



# TRANE 4WCA4042C RunTru Heat Pump Package Unit Instruction Manual

[Home](#) » [Trane](#) » TRANE 4WCA4042C RunTru Heat Pump Package Unit Instruction Manual 

## Contents

- [1 TRANE 4WCA4042C RunTru Heat Pump Package Unit](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 Product Specifications](#)
- [5 Outline Drawings](#)
- [6 Indoor Fan Performance \(230v\)](#)
- [7 Full Perimeter Roof Mounting Curb](#)
- [8 Supplementary Electric Heaters](#)
- [9 Mechanical Specifications](#)
- [10 Documents / Resources](#)
  - [10.1 References](#)
- [11 Related Posts](#)



**TRANE 4WCA4042C RunTru Heat Pump Package Unit**



## Product Information

Model	4WCA4042C1000A
Product Specifications	Single Packaged Heat Pump
Refrigerant	R-410A
Charge (lbs.)	6.9
Indoor Fan Type	Centrifugal
Indoor Fan Motor – HP/R.P.M.	3/4 / Variable
Volts/Ph/Hz	200/230/1/60
F.L. Amps/L.R Amps	6.3
Filter Furnished	No
Type Recommended	Throwaway
Net Weight (lbs.)	440

## Product Usage Instructions

To use the Single Packaged Heat Pump (Model: 4WCA4042C1000A), please follow the instructions below:

1. Ensure that the unit is properly installed and connected to the power supply.
2. Check the refrigerant charge level and make sure it is at 6.9 pounds of R-410A.
3. Set the desired temperature and mode on the control panel.
4. The centrifugal indoor fan will automatically adjust its speed based on the selected mode.
5. If necessary, install a throwaway filter in the return air stream to improve air quality.
6. Refer to the table for airflow settings based on external static pressure (ESP) and desired CFM (cubic feet per minute).

7. Ensure that the minimum heater airflow CFM is maintained according to the specifications.
8. If installing on a roof, refer to the full perimeter roof mounting curb figure for proper installation details.

Please note that these instructions are a general guide. For detailed installation and usage instructions, refer to the complete user manual provided with the product.

## Product Specifications

<b>MODEL</b>	4WCA4042C1000A
RATED Volts/PH/Hz	208–230/1/60
Performance Cooling BTUH (a)	41000
Indoor Airflow (CFM)	1400
Power Input (KW)	3.55
EER2/SEER2 (BTU/Watt-Hr.) (b)	10.6/13.4
Sound Power Rating [dB(A)] (c)	79.3
<b>PERFORMANCE HEATING</b>	
(High Temp.) BTUH	37400
Power Input (KW)	3.20
(Low Temp.) BTUH	21400
Power Input (KW)	2.97
HSPF2 (BTUH/Watt-Hr)	6.7
<b>POWER CONN. — V/Ph/Hz</b>	208/230/1/60
Min. Brch. Cir. Ampacity (d)	33
Fuse Size — Max. (amps)	50
Fuse Size — Recmd. (amps)	50

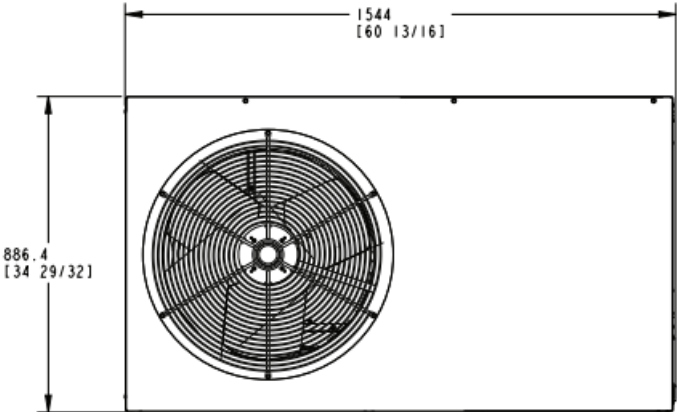
<b>COMPRESSOR</b>	SCROLL
VOLTS/PH/HZ	208/230/1/60
R.L. Amps — L.R. Amps	19.2/124
<b>OUTDOOR COIL — TYPE</b>	PLATE FIN
Rows/F.P.I	2/16
Face Area (sq. ft.)	13.2
Tube Size (in.)	5/16
Refrigerant Control	EXPANSION VALVE
<b>INDOOR COIL — TYPE</b>	PLATE FIN
Rows/F.P.I	4/16
Face Area (sq. ft.)	4.88
Tube Size (in.)	5/16
Refrigeration Control	EXPANSION VALVE
Drain Conn. Size (in.)	3/4 MALE NPT
<b>OUTDOOR FAN — TYPE</b>	PROPELLER

DIA. (IN.)	23
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	1.20/2.51
<b>INDOOR FAN — TYPE</b>	CENTRIFUGAL
Dia. x Width (in.)	11 X 11
Drive/No. Speeds	DIRECT / 3
CFM @ 0.0 in. w.g. (f)	SEE FAN PERFORMANCE TABLE
Motor — HP/R.P.M.	3/4 / VARIABLE
Volts/Ph/Hz	208–230/1/60
F.L. Amps	6.3
<b>FILTER / FURNISHED</b>	NO
Type Recommended	THROWAWAY
Recmd. Face Area (sq. ft) (g)	5.3
<b>REFRIGERANT</b>	R-410A
Charge (lbs.)	6.9
<b>CHARGING SPECIFICATIONS</b>	
Subcooling	12°
<b>DIMENSIONS</b>	H X W X L
Crated (in.)	40 7/8 x 36 3/8 x 61 1/8
<b>WEIGHT</b>	
Shipping (lbs.) / Net (lbs.)	485

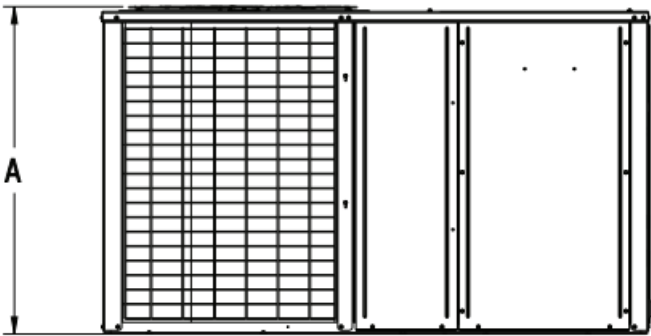
- Rated in accordance with AHRI Standard 210/240.
- Rated in accordance with D.O.E. test procedure.
- Sound Power values are not adjusted for AHRI 270–95 tonal corrections.
- Calculated in accordance with currently prevailing Nat'l Electrical Code.
- Standard Air — Dry Coil — Outdoor.
- Standard Air — Dry Coil — Indoor
- 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

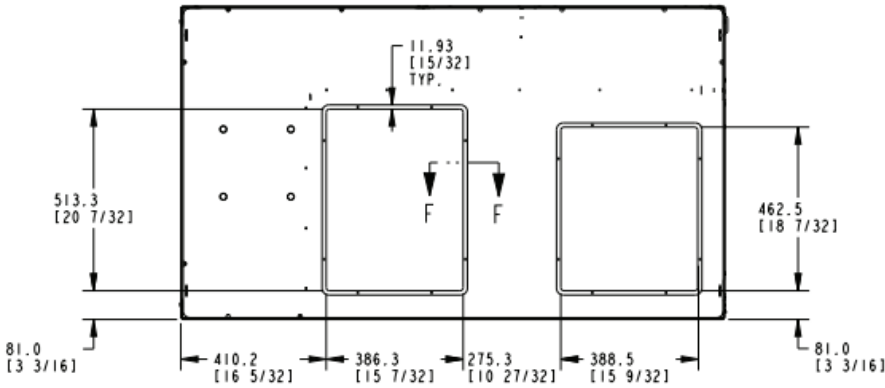
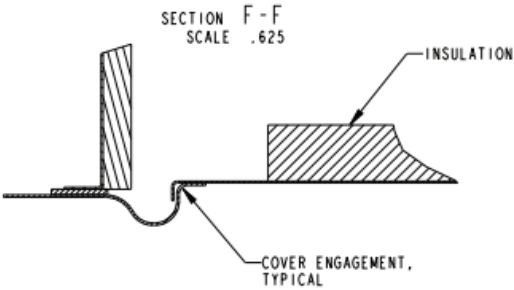
Figure 1. 2 – 5 Tons



TOP SIDE

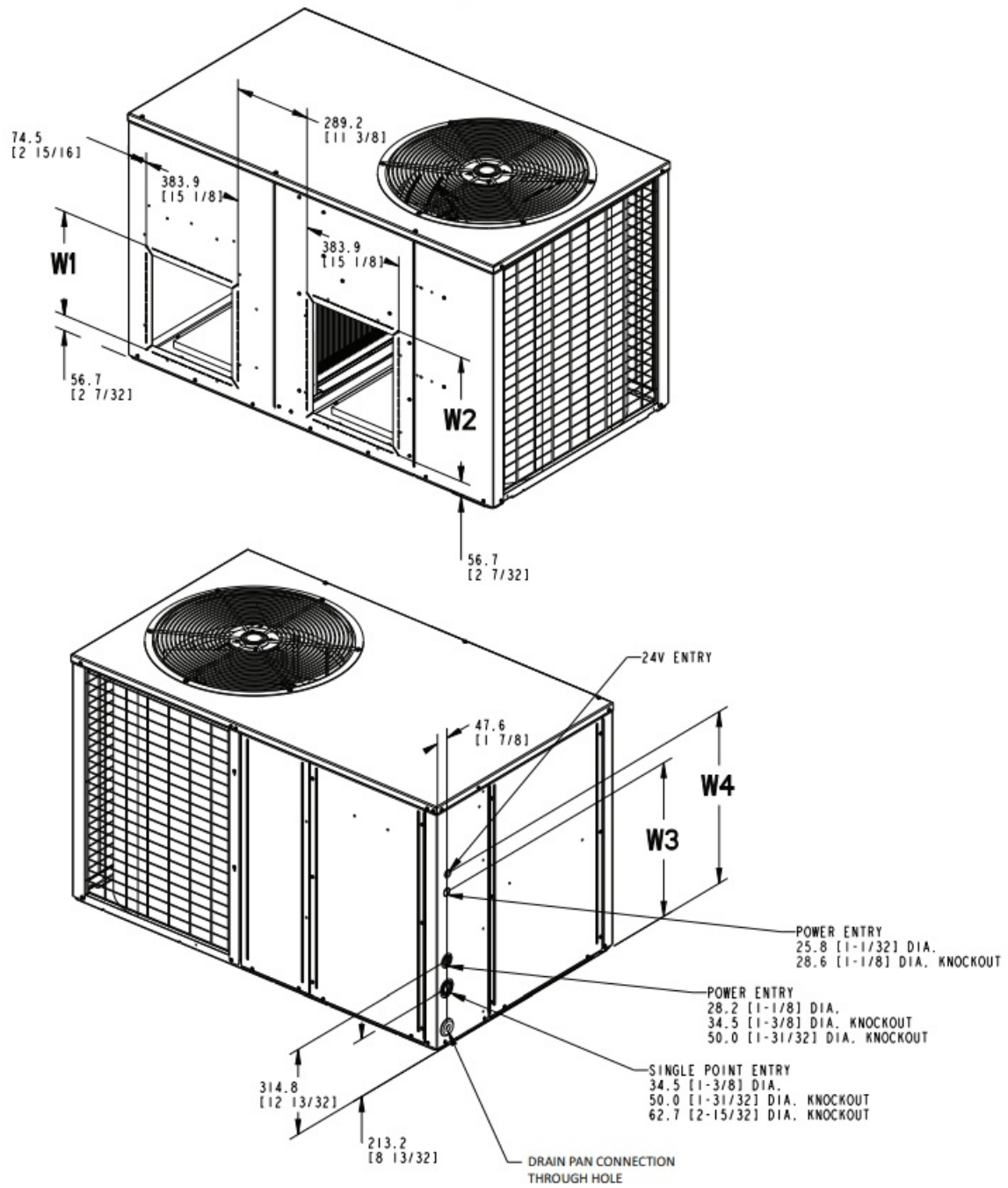


FRONT SIDE



BOTTOM SIDE

**Figure 2. 2 – 5 Tons**



MODEL	HEIGHT MM/ IN .					
	A	W1	W2	W3	W4	NET WEIGH T/LBS
4WCA4024C	918.8 [36-5/3 2]	383.9 [15 1 /8]	460.1 [18 1 /18]	568.8 [22 13/ 32]	636.1 [25 1/3 2]	410
4WCA4030C	918.8 [36-5/3 2]	383.9 [15 1 /8]	460.1 [18 1 /18]	568.8 [22 13/ 32]	636.1 [25 1/3 2]	410
4WCA4036C	918.8 [36-5/3 2]	383.9 [15 1 /8]	460.1 [18 1 /18]	568.8 [22 13/ 32]	636.1 [25 1/3 2]	430
4WCA4042C	918.8 [36-5/3 2]	383.9 [15 1 /8]	460.1 [18 1 /18]	568.8 [22 13/ 32]	636.1 [25 1/3 2]	440
4WCA4048C	1045.8 [41-5/ 32]	460.1 [18 1 /8]	510.9 [20 1 /8]	645.0 [25 13/ 32]	712.3 [28 1/3 2]	460
4WCA4060C	1045.8 [41-5/ 32]	460.1 [18 1 /8]	510.9 [20 1 /8]	645.0 [25 13/ 32]	712.3 [28 1/3 2]	460

## Indoor Fan Performance (230v)

**Table 1. Heater Table**

Heater	Minimum Heater Airflow CFM
	4WCA4042C1000A
BAYHTR1V05LUGAA	1200
BAYHTR1H08LUGAA	1200
BAYHTR1H10LUGAA	1200
BAYHTR1H15BRKAA	1400

**Table 2. Airflow Table**

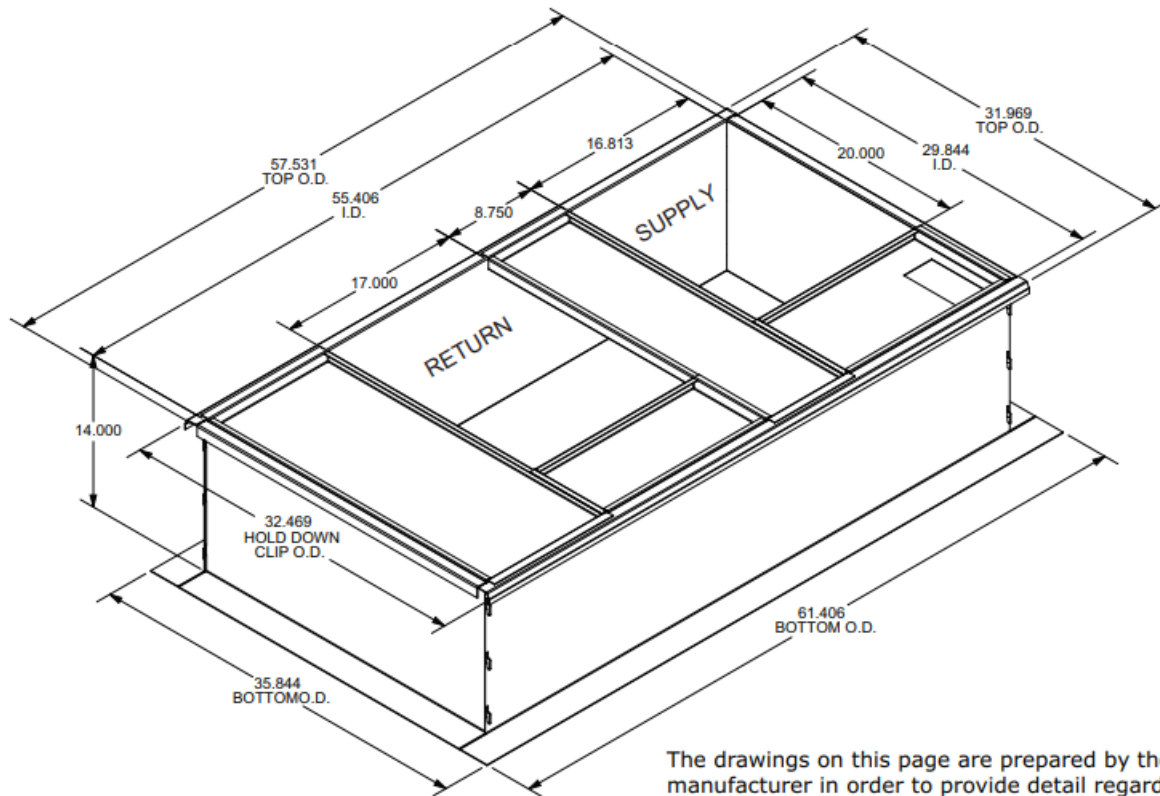
4WCA4042C	ESP	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
Low	CFM	1515	1450	1385	1320	1265	1210	1140			
	WATTS	325	337	347	357	365	373	387			
Medium	CFM			1602	1540	1485	1431	1382	1333	1267	1200
	WATTS			347	357	365	373	387	400	406	412
High	CFM						1598	1546	1495	1447	1399
	WATTS						637	647	657	673	689

**Note:** Airflow must not exceed 1575 CFM due to condensate blowoff.

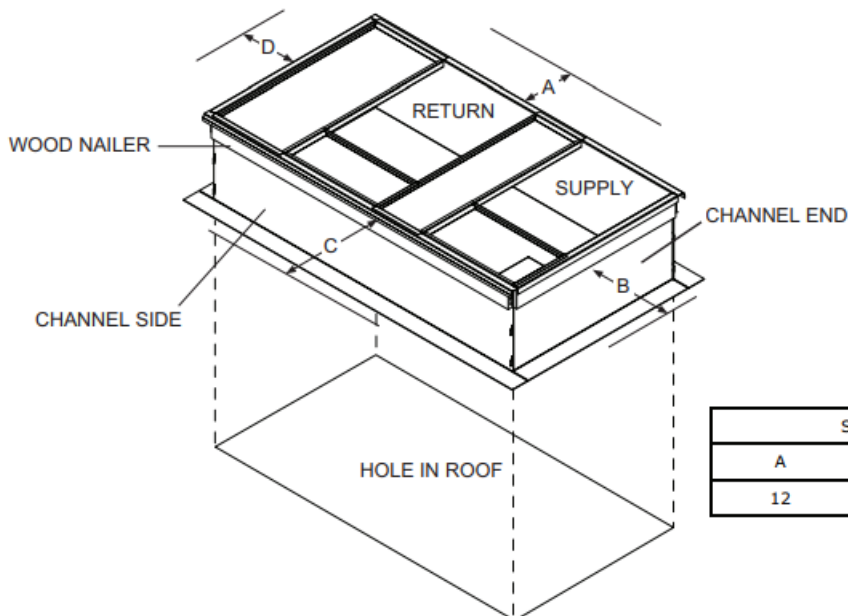
## Full Perimeter Roof Mounting Curb

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 3. HP Models Only

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		
4WCA4024*1000A	BAYHTR1V05LUGA*	208/240	1	17/20	3.6/4.8	12300/16400	1	3.6/4.8	—	22/25	25/25
4WCA4030*1000A 4WCA4036*1000A	BAYHTR1H08LUGA*	208/240	1	28/32	5.76/7.68	19700/26200	1	5.76/7.68	—	35/40	35/40
4WCA4042*1000A 4WCA4048*1000A 4WCA4060*1000A	BAYHTR1H10LUGA*	208/240	1	35/40	7.2/9.6	24600/32800	1	7.2/9.6	—	43/50	45/50
4WCA4036*1000A 4WCA4042*1000A 4WCA4048*1000A 4WCA4060*1000A	BAYHTR1H15BRKA*	208/240	1	52/60	10.8/14.4	36900/49100	2	7.2/9.6	3.6/4.8	65/75	70/80
4WCA4060*1000A	BAYHTR1H20BRKA*	208/240	1	69/80	14.4/19.2	49100/65500	2	7.2/9.6	7.2/9.6	87/100	90/100
<p>1. Any power supply and circuits must be wired and protected in accordance with local electrical codes.</p> <p>2. The values listed in the above table are for the electric heater only.</p> <p>3. Field wiring must be rated at least 75° C.</p> <p>4. * indicates an alpha character</p> <p>ALL VALUES ARE FOR THE ELECTRIC HEATER ONLY</p>											

**Table 4. 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
4WCA4042C	BAYSPEK070	BAYHTR1V05	58	70
		BAYHTR1H08	73	80
		BAYHTR1H10	83	90
	BAYSPEK071	BAYHTR1H15	108	110

## 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 weatherresistant 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 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](http://www.trane.com) or [www.americanstandardair.com](http://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](http://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.

<div>Submittal</div> <div><div>Single Packaged Heat Pump</div></div> <div>4WCA4042C-000-0A-EN</div>	<p><b>TRANE 4WCA4042C RunTru Heat Pump Package Unit</b> [pdf] Instruction Manual 4WCA4042C RunTru Heat Pump Package Unit, 4WCA4042C, RunTru Heat Pump Package Unit , Heat Pump Package Unit, Pump Package Unit, Package Unit</p>
--	--

References

-  [American Standard® | Air Conditioning and Heating | HVAC Systems](#)
-  [Trane Heating & Air Conditioning](#)