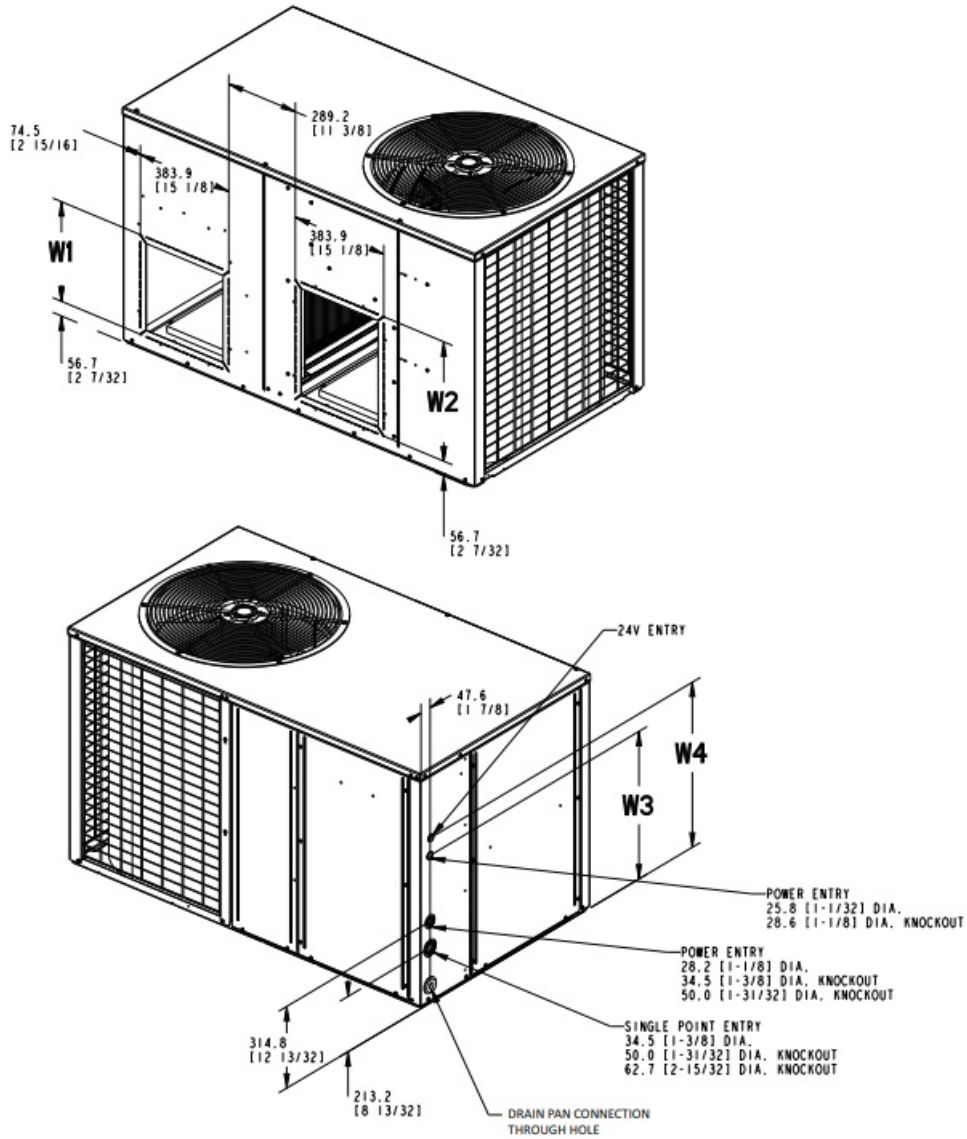
A technical drawing of a door assembly. The door features a grid pattern of horizontal and vertical lines. To the left of the door, a vertical dimension line with arrows at both ends is labeled 'A', indicating the height of the door.

The plan view shows a rectangular specimen with two square loading areas. Dimensions are given in mm [inches].

- Total width: 810.0 [31.9]
- Total height: 513.3 [20.2]
- Left loading area side length: 119.3 [4.7]
- Right loading area side length: 119.3 [4.7]
- Distance from left edge to center of left loading area: 410.2 [16.1]
- Distance between centers of loading areas: 386.3 [15.2]
- Distance from right edge to center of right loading area: 275.3 [10.8]
- Distance from bottom edge to center of left loading area: 462.5 [18.2]
- Distance from bottom edge to center of right loading area: 388.5 [15.3]
- Load F is applied to both loading areas.

BOTTOM SIDE

Figure 2. 2–5 Tons

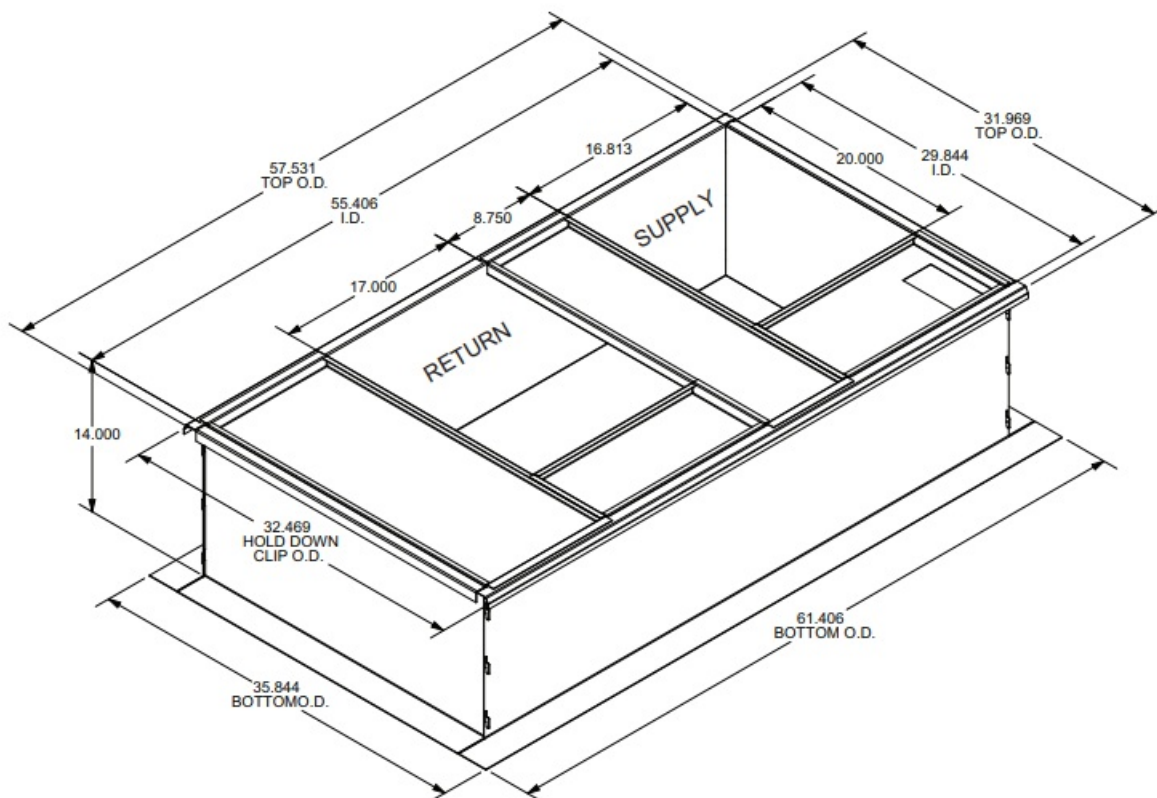


MODEL	HEIGHT MM /IN.														
	A			WI			W 2				W 3			W 4	
4TCA4024C	918. 8	136-5 132]	383 .9	(1 5	1/8]	460 .1	[1 8	1/ 8]	568 .8	[2 2	13/3 2]	636. 1	(2 5	1/3 2]	400
4TCA4030C	918. 8	[36-5/ 32]	383 .9	[1 5	1/8]	460 .1	[1 8	1/8]	568 .8	[2 2	13/3 2]	636. 1	[2 5	1/3 2]	400
4TCA4036C	918. 8	[36-5/ 32]	383 .9	[1 5	1/8]	460 .1	[1 8	1/ 8]	568 .8	[2 2	13/3 2]	636. 1	[2 5	1/32]	420
4TCA4042C	918. 8	[36-5/ 32]	383 .9	(1 5	1/8]	460 .	(1 8	1/ 8]	568 .8	[2 2	13/3 2]	636. 1	(2 5	1/3 2]	420
4TCA4048C	104 5.8	[41-51 32]	460 .1	[1 8	1/ 8]	510 .9	[2 0	1/ 8]	645 .0	[2 5	13/3 2]	712. 3	[2 8	1/3 2]	440
4TCA4060C	104 5.8	[41-5/ 32]	460 .1	(1 8	1/8]	510 .9	[2 0	1/ 8]	645 .0	[2 5	13/3 2]	712. 3	[2 8	1/32]	440

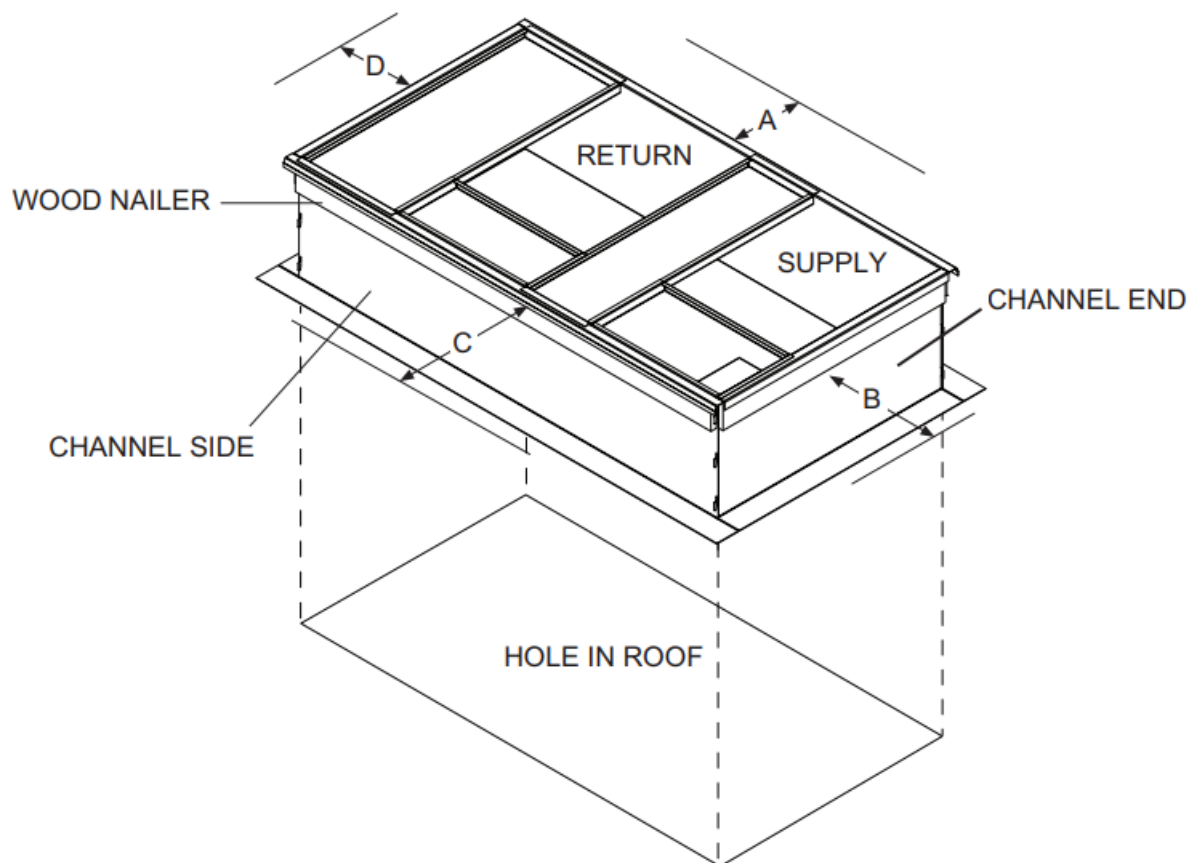
Full Perimeter Roof Mounting Curb

Figure 3. 2.0 — 5.0 Ton Models

BAYCURB060A Full Perimeter Roof Mounting Curb



The drawings on this page are prepared by the manufacturer in order to provide detail regarding job layout only. These drawings are not intended to be used as a basis to construct, build or modify the items depicted in the drawings. The manufacturer is not responsible for the unauthorized use of these drawings and expressly disclaims any liability for damages resulting from such unauthorized use.



SERVICE CLEARANCE DIMENSIONS			
A	B	C	D
12	42	42	36

Supplementary Electric Heaters

Table 1. BAYHTR1V — Supplementary Electric Heaters

UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLT-AGE	PHASE	AMPS	HEATER CAPACITY		NO. OF STAGES	KW/STAGE		MCA	MAX. OVERCURRENT PROTECTION DEVICE
					KW	BTUH		1	2		
4TCA4024C1000A 4TCA4030C1000A 4TCA4036C1000A 4TCA4042C1000A 4TCA4048C1000A 4TCA4060C1000A	BAYHTR1V05 LUGAA	208/240	1	17/20	3.6/4.8	12300/16400	1	3.6/4.8	—	22/25	25/25
4TCA4036C1000A 4TCA4042C1000A 4TCA4048C1000A 4TCA4060C1000A	BAYHTR1V08 LUGAA	208/240	1	28/32	5.76/7.68	19700/26200	1	5.76/7.68	—	35/40	35/40
4TCA4048C1000A 4TCA4060C1000A	BAYHTR1V10 LUGAA	208/240	1	35/40	7.2/9.6	24600/32800	1	7.2/9.6	—	43/50	45/50
4TCA4030C1000A 4TCA4036C1000A 4TCA4042C1000A 4TCA4048C1000A 4TCA4060C1000A	BAYHTR1V15 BRKAA	208/240	1	52/60	10.8/14.4	36900/49100	2	7.2/9.6	3.6/4.8	65/75	70/80
4TCA4048C1000A 4TCA4060C1000A 4TCA4060C1000A	BAYHTR1V20 BRKAA	208/240	1	69/80	14.4/19.2	49100/65500	2	7.2/9.6	7.2/9.6	87/100	90/100
1. Any power supply and circuits must be wired and protected in accordance with local electrical codes. 2. The values listed in the above table are for the electric heater only. 3. Field wiring must be rated at least 75° C. 4. * indicates an alpha character ALL VALUES ARE FOR THE ELECTRIC HEATER ONLY											

Table 2. BAYSPEK — Single Power Entry Kit

SINGLE CIRCUIT POWER AMPACITY AND OVER CURRENT PROTECTION				
UNIT MODEL	SINGLE POWER ENTRY KIT	HEATER MODEL	MIN CKT AMP	MAX OVER-CURRENT DEVICE
4TCA4042C	BAYSPEK071	BAYHTR1V15	83	90
	BAYSPEK072	BAYHTR1V05	33	50
		BAYHTR1V08	48	50
		BAYHTR1V10	58	60

Mechanical Specifications

General

The units shall be horizontal airflow as shipped and convertible to downflow. All units shall be factory assembled, piped, internally wired and fully charged with refrigerant. Units shall be certified to UL Standard 1995. All units shall be factory run tested to check cooling operation, fan and blower rotation and control or TXV sequence. Units shall be designed to operate at ambient temperatures between 115°F and 55°F in cooling as manufactured. Cooling performance shall be rated in accordance with AHRI standards.

Unit Casing

All components shall be mounted in a weather-resistant steel cabinet with an enamel finish. Access panels shall be provided for unit controls and indoor coil and fans. Indoor air section compartment shall be completely insulated with fireproof, permanent, odorless fiber material. Knockouts shall be provided for utility and control connections. Drain connections shall be provided to accommodate indoor water runoff.

Compressor (2 and 2 1/2 Ton Models)

The compressor shall be hermetically sealed, high efficiency rotary compressors. Internal overcurrent and over temperature protection, internal pressure relief shall be standard. Other features include centrifugal oil pump, low vibration and noise.

Compressor (3-5 Ton Models)

The compressor shall be hermetically sealed, high efficiency scroll compressors. Internal overcurrent and over temperature protection, internal pressure relief shall be standard. Other features include centrifugal oil pump, low vibration and noise.

Refrigeration System

All units shall have refrigerant control. Service pressure tap ports and a refrigerant line filter shall be standard. Evaporator Coil (2-4 Ton Models) All aluminum micro channel, extruded tubes, mechanically bonded to aluminum fins, and factory pressure and leak tested at 480 – 650 psig. All units have TXV to control refrigerant flow.

Evaporator Coil (5 Ton Model) Internally enhanced 3/8" OD seamless copper tubing mechanically bonded to aluminum fins, factory pressure and leak tested at 480 – 650 psig. All units have TXV to control refrigerant flow.

Condenser Coil

All aluminum micro channel, extruded tubes, mechanically bonded to aluminum fins, and factory pressure and leak tested at 480 — 650 psig.

Indoor Air Fan

Constant Torque, forward-curved, centrifugal wheel in a Metallic Blower housing. Motor shall have thermal overload protection and permanently lubricated motor bearings. Motor/blower assembly isolated from unit with rubber mounts.

Outdoor Fan

One direct-drive, statically and dynamically balanced propeller fan shall be used in a draw-through vertical discharge configuration. Permanently lubricated weather proof motor shall have built-in thermal overload protection.

System Controls

System controls include condenser fan, evaporator fan and compressor contactors.

Accessories Roof Curb

The roof curb shall be designed to mate with the unit and provide support and complete weathertight installation when properly installed. Adhesive back polyurethane sealing strips shall be provided to ensure an airtight seal between supply and return openings of the curb and unit. The roof curb design allows field fabricated ductwork to be connected directly to the curb. Curb ships knocked down for field assembly, and includes factory installed wood nailer strips.

Electric Heaters

Each heater assembly shall include power supply fusing if over 48 amps, automatic resetting limit switches and heat limiters for thermal protection. Heaters shall be provided with polarized plugs for quick connection to unit low voltage wiring. Electric heat modules shall be UL listed.

Single Source Power Entry

This accessory when used with electric heat accessory shall allow single source power connection to unit and heater combination. Single source power entry kits shall have specific matching heater(s). Kit shall include high voltage terminal blocks, fuse blocks and fuses, cut-to-length interconnecting wiring, and junction box (if required) to provide power sources with fuse protection as required for both the unit and accessory heater. Kit components shall install within the heater cabinet in the heater access section. Single source branch power circuit shall be

protected and wired in accordance with local codes.

Start Kit

Extra compressor starting capacity for single phase equipment.

Control Options

Standard Indoor Thermostats

Two stage heating/cooling or one stage heating/ cooling thermostats shall be available in either manual or automatic changeover.

Programmable Electronic Night Setting Thermostat Programmable electronic thermostat shall provide heating setback and cooling setup with 7-day programming capability. 1H/1C or 2H/2C models available.

About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit www.trane.com or www.americanstandardair.com.



The AHRI Certified mark indicates company participation in the AHRI Certification program. For verification of individual certified products, go to ahridirectory.org.

The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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Supersedes (New)

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Documents / Resources

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