



# 50 Hz Package Cooling Units Product Data

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**Convertible Models**  
TCC030,040,050

30, 40, 50 MBh



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**IPB-99-3(50)-EN-10-15-99**



## General Features

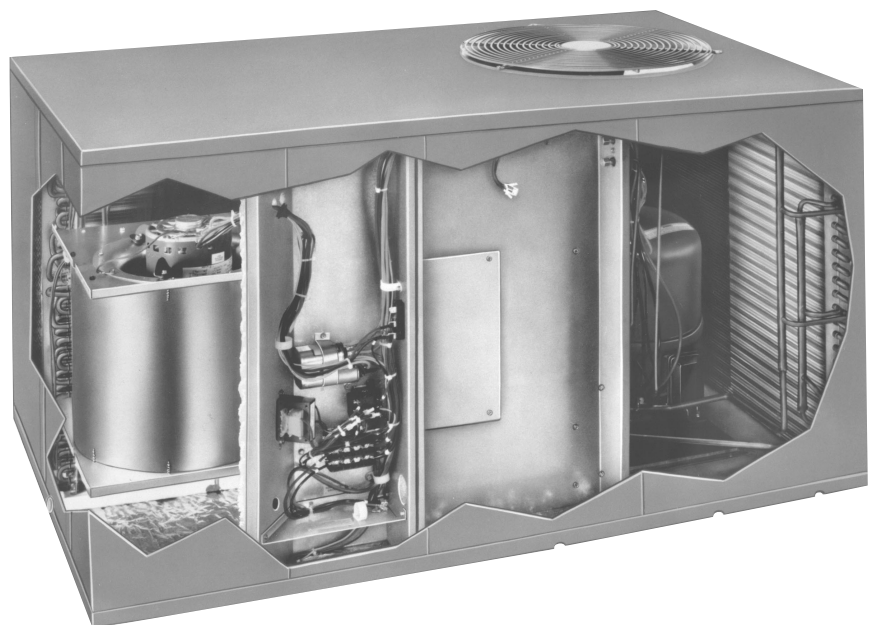
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*It's Hard To Stop A Trane.®*



**T-Top™**  
**Weatherguard™**  
**Corrosion Resistant Screws**  
**Powder Paint**  
**Water-Shed™ Base**

**High Efficiency**  
**Climatuff® Compressor**  
**DuraTuff™ Plate Fin Coil**  
**Sloped Drain Pan**  
**100% Foil Faced Insulation**  
**Easy Access**



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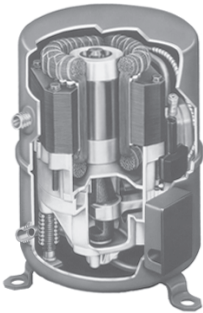
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# Features and Benefits

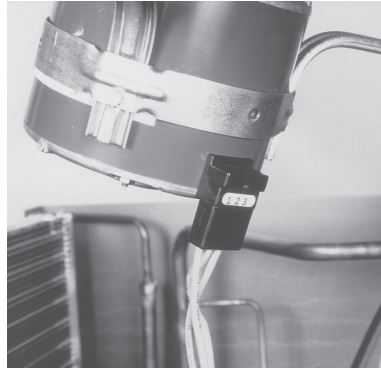
## Standard Equipment

- **High Efficiency**  
Impack performance is among the highest in the industry.
- **Climatuff® Compressor**  
Protection against chemical, electrical, and mechanical stresses are built in for efficiency and a longer life. The compressor is backed by a 5-year limited warranty, with an optional warranty for 5 more years.



- **Convertibility**  
Impack units are easily converted from horizontal to downflow with the removal of one screw from each panel. Accordingly, the need to stock both dedicated horizontal and dedicated downflow models has been eliminated.
- **Installation**  
The ease of installation and application flexibility exhibited through the design reduce both field time and material.
- **Application**  
The low profile horizontal duct take-offs eliminate the need for expensive transition ducts in crawl space applications.
- **Commonality**  
The common cabinet among the TCC's, WCC's, and YCC's minimizes both the training of sales and service personnel and replacement parts inventory.
- **Flexibility**  
A single curb fits the entire Impack line from 1.5 tons through 5 tons thereby providing great installation flexibility on shopping malls, factories, schools, and other commercial buildings where a mix-match of tonnages and utilities is desired.
- **Water-Shed™ Base**  
Superior water integrity is accomplished with the Water-Shed™ base pan having elevated downflow openings and a perimeter channel that prevents water from draining into the ductwork.

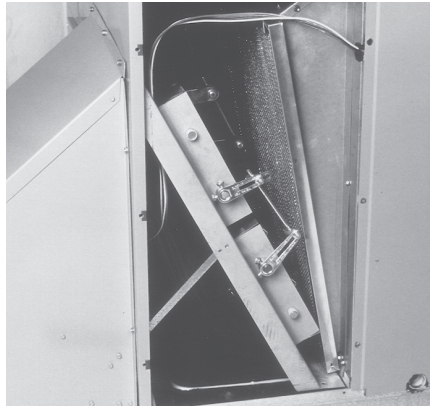
- **Easy Access**  
All electrical components can be diagnosed and replaced with the removal of one panel that is attached with two screws.
- **Service**  
All wiring is both numbered and color coded thereby reducing training and servicing costs related to circuit tracing and components replacements.



- **Maintenance**  
A plug on the outdoor fan motor allows the top cover to be removed completely without the hassle of cumbersome wires. The unique service orifice ring allows the indoor fan motor/blower to be removed as a unit.
  - **Plate Fin Coil**  
Refrigeration coils are built with internally enhanced copper tubing for high efficiency with less coil area.
  - **Air Filter**  
The filter frame kits fit inside the unit and provides filtration in either horizontal or downflow applications.
  - **Shipping**  
Unit dimensions were carefully selected to provide an attractive aspect ratio and for shipping and handling considerations.
  - **Good Neighbor**  
Most units can be installed flush with the residence or building thereby minimizing the ground space required. Blankets of insulation reduce blower noise and energy losses to the outside environments.
  - **Rooftop Mounting**  
The cabinets are physically smaller than most competitive models. This means less intrusive installations on residential rooftops where aesthetics are critical.
- **Handling**  
The three-way wooden skid allows for easy loading between the wheel wells on pickup trucks for transporting to job sites.
  - **Structure**  
The units are lighter weight through the use of high technology components thereby reducing mounting structure requirements and difficulty when handling.
  - **Duct Flanges**  
Only Impack has downflow duct flanges for duct attachments that preserve the built-in water integrity.
  - **Corrosion**  
The drain pan is engineered material and eliminates the need for coatings and sealers to prevent sweating and corrosion. The heavy gauge, zinc-coated steel cabinet has a weather resistant enamel finish that stays attractive and protects your investment for years.
  - **Low Ambient Control**  
Zero degree ambient cooling is accomplished with two kits. One for low cost installations when full tonnage is not needed. The other kit maintains head pressure and full capacity at zero degrees.
  - **Quality and Reliability Testing**  
We perform a 100% coil leak test at the factory. The evaporator and condenser coils are leak tested at the factory. The evaporator and condenser coils are leak tested at 200 psig and pressure tested to 450 psig respectively. In addition the Impack designs were rigorously rain tested at the factory to ensure water integrity. Shipping tests are performed to determine packaging requirements. Factory shake and drop tests are used as part of the package design process to help assure that the unit will arrive at the job site in top condition. Additionally, all components are inspected at the point of final assembly. Substandard parts and components are identified and rejected immediately. Every unit receives a 100% run test before leaving the production line to make sure it lives up to rigorous Trane® requirements. We at Trane test our designs at our factory and not on our customers!

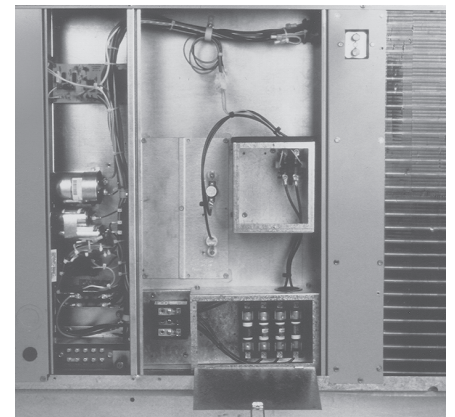
# Impack Accessories

- **Standard Thermostats**  
No special thermostats are needed with Impack units.



- **Filter Frame Kit**  
The Impack filter frames accept standard filters and fit inside the unit. The frame kits function in either horizontal or downflow duct configurations.
- **Coil Guard Kit**  
The guards are vinyl coated 1" x 3" wire grills. These grills will protect the coil from hail, kids with sticks as well as normal shipping and installation handling damage.
- **UNI-CURB™**  
One universal curb fits all the Impack models. It ships knocked down. The curb design incorporates the popular locking tabs for quick and easy assembly. Full perimeter curbs are also available for all models.
- **Economizer**  
The economizer fits inside the unit with only the rain hood and barometric relief on the outside. Cabling (with polarized plugs) is shipped with the economizer. This cabling is easily routed to the control box where it terminates in low voltage pigtailed. The economizer features a fully modulating low voltage motor eliminating the need for any high voltage wiring. The economizer must be used with the filter frame kit . . . no return air filter in the economizer kit. A dry bulb sensor is shipped with the economizer. The economizer was not designed for use in horizontal applications. Heat pump applications require a relay kit.
- **Enthalpy Control Kit**  
For those applications specifying an economizer with enthalpy control, this control can be used in place of the dry bulb sensor or, alternately, two enthalpy controls can be paired to provide differential enthalpy control.

- **25% Fresh Air Kit**  
The kit installs over the horizontal return air opening with six screws for downflow requirements. It can be used on horizontal air flow applications by cutting a hole in the return air duct or in the unit filter access panel.
- **Rectangular to Round Duct Kits**  
The adapter kit can be used in either horizontal or downflow applications.
- **Low Ambient Kit**  
An EDC provides low ambient cooling to 0° F with some reduced capacity and protects the system against evaporator icing during other unusual cooling conditions.
- **Fan Delay Relay Kit**  
This solid state kit is a time delay that keeps the indoor blower on for about ninety seconds and increases the SEER. It wires into the low voltage unit pigtailed.
- **High Static Motor Kit**  
Contains a higher torque indoor fan motor.
- **Lifting Lug Kit**  
Four reusable lugs in each kit allow units to be easily lifted to rooftop installations. These lugs snap (no screws required) into slots in the unit drip lip channel.
- **Start Kit**  
The kit mounts in the control box for those installations with specific conditions such as excessive voltage drop due to long wires. (This is a capacitor and start relay kit and is not a PTC device.) This kit can be a good specification buster!



- **Single Power Entry Kit**  
The kit minimizes installation costs by reducing the load center circuit requirement and reducing the number of circuit pulls needed.





# Optional Equipment

**OPTIONAL EQUIPMENT FOR PACKAGE UNITS (Check mark [✓] indicates accessories included).**

Indoor Thermostats — Heat/Cool (TCC-F) .....	AY28X092 [ ]
1H/1C Sub Base Required .....	AYSTAT182 [ ]
2H/2C Sub Base Required .....	BAYSTAT183 [ ]
Sub Base Thermostat (Auto/Man.) .....	BAY28X184 [ ]
Sub Base (Man.) .....	BAY28X185 [ ]
Night Setback (T-STAT Prog 2H/V) .....	BAYSTAT003B [ ]
Thermo Base (Auto) .....	BAY28X187 [ ]
Manual Changeover W/O Econ .....	BAYSTAT008 [ ]
Manual Changeover W/Econ .....	BAYSTAT012 [ ]
Manual 1-Stage Htg/2 Clg .....	BAYSTAT012 [ ]
Remote Sens for Progr Tstat (Programmable Thermostats) .....	BAYSTAT021 [ ]
Remote Potentiometer (BAYECON054,055A) .....	BAYSTAT023 [ ]
Cooling only W/Fan SW (TCC-F1) .....	BAYSTAT304 [ ]
Heat/Cool Vertical (TCC-F) .....	BAYSTAT305 [ ]
Prog. Auto. 1-Stage Htg/Clg (TCC-F) .....	BAYSTAT004B [ ]
Auto. 2-Stage Htg/Clg (TCC-F) .....	BAYSTAT010 [ ]
Relay, Auto. 2-Stage Htg/Clg (w/BAYSTAT010) .....	BAYRLAY001 [ ]
Roof Curb (Flat Roof) (TCC-F) ③ .....	BAYCURB030A [ ]
Roof Curb (Flat Roof) (TCC040,050F) ③ .....	BAYCURB034A [ ]
0-25% Manual Fresh Air Damper (TCC030FD) ① .....	BAYDMPR040A [ ]
0-25% Manual Fresh Air Damper (TCC040,050FD) ① .....	BAYDMPR041A [ ]
12" Round Duct Adapter (2 per box) (TCC030F) .....	BAYDUCT004A [ ]
14" Round Duct Adapter (1 per box) (TCC030F) .....	BAYDUCT005A [ ]
0-100% Mod. Economizer w/Baro. Relief (TCC030F) ②④⑤ .....	BAYECON054A [ ]
0-100% Mod. Economizer w/Baro. Relief (TCC040,050F) ②④⑤ .....	BAYECON055A [ ]
0-100% Horizontal Economizer ②④ .....	BAYECON073A [ ]
Enthalpy Control (solid state) (TCC-F) ④ .....	BAYENTH001A [ ]
Filter Frame (20x25x1" filter not incl.) TCC030F ② .....	BAYFLTR012A [ ]
Filter Frame (3-10x25x1" filters not incl.) TCC040,050F ② .....	BAYFLTR014A [ ]
Lifting Lug Kit (TCC-F) .....	BAYLIFT002A [ ]
Evaporator Defrost Control (Low Ambient Cool) Kit (TCC-F) ① .....	BAYLOAM011A [ ]
Condenser Coil Guard (TCC030F) .....	BAYGARD018A [ ]
Condenser Coil Guard (TCC040,050F) .....	BAYGARD021A [ ]
High Static Motor (TCC030F) (3/4 hp) .....	BAYHSMT043A [ ]
High Static Motor (TCC040,050F) (1 hp) .....	BAYHSMT044A [ ]
Anti-Short Cycle Timer .....	BAYASCT001 [ ]
Crankcase Heater (TCC030-050F) ① .....	BAYCCHT003A [ ]

**Notes:**

① Low Ambient cooling requires crankcase heater.

② Must use filter frame when economizer/fresh air kit is used.

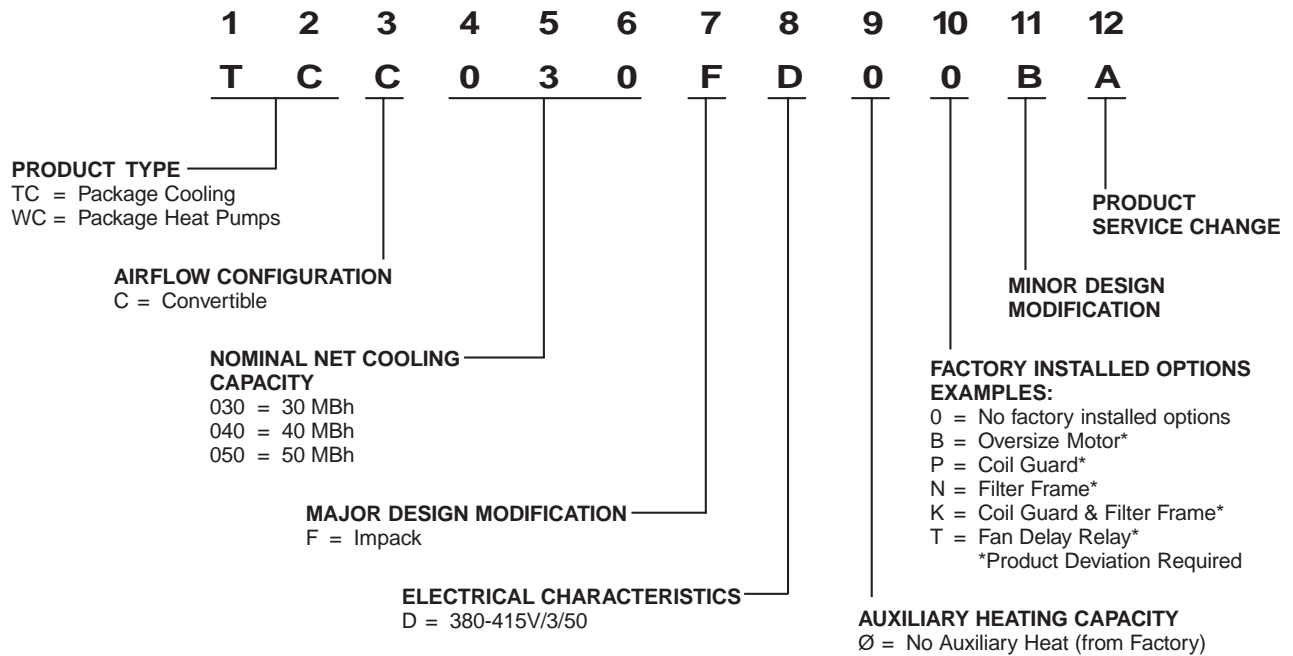
③ Ships knocked down.

④ Dry bulb control standard with economizer.

⑤ Downflow only.

# Selection Procedure

## Model Number Nomenclature





# General Data

## English Units

MODEL	TCC030FD00B	TCC040FD00B	TCC050FD00A
<b>RATED VOLTS/PH/Hz</b>	380-415/3/50	380-415/3/50	380-415/3/50
<b>A.R.I. RATING</b>			
RATINGS (COOLING) ①			
BTUH	30500	43000	53500
INDOOR AIR FLOW (CFM)	1000	1330	1670
POWER INPUT (kW)	3.25	4.27	5.63
EER-95 (BTU/WATT-HR.) ⑥	9.40	9.50	9.50
EER-82	10.85	10.50	10.50
NOISE RATING NO. ②	8.0	8.4	8.4
<b>POWER CONNS. — V/PH/Hz</b>	380-415/3/50	380-415/3/50	380-415/3/50
MIN. BRCH. CIR. AMPACITY ③	10.5	12.2	16.3
FUSE SIZE - MAX.(AMPS)	15	15	25
FUSE SIZE - RECMD.(AMPS)	15	15	25
<b>COMPRESSOR</b>	CLIMATUFF®	CLIMATUFF®	CLIMATUFF®
NO. USED - NO. SPEEDS	1 - 1	1 -	1 -
VOLTS/PH/Hz	380-415/3/50	380-415/3/50	380-415/3/50
R.L. AMPS	5.9	6.7	9.8
L.R. AMPS	51	51	71
BRCH. CIR. SELEC. CUR. AMPS	4.2	7.1	10.0
<b>OUTDOOR COIL — TYPE</b>	PLATE FIN	PLATE FIN	PLATE FIN
ROWS / F.P.I.	2 / 15	2 / 15	3 / 15
FACE AREA (SQ. FT.)	6.34	9.2	9.2
TUBE SIZE (IN.)	3/8 COPPER	3/8	3/8
<b>INDOOR COIL — TYPE</b>	PLATE FIN	PLATE FIN	PLATE FIN
ROWS / F.P.I.	3 / 15	3 / 15	4 / 15
FACE AREA (SQ. FT.)	3.96	5.4	5.4
TUBE SIZE (IN.)	3/8 COPPER	3/8	3/8
REFRIGERANT CONTROL	CAP TUBE	CAPILLARY	TXV BLEED
DRAIN CONN. SIZE (IN.)	3/4 FEMALE NPT	3/4 FEMALE	3/4 FEMALE
DUCT CONNECTIONS	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
<b>OUTDOOR FAN — TYPE</b>	PROPELLER	PROPELLER	PROPELLER
NO. USED / DIA. (IN.)	1 / 18	1 / 22	1 / 22
TYPE DRIVE / NO. SPEEDS	DIRECT / 1	DIRECT / 1	DIRECT / 1
CFM @ 0.0 IN. W.G. ④	1920	2930	2830
NO. MOTORS - HP	1 - 1/2	1 - 1/2	1 - 1/2
MOTOR SPEED R.P.M.	900	900	900
VOLTS/PH/Hz	380-415/1/50	380-415/1/50	380-415/1/50
F.L. AMPS - L.R. AMPS	1.7 - 3.8	1.7 - 3.8	1.7 - 3.8
<b>INDOOR FAN — TYPE</b>	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
DIA. X WIDTH (IN.)	10 X 9	11 X 11	11 X 11
NO. USED	1	1	1
DRIVE / SPEEDS (NO.)	DIRECT / 2	DIRECT / 2	DIRECT / 2
CFM VS. IN. W.G. ⑤	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE
NO. MOTORS - HP	1 - 1/3	1 - 3/4	1 - 3/4
MOTOR SPEED R.P.M.	900	900	900
VOLTS/PH/Hz	380-415/1/50	380-415/1/50	380-415/1/50
F.L. AMPS - L.R. AMPS	1.1 - 2.6	2.1 - 4.8	2.1 - 4.8
<b>FILTER — FURNISHED?</b>	NO	NO	NO
TYPE RECOMMENDED	THROWAWAY	THROWAWAY	THROWAWAY
NO. - SIZE - THICKNESS (IN.)	3 - 10 x 25	3 - 10 x 25	3 - 10 x 25
<b>REFRIGERANT</b>			
CHARGE (LBS. OF R-22)	5.8 LBS	10 LBS. 1 OZ.	10 LBS. 1 OZ.
<b>DIMENSIONS</b>			
CRATED (IN.)	H X W X D 35-1/4 X 38 X 57	H X W X D 39-3/8 X 47 X 66	H X W X D 39-3/8 X 47 X 66
UNCRATED	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
<b>WEIGHT</b>			
SHIPPING (LBS.) / NET (LBS.)	380 / 340	536 / 486	554 / 504

**NOTES:**

① RATED IN ACCORDANCE WITH A.R.I. STANDARD 210/240.

② CALCULATED IN ACCORDANCE WITH A.R.I. STANDARD 270.

③ CALCULATED IN ACCORDANCE WITH CURRENTLY PREVAILING NATL. ELECTRIC CODE.

④ STANDARD AIR - DRY COIL - OUTDOOR

⑤ STANDARD AIR - WET COIL - INDOOR

⑥ RATED IN ACCORDANCE WITH D.O.E. TEST PROCEDURE.





# General Data

# Metric Units

MODEL	TCC030FD00B	TCC040FD00B	TCC050FD00A
<b>RATED VOLTS/PH/Hz</b>	380-415/3/50	380-415/3/50	380-415/3/50
<b>A.R.I. RATING</b>			
RATINGS (COOLING) ①			
CAPACITY (WATTS)	8939	12602	15679
INDOOR AIR FLOW (CMH)	1690	2250	2822
POWER INPUT (kW)	3.25	4.27	5.63
EER-95/SEER (BTU/WATT-HR.) ⑥	9.40 / 9.70	9.50 / 10.00	9.50 / 9.70
EER-82	10.85	10.50	10.50
NOISE RATING NO. ②	8.0	8.4	8.4
<b>POWER CONNS. — V/PH/Hz</b>	380-415/3/50	380-415/3/50	380-415/3/50
MIN. BRCH. CIR. AMPACITY ③	10.5	12.2	16.3
FUSE SIZE - MAX.(AMPS)	15	15	25
FUSE SIZE - RECMD.(AMPS)	15	15	25
<b>COMPRESSOR</b>	CLIMATUFF®	CLIMATUFF®	CLIMATUFF®
NO. USED - NO. SPEEDS	1 - 1	1 -	1 -
VOLTS/PH/Hz	380-415/3/50	380-415/3/50	380-415/3/50
R.L. AMPS	5.9	6.7	9.8
L.R. AMPS	51	51	71
BRCH. CIR. SELEC. CUR. AMPS	4.2	7.1	10.0
<b>OUTDOOR COIL — TYPE</b>	PLATE FIN	PLATE FIN	PLATE FIN
ROWS / FINS PER MILLIMETER	2 / .591	2 / .591	3 / .591
FACE AREA (SQ. M)	.589	.855	.855
TUBE SIZE (IN.)	3/8 COPPER	3/8	3/8
<b>INDOOR COIL — TYPE</b>	PLATE FIN	PLATE FIN	PLATE FIN
ROWS / FINS PER MILLIMETER	3 / .591	3 / .591	4 / .591
FACE AREA (SQ. M)	.368	.502	.502
TUBE SIZE (IN.)	3/8 COPPER	3/8	3/8
REFRIGERANT CONTROL	CAP TUBE	CAPILLARY	TXV BLEED
DRAIN CONN. SIZE (IN.)	3/4 FEMALE NPT	3/4 FEMALE	3/4 FEMALE
DUCT CONNECTIONS	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
<b>OUTDOOR FAN — TYPE</b>	PROPELLER	PROPELLER	PROPELLER
NO. USED / DIA. (MM)	1 / .457	1 / .559	1 / .559
TYPE DRIVE / NO. SPEEDS	DIRECT / 1	DIRECT / 1	DIRECT / 1
AIRFLOW (CMH) @ 0.0 PASCALS ④	3245	4952	4782
NO. MOTORS - HP	1 - 1/2	1 - 1/2	1 - 1/2
MOTOR SPEED R.P.M.	900	900	900
VOLTS/PH/Hz	380-415/1/50	380-415/1/50	380-415/1/50
F.L. AMPS - L.R. AMPS	1.7 - 3.8	1.7 - 3.8	1.7 - 3.8
<b>INDOOR FAN — TYPE</b>	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
DIA. X WIDTH (MM)	254 X 229	279 X 279	279 X 279
NO. USED	1	1	1
DRIVE / SPEEDS (NO.)	DIRECT / 2	DIRECT / 2	DIRECT / 2
AIRFLOW (CMH) VS. PASCALS ⑤	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE
NO. MOTORS - HP	1 - 1/3	1 - 3/4	1 - 3/4
MOTOR SPEED R.P.M.	900	900	900
VOLTS/PH/Hz	380-415/1/50	380-415/1/50	380-415/1/50
F.L. AMPS - L.R. AMPS	1.1 - 2.6	2.1 - 4.8	2.1 - 4.8
<b>FILTER — FURNISHED?</b>	NO	NO	NO
TYPE RECOMMENDED	THROWAWAY	THROWAWAY	THROWAWAY
NO. - SIZE - THICKNESS (MM)	3 - 254 x 635	3 - 254 x 635	3 - 254 x 635
<b>REFRIGERANT</b>			
CHARGE (KG OF R-22)	2.63 KG	4.5KG	4.54 KG
<b>DIMENSIONS</b>			
CRATED (MM)	H X W X D 895 X 965 X 1448	H X W X D 1000 X 1194 X 1676	H X W X D 1000 X 1194 X 1676
UNCRATED	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
<b>WEIGHT</b>			
SHIPPING (KG) / NET (KG)	172 / 154	251 / 229	251 / 229

**NOTES:**

- ① RATED IN ACCORDANCE WITH A.R.I. STANDARD 210/240.
- ② CALCULATED IN ACCORDANCE WITH A.R.I. STANDARD 270.
- ③ CALCULATED IN ACCORDANCE WITH CURRENTLY PREVAILING NATL. ELECTRIC CODE.
- ④ STANDARD AIR - DRY COIL - OUTDOOR
- ⑤ STANDARD AIR - WET COIL - INDOOR
- ⑥ RATED IN ACCORDANCE WITH D.O.E. TEST PROCEDURE.



# Performance Data Cooling

# English Units

## TCC030FD00B AT 1000 CFM (GROSS CAPACITY IN BTUH/1000)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP.					COMPR. KW
			72	74	76	78	80	
85	59	28.9	23.6	25.4	27.3	29.0*	29.7*	2.23
	63	31.1	20.1	21.9	23.7	25.5	27.4	2.31
	67	33.4	16.2	18.0	19.8	21.6	23.4	2.40
	71	35.7	12.2	14.0	15.8	17.6	19.4	2.50
90	59	28.3	23.4	25.2	27.0	28.5*	29.3*	2.34
	63	30.5	19.8	21.6	23.5	25.3	27.1	2.43
	67	32.7	15.9	17.7	19.5	21.4	23.2	2.52
	71	35.0	11.9	13.7	15.5	17.3	19.2	2.61
95	59	27.8	23.1	24.9	26.8	28.1*	28.8*	2.45
	63	29.8	19.6	21.4	23.2	25.0	26.8	2.54
	67	32.0	15.6	17.4	19.3	21.1	22.9	2.64
	71	34.2	11.6	13.4	15.3	17.1	18.9	2.73
100	59	26.9	22.8	24.6	26.4	27.5*	28.1*	2.58
	63	28.9	19.2	21.0	22.8	24.6	26.5	2.67
	67	31.0	15.3	17.1	18.9	20.7	22.5	2.76
	71	33.2	11.2	13.0	14.9	16.7	18.5	2.86
105	59	26.1	22.4	24.2	26.0	26.8*	27.4*	2.71
	63	28.0	18.8	20.6	22.5	24.3	26.1	2.80
	67	30.0	14.9	16.7	18.5	20.3	22.1	2.89
	71	32.1	10.9	12.7	14.5	16.3	18.1	2.99
115	59	24.5	21.7	23.5	24.8*	25.4*	25.9*	2.97
	63	26.2	18.1	19.9	21.7	23.5	25.3	3.06
	67	28.1	14.1	15.9	17.8	19.6	21.4	3.15
	71	30.0	10.1	11.9	13.7	15.5	17.4	3.24

### CORRECTION FACTORS - OTHER AIRFLOWS (MULTIPLY OR ADD AS INDICATED)

AIRFLOW	875	1125
TOTAL CAP.	X0.98	X1.02
SENS. CAP.	X0.94	X1.05
COMPR. KW	X0.99	X1.01

VALUES AT 95/80/67 RATING CONDITIONS

**GROSS CAPACITY = 32000 BTUH**  
 AIRFLOW = 1000 CFM  
 COMPRESSOR POWER = 2635 WATTS  
 I.D. FAN POWER = 350 WATTS  
 O.D. FAN POWER = 260 WATTS  
 E.E.R. = 9.40 BTUH/WATT

NOTE: RATED WITH 25 FEET OF 7/8  
 SUCT. AND 3/8 LIQUID LINE

\* DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)  
 TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY  
 FOR WET COIL  
 ALL TEMPERATURES IN DEGREES F.

## TCC040FD00B AT 1325 CFM (GROSS CAPACITY IN BTUH/1000)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP.					COMPR. KW
			72	74	76	78	80	
85	59	40.2	32.6	35.1	37.5	40.0	41.1*	2.95
	63	43.3	27.9	30.3	32.8	35.2	37.7	3.04
	67	46.5	22.6	25.1	27.5	30.0	32.4	3.14
	71	49.9	17.3	19.7	22.2	24.6	27.1	3.23
90	59	39.4	32.3	34.7	37.2	39.5*	40.5*	3.12
	63	42.5	27.5	30.0	32.4	34.9	37.3	3.21
	67	45.6	22.3	24.7	27.2	29.6	32.1	3.30
	71	48.9	16.9	19.3	21.8	24.2	26.7	3.40
95	59	38.7	31.9	34.4	36.8	38.9*	39.9*	3.29
	63	41.7	27.2	29.6	32.1	34.5	37.0	3.37
	67	44.7	21.9	24.4	26.8	29.3	31.7	3.47
	71	47.9	16.5	19.0	21.4	23.9	26.3	3.56
100	59	37.5	31.4	33.9	36.3	38.0*	39.0*	3.47
	63	40.4	26.7	29.1	31.6	34.0	36.4	3.55
	67	43.4	21.4	23.8	26.3	28.7	31.2	3.64
	71	46.5	16.0	18.4	20.9	23.3	25.8	3.73
105	59	36.4	30.9	33.4	35.8	37.2*	38.0*	3.65
	63	39.2	26.1	28.6	31.0	33.5	35.9	3.73
	67	42.0	20.8	23.3	25.7	28.2	30.6	3.82
	71	45.0	15.4	17.9	20.3	22.8	25.2	3.91
115	59	34.1	29.9	32.3	34.3*	35.2*	36.1*	4.02
	63	36.6	25.1	27.5	30.0	32.4	34.9	4.10
	67	39.3	19.8	22.2	24.7	27.1	29.6	4.17
	71	42.0	14.4	16.8	19.3	21.7	24.2	4.25

### CORRECTION FACTORS - OTHER AIRFLOWS (MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1150	1500
TOTAL CAP.	X0.98	X1.01
SENS. CAP.	X0.94	X1.05
COMPR. KW	X0.99	X1.01

VALUES AT 95/80/67 RATING CONDITIONS

**GROSS CAPACITY = 44800 BTUH**  
 AIRFLOW = 1325 CFM  
 COMPRESSOR POWER = 3466 WATTS  
 I.D. FAN POWER = 510 WATTS  
 O.D. FAN POWER = 550 WATTS  
 E.E.R. = 9.50 BTUH/WATT

NOTE: RATED WITH 25 FEET OF 7/8  
 SUCT. AND 3/8 LIQUID LINE

\* DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)  
 TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY  
 FOR WET COIL  
 ALL TEMPERATURES IN DEGREES F.

## TCC050FD00A AT 1675 CFM (GROSS CAPACITY IN BTUH/1000)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP.					COMPR. KW
			72	74	76	78	80	
85	59	51.0	42.8	46.1	49.4	51.6*	52.9*	3.80
	63	54.6	36.3	39.6	42.9	46.2	49.5	3.90
	67	58.5	29.1	32.4	35.7	39.0	42.4	4.00
	71	62.5	21.8	25.1	28.4	31.7	35.0	4.11
90	59	49.8	42.3	45.6	48.9	50.8*	51.9*	4.01
	63	53.4	35.8	39.1	42.4	45.7	49.0	4.10
	67	57.2	28.6	31.9	35.2	38.5	41.8	4.20
	71	61.0	21.2	24.5	27.9	31.2	34.5	4.31
95	59	48.7	41.8	45.1	48.4	49.9*	51.0*	4.22
	63	52.2	35.2	38.6	41.9	45.2	48.5	4.31
	67	55.8	28.0	31.4	34.7	38.0	41.3	4.40
	71	59.6	20.7	24.0	27.3	30.6	34.0	4.50
100	59	47.2	41.1	44.4	47.4*	48.5*	49.6*	4.43
	63	50.5	34.5	37.8	41.1	44.5	47.8	4.52
	67	54.0	27.3	30.6	33.9	37.2	40.6	4.60
	71	57.5	20.0	23.3	26.6	29.9	33.2	4.69
105	59	45.6	40.4	43.7	46.1*	47.2*	48.2*	4.65
	63	48.8	33.8	37.1	40.4	43.7	47.1	4.73
	67	52.1	26.6	29.9	33.2	36.5	39.8	4.80
	71	55.5	19.2	22.5	25.9	29.2	32.5	4.89
115	59	42.4	39.0	42.3	43.5*	44.5*	45.4*	5.09
	63	45.4	32.4	35.7	39.0	42.3	45.4*	5.15
	67	48.4	25.1	28.4	31.8	35.1	38.4	5.21
	71	51.5	17.8	21.1	24.4	27.7	31.0	5.27

### CORRECTION FACTORS - OTHER AIRFLOWS (MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1450	1900
TOTAL CAP.	X0.98	X1.01
SENS. CAP.	X0.94	X1.06
COMPR. KW	X0.99	X1.01

VALUES AT 95/80/67 RATING CONDITIONS

**GROSS CAPACITY = 55900 BTUH**  
 AIRFLOW = 1675 CFM  
 COMPRESSOR POWER = 4402 WATTS  
 I.D. FAN POWER = 680 WATTS  
 O.D. FAN POWER = 550 WATTS  
 E.E.R. = 9.50 BTUH/WATT

NOTE: RATED WITH 25 FEET OF 7/8  
 SUCT. AND 3/8 LIQUID LINE

\* DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)  
 TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY  
 FOR WET COIL  
 ALL TEMPERATURES IN DEGREES F.



# Performance Data Cooling

# Metric Units

## TCC030FD00B AT 1698 CMH (GROSS CAPACITY IN KILOWATTS)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP.					COMPR. KW
			22.2	23.3	24.4	25.6	26.7	
29.4	15.0	8.5	6.9	7.4	8.0	8.5*	8.7*	2.2
	17.2	9.1	5.9	6.4	6.9	7.5	8.0	2.3
	19.4	9.8	4.7	5.3	5.8	6.3	6.9	2.4
	21.7	10.5	3.6	4.1	4.6	5.2	5.7	2.5
32.2	15.0	8.3	6.9	7.4	7.9	8.4*	8.6*	2.3
	17.2	8.9	5.8	6.3	6.9	7.4	7.9	2.4
	19.4	9.6	4.7	5.2	5.7	6.3	6.8	2.5
	21.7	10.3	3.5	4.0	4.5	5.1	5.6	2.6
35.0	15.0	8.1	6.8	7.3	7.9	8.2*	8.4*	2.5
	17.2	8.7	5.7	6.3	6.8	7.3	7.9	2.5
	19.4	9.4	4.6	5.1	5.7	6.2	6.7	2.6
	21.7	10.0	3.4	3.9	4.5	5.0	5.5	2.7
37.8	15.0	7.9	6.7	7.2	7.7	8.1*	8.2*	2.6
	17.2	8.5	5.6	6.2	6.7	7.2	7.8	2.7
	19.4	9.1	4.5	5.0	5.5	6.1	6.6	2.8
	21.7	9.7	3.3	3.8	4.4	4.9	5.4	2.9
40.6	15.0	7.6	6.6	7.1	7.6	7.9*	8.0*	2.7
	17.2	8.2	5.5	6.0	6.6	7.1	7.6	2.8
	19.4	8.8	4.4	4.9	5.4	5.9	6.5	2.9
	21.7	9.4	3.2	3.7	4.2	4.8	5.3	3.0
46.1	15.0	7.2	6.4	6.9	7.3*	7.4*	7.6*	3.0
	17.2	7.7	5.3	5.8	6.4	6.9	7.4	3.1
	19.4	8.2	4.1	4.7	5.2	5.7	6.3	3.2
	21.7	8.8	3.0	3.5	4.0	4.5	5.1	3.2

### CORRECTION FACTORS - OTHER AIRFLOWS (MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1486	1910
TOTAL CAP.	X0.98	X1.02
SENS. CAP.	X0.94	X1.05
COMPR. KW	X0.99	X1.01

### VALUES AT ARI RATING CONDITIONS

**GROSS CAPACITY = 9376 KW**  
 AIRFLOW = 1698 CMH  
 COMPRESSOR POWER = 2635 WATTS  
 I.D. FAN POWER = 350 WATTS  
 O.D. FAN POWER = 260 WATTS  
 E.E.R. = 9.40 BTUH/WATT

NOTE: RATED WITH 7.62 METERS OF 7/8 IN.  
 SUCT. AND 3/8 IN. LIQUID LINES

**\* DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)  
 TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY  
 FOR WET COIL**  
 ALL TEMPERATURES IN DEGREES C.

## TCC040FD00B AT 2250 CMH (GROSS CAPACITY IN KILOWATTS)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP.					COMPR. KW
			22.2	23.3	24.4	25.6	26.7	
29.4	15.0	11.8	9.6	10.3	11.0	11.7	12.0*	3.0
	17.2	12.7	8.2	8.9	9.6	10.3	11.0	3.0
	19.4	13.6	6.6	7.4	8.1	8.8	9.5	3.1
	21.7	14.6	5.1	5.8	6.5	7.2	7.9	3.2
32.2	15.0	11.5	9.5	10.2	10.9	11.6*	11.9*	3.1
	17.2	12.5	8.1	8.8	9.5	10.2	10.9	3.2
	19.4	13.4	6.5	7.2	8.0	8.7	9.4	3.3
	21.7	14.3	5.0	5.7	6.4	7.1	7.8	3.4
35.0	15.0	11.3	9.3	10.1	10.8	11.4*	11.7*	3.3
	17.2	12.2	8.0	8.7	9.4	10.1	10.8	3.4
	19.4	13.1	6.4	7.1	7.9	8.6	9.3	3.5
	21.7	14.0	4.8	5.6	6.3	7.0	7.7	3.6
37.8	15.0	11.0	9.2	9.9	10.6	11.1*	11.4*	3.5
	17.2	11.8	7.8	8.5	9.3	10.0	10.7	3.5
	19.4	12.7	6.3	7.0	7.7	8.4	9.1	3.6
	21.7	13.6	4.7	5.4	6.1	6.8	7.6	3.7
40.6	15.0	10.7	9.1	9.8	10.5	10.9*	11.1*	3.7
	17.2	11.5	7.6	8.4	9.1	9.8	10.5	3.7
	19.4	12.3	6.1	6.8	7.5	8.3	9.0	3.8
	21.7	13.2	4.5	5.2	5.9	6.7	7.4	3.9
46.1	15.0	10.0	8.8	9.5	10.0*	10.3*	10.6*	4.0
	17.2	10.7	7.4	8.1	8.8	9.5	10.2	4.1
	19.4	11.5	5.8	6.5	7.2	7.9	8.7	4.2
	21.7	12.3	4.2	4.9	5.7	6.4	7.1	4.3

### CORRECTION FACTORS - OTHER AIRFLOWS (MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1953	2547
TOTAL CAP.	X0.98	X1.01
SENS. CAP.	X0.94	X1.05
COMPR. KW	X0.99	X1.01

### VALUES AT ARI RATING CONDITIONS

**GROSS CAPACITY = 13126 KW**  
 AIRFLOW = 2250 CMH  
 COMPRESSOR POWER = 3466 WATTS  
 I.D. FAN POWER = 510 WATTS  
 O.D. FAN POWER = 550 WATTS  
 E.E.R. = 9.50 BTUH/WATT

NOTE: RATED WITH 7.62 METERS OF 7/8 IN.  
 SUCT. AND 3/8 IN. LIQUID LINES

**\* DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)  
 TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY  
 FOR WET COIL**  
 ALL TEMPERATURES IN DEGREES C.

## TCC050FD00A AT 2845 CMH (GROSS CAPACITY IN KILOWATTS)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP.					COMPR. KW
			22.2	23.3	24.4	25.6	26.7	
29.4	15.0	14.9	12.5	13.5	14.5	15.1*	15.5*	3.8
	17.2	16.0	10.6	11.6	12.6	13.5	14.5	3.9
	19.4	17.1	8.5	9.5	10.5	11.4	12.4	4.0
	21.7	18.3	6.4	7.4	8.3	9.3	10.3	4.1
32.2	15.0	14.6	12.4	13.4	14.3	14.9*	15.2*	4.0
	17.2	15.6	10.5	11.5	12.4	13.4	14.4	4.1
	19.4	16.8	8.4	9.3	10.3	11.3	12.2	4.2
	21.7	17.9	6.2	7.2	8.2	9.1	10.1	4.3
35.0	15.0	14.3	12.2	13.2	14.2	14.6*	14.9*	4.2
	17.2	15.3	10.3	11.3	12.3	13.2	14.2	4.3
	19.4	16.3	8.2	9.2	10.2	11.1	12.1	4.4
	21.7	17.5	6.1	7.0	8.0	9.0	10.0	4.5
37.8	15.0	13.8	12.0	13.0	13.9*	14.2*	14.5*	4.4
	17.2	14.8	10.1	11.1	12.0	13.0	14.0	4.5
	19.4	15.8	8.0	9.0	9.9	10.9	11.9	4.6
	21.7	16.8	5.9	6.8	7.8	8.8	9.7	4.7
40.6	15.0	13.4	11.8	12.8	13.5*	13.8*	14.1*	4.7
	17.2	14.3	9.9	10.9	11.8	12.8	13.8	4.7
	19.4	15.3	7.8	8.8	9.7	10.7	11.7	4.8
	21.7	16.3	5.6	6.6	7.6	8.6	9.5	4.9
46.1	15.0	12.4	11.4	12.4	12.7*	13.0*	13.3*	5.1
	17.2	13.3	9.5	10.5	11.4	12.4	13.3*	5.2
	19.4	14.2	7.4	8.3	9.3	10.3	11.3	5.2
	21.7	15.1	5.2	6.2	7.1	8.1	9.1	5.3

### CORRECTION FACTORS - OTHER AIRFLOWS (MULTIPLY OR ADD AS INDICATED)

AIRFLOW	2462	3227
TOTAL CAP.	X0.98	X1.01
SENS. CAP.	X0.94	X1.06
COMPR. KW	X0.99	X1.01

### VALUES AT ARI RATING CONDITIONS

**GROSS CAPACITY = 16379 KW**  
 AIRFLOW = 2845 CMH  
 COMPRESSOR POWER = 4402 WATTS  
 I.D. FAN POWER = 680 WATTS  
 O.D. FAN POWER = 550 WATTS  
 E.E.R. = 9.50 BTUH/WATT

NOTE: RATED WITH 7.62 METERS OF 7/8 IN.  
 SUCT. AND 3/8 IN. LIQUID LINES

**\* DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)  
 TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY  
 FOR WET COIL**  
 ALL TEMPERATURES IN DEGREES C.



# Performance Data

**Indoor Blower Performances TCC030FD**

Air Flow CFM (CMH) [2]	High Speed [1]			Low Speed		
	Press IN. W.G. (PA)	PWR Watts	BHP	Press IN. W.G. (PA)	PWR Watts	BHP
750 (1270)	0.58 (145)	220	0.17	0.43 (107)	218	0.17
790 (1335)	0.56 (140)	227	0.17	0.39 (97)	225	0.18
830 (1400)	0.53 (132)	234	0.18	0.34 (85)	231	0.19
880 (1490)	0.50 (125)	241	0.19	0.28 (70)	239	0.20
920 (1554)	0.47 (117)	247	0.20	0.20 (50)	247	0.21
960 (1622)	0.44 (110)	254	0.20	0.10 (25)	254	—
1000 (1690)	0.40 (100)	260	0.21	—	—	—
1040 (1757)	0.36 (90)	267	0.21	—	—	—
1080 (1825)	0.32 (80)	274	0.22	—	—	—
1130 (1910)	0.26 (65)	281	0.23	—	—	—
1170 (1977)	0.21 (52)	287	0.24	—	—	—
1210 (2045)	0.13 (32)	293	0.24	—	—	—
1250 (2112)	0.05 (12)	300	0.25	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

[1] Factory setting at HI speed

[2] Wet coil, no filter, no heater

**Indoor Blower Performances TCC040FD**

Air Flow CFM (CMH) [3]	High Speed			Low Speed [1]		
	Press IN. W.G. (PA)	PWR Watts	BHP	Press IN. W.G. (PA)	PWR Watts	BHP
1000 (1690)	—	—	—	0.69 (172)	356	0.27
1040 (1757)	—	—	—	0.67 (167)	365	0.27
1080 (1825)	—	—	—	0.64 (160)	373	0.28
1130 (1910)	—	—	—	0.60 (150)	381	0.28
1170 (1977)	0.73 (183)	431	0.33	0.57 (142)	389	0.29
1210 (2045)	0.70 (175)	440	0.34	0.53 (132)	398	0.29
1250 (2112)	0.67 (167)	450	0.35	0.49 (122)	407	0.29
1290 (2180)	0.65 (162)	459	0.36	0.45 (112)	417	0.29
1330 (2247)	0.63 (157)	469	0.38	0.40 (100)	427	0.29
1380 (2332)	0.59 (147)	478	0.39	0.35 (87)	437	0.28
1420 (2400)	0.56 (140)	488	0.40	0.28 (70)	448	0.28
1460 (2467)	0.53 (132)	498	0.41	0.19 (47)	463	0.26
1500 (2535)	0.50 (125)	508	0.42	0.10 (25)	479	0.24
1540 (2602)	0.47 (117)	518	0.43	0.01 (2.5)	495	0.23
1580 (2670)	0.44 (110)	528	0.44	—	—	—
1630 (2755)	0.41 (102)	537	0.45	—	—	—
1670 (2825)	0.38 (95)	547	0.46	—	—	—
1710 (2890)	0.35 (87)	557	0.47	—	—	—
1750 (2958) [2]	0.31 (77)	567	0.48	—	—	—

[1] Factory setting at LO speed

[2] Water Blow Off Unit

[3] Wet coil, no filter, no heater

**Indoor Blower Performances TCC050FD**

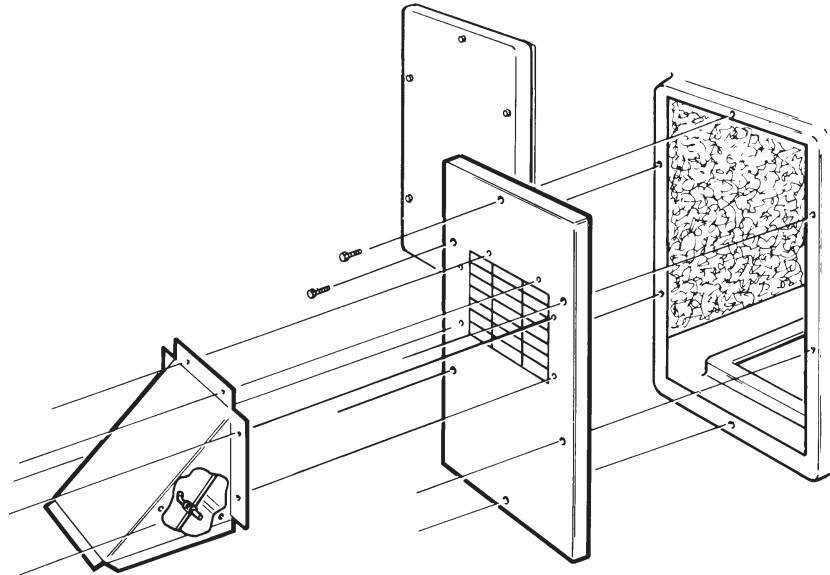
Air Flow CFM (CMH) [2]	High Speed [1]			Low Speed		
	Press IN. W.G. (PA)	PWR Watts	BHP	Press IN. W.G. (PA)	PWR Watts	BHP
1170 (1980)	0.73 (184)	431	0.33	0.60 (150)	414	0.29
1210 (2050)	0.70 (175)	440	0.34	0.55 (137)	423	0.29
1250 (2120)	0.67 (167)	450	0.35	0.51 (127)	432	0.29
1290 (2180)	0.65 (163)	459	0.36	0.47 (117)	442	0.28
1330 (2250)	0.63 (157)	469	0.38	0.42 (105)	451	0.28
1380 (2340)	0.59 (148)	478	0.39	0.39 (97)	460	0.27
1420 (2400)	0.56 (140)	488	0.40	0.35 (87)	469	0.27
1460 (2470)	0.53 (132)	498	0.41	0.31 (77)	479	0.27
1500 (2540)	0.51 (127)	508	0.42	0.28 (70)	488	0.26
1540 (2600)	0.48 (120)	519	0.43	0.24 (60)	497	0.25
1580 (2670)	0.44 (110)	530	0.44	0.21 (52)	506	0.25
1630 (2760)	0.40 (100)	541	0.45	0.17 (42)	516	0.24
1670 (2830)	0.37 (92)	552	0.46	0.14 (35)	525	0.23
1710 (2890)	0.33 (83)	563	0.47	0.10 (25)	534	0.23
1750 (2960)	0.28 (70)	575	0.47	0.07 (17)	544	0.23
1790 (3025)	0.24 (60)	588	0.48	—	—	—
1830 (3090)	0.19 (45)	601	0.49	—	—	—
1880 (3180)	0.15 (37)	608	0.49	—	—	—
1920 (3250)	0.11 (27)	620	0.50	—	—	—
1960 (3315)	0.07 (17)	631	0.52	—	—	—

[1] Factory setting at HI speed

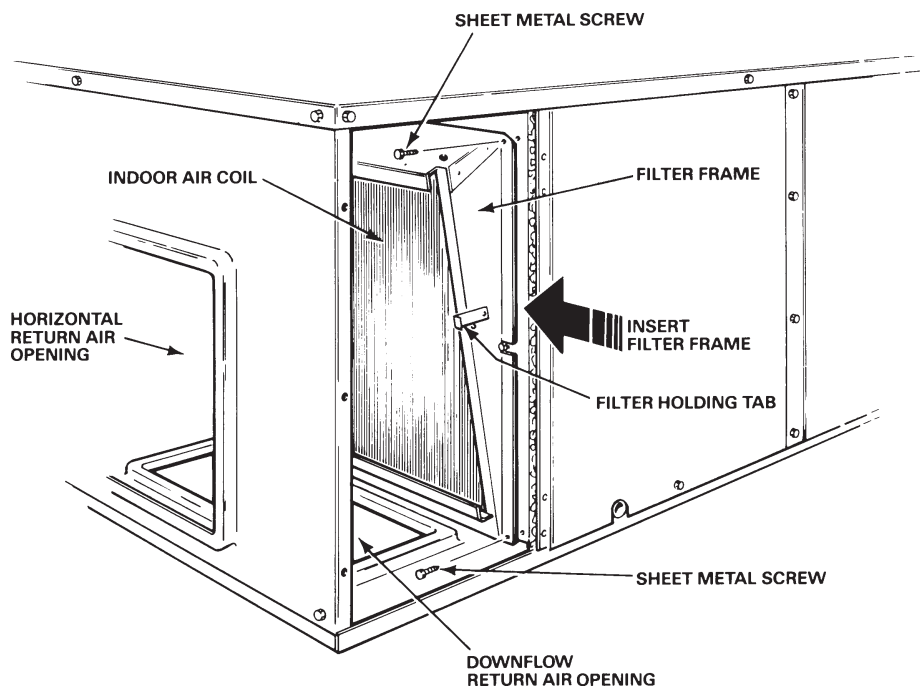
[2] Wet coil, no filter, no heater

# Optional Equipment

## 25% Manual Fresh Air Kit



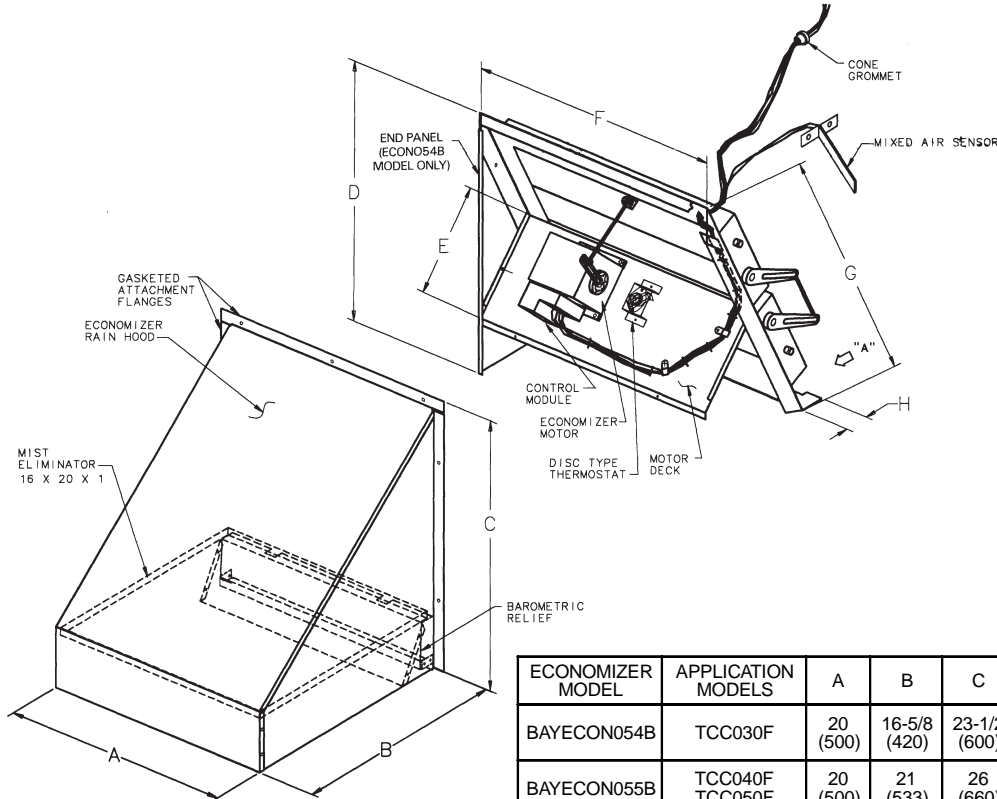
## Typical Filter Frame



# Optional Equipment

## Economizer and Rain Hood (Downflow Applications)

ALL DIMENSIONS ARE IN INCHES (MM)



ECONOMIZER MODEL	APPLICATION MODELS	A	B	C	D	E	F	G	H
BAYECON054B	TCC030F	20 (500)	16-5/8 (420)	23-1/2 (600)	22-9/16 (575)	8-5/8 (220)	22-1/4 (565)	25-1/8 (640)	1-1/2 (38)
BAYECON055B	TCC040F TCC050F	20 (500)	21 (533)	26 (660)	OMIT	12-1/8 (315)	26-1/8 (670)	32-1/8 (820)	1-3/4 (45)

From Dwg. 21D662389 Rev.1

# Controls

## Field Installed Control Options

### Thermostats

Two stages heating/cooling or one stage heating/cooling thermostats are available in either manual or automatic changeover.

### Programmable Electronic Night Setback Thermostat

Heating setback and cooling setup with 7-day, 5-1-1 programming capability. Available in 2 heating/cooling or 1 heating/cooling versions with automatic changeover.

### Economizer Controls

The standard equipment offering is a fixed dry bulb changeover control. In addition to the standard offering, there are two other field installed control accessories.

### Enthalpy Control

Replaces the dry bulb control with a solid state dry bulb and wet bulb changeover controller which has a fully adjustable set point. Enthalpy control offers a higher level of

energy savings potential than the standard dry bulb control due to the additional wet bulb sensing capability.

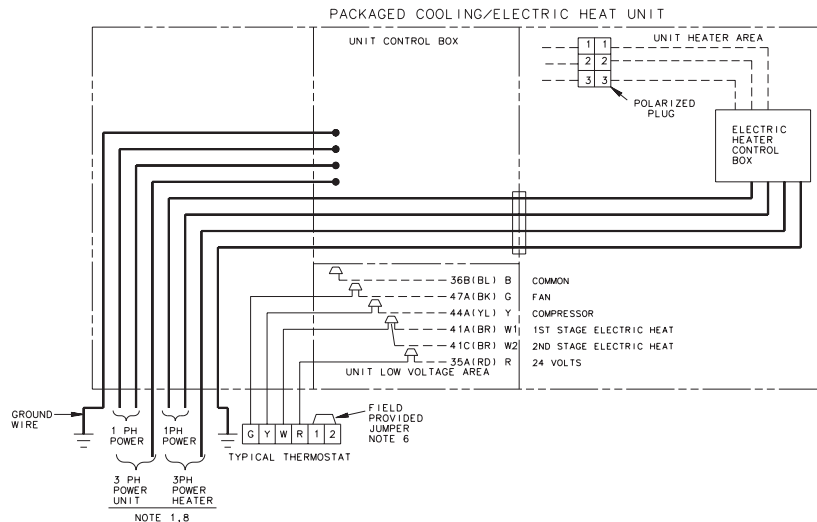
### Differential Enthalpy

Replaces the standard dry bulb control with two enthalpy sensors that compare total heat content of the indoor air and outdoor air to determine the most efficient entering air source. This control option offers the highest level of energy efficiency available.



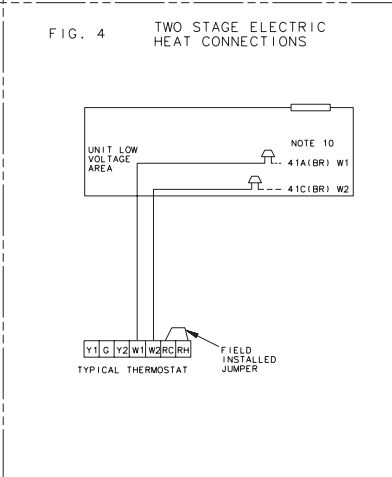
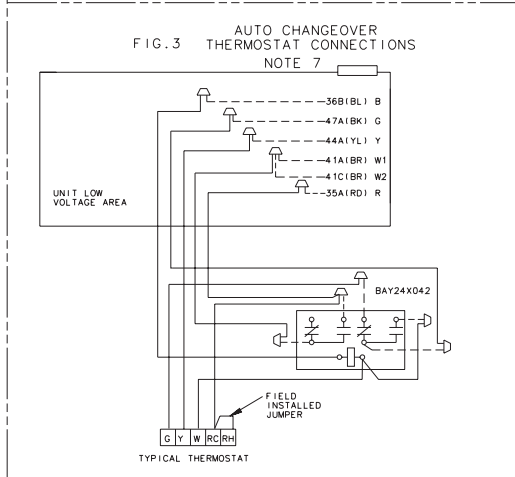
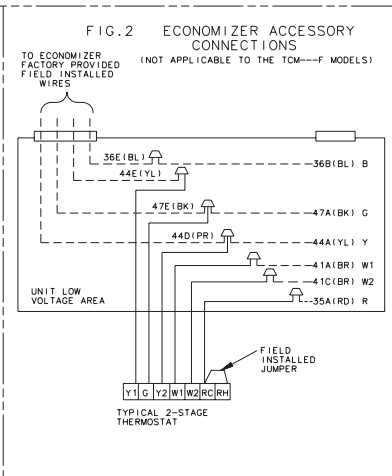
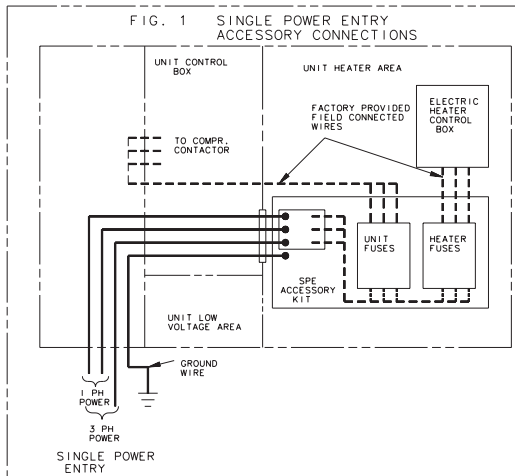
# Field Wiring

## TCC-F Cooling Models



**NOTES:**

1. FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH CODES.
2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE.
3. LOW VOLTAGE WIRING TO BE 18 AWG MINIMUM CONDUCTOR.
4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED.
5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.
6. JUMPER MUST BE CONNECTED BETWEEN 1 AND 2 FOR FAN TO OPERATE IN HEATING.
7. SOME THERMOSTATS PROVIDE THE 'G' SIGNAL IN THE COOLING MODE ONLY. TO PROVIDE THE 'G' SIGNAL IN THE HEATING MODE AN ACCESSORY RELAY IS REQUIRED. SEE FIG 3 FOR PROPER CONNECTIONS.
8. FOR COOLING ONLY OMIT THE ELECTRIC HEATER, ASSOCIATED POWER WIRES, AND THE 'W' SIGNAL THERMOSTAT WIRE.
9. FIG. 4 DEMONSTRATES CONNECTION OF THE TWO STAGE ELECTRIC HEAT THERMOSTAT ACCESSORY ONLY. FOR FURTHER UNIT CONNECTION DETAILS REFER TO THE OTHER FIGURES.
10. THE 41A (BR) WIRE IS FIRST STAGE ELECTRIC HEAT. IF THE ELECTRIC HEATER ACCESSORY HAS TWO HEATING STAGES THE 4C(BR) WIRE IS SECOND STAGE ELECTRIC HEAT.

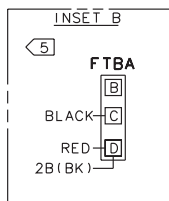
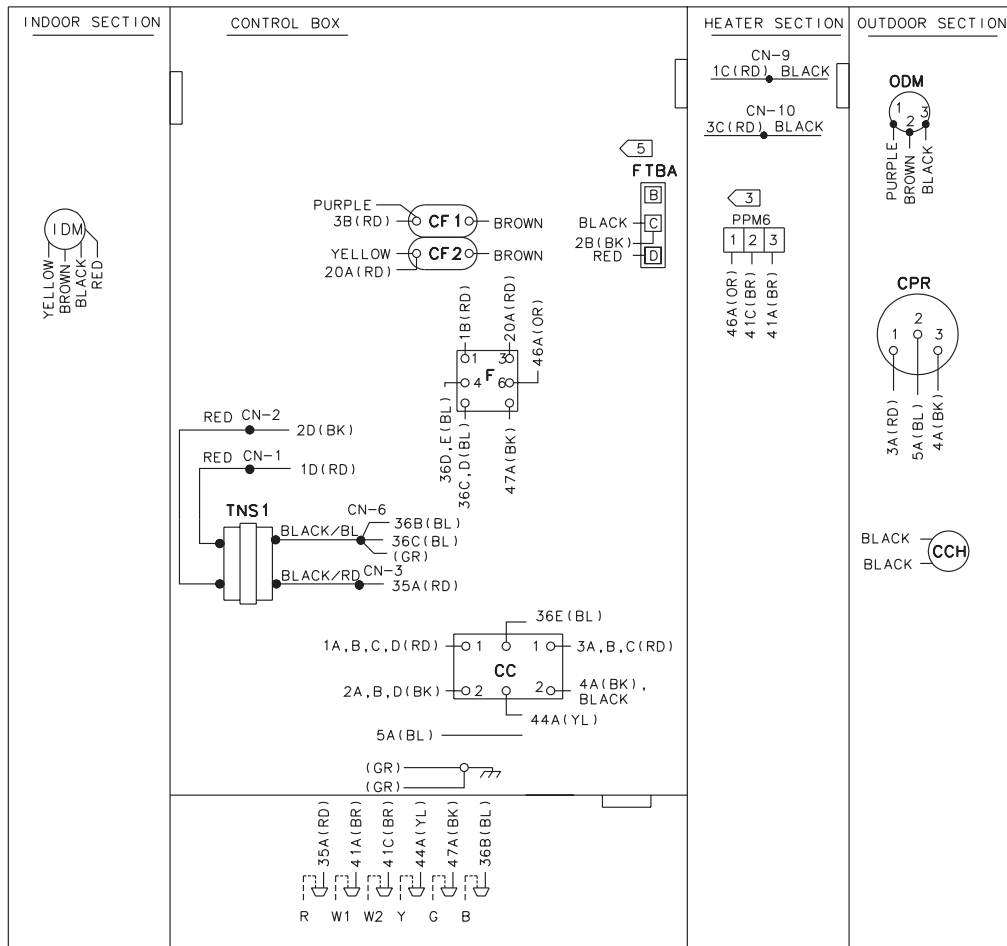


INTER-COMPONENT WIRING  
 - - - - - 24V. LINE V. } FACTORY WIRING  
 - - - - - 24V. LINE V. } FIELD WIRING

WIRE ABBR	COLOR	WIRE ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		

# Field Wiring

## Wiring Diagram for TCC030,040,050FD00B Units



**NOTE**  
THREE PHASE MOTOR (S) FACTORY SUPPLIED IN THIS EQUIPMENT, PROTECTED UNDER PRIMARY SINGLE-PHASE CONDITIONS

ABBR	COLOR	ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		

DEVICE	DESCRIPTION	LINE
AH, BH	CONTACTOR, ELECTRIC HEAT	32, 33
CC	COMPRESSOR CONTACTOR COIL	36
CCH	CRANKCASE HEATER	17
CF1	OUTDOOR FAN CAPACITOR	18
CF2	INDOOR MOTOR CAPACITOR	21
CN	CONNECTOR OR WIRE NUT	
CPR	COMPRESSOR	13
F	INDOOR FAN RELAY COIL	38
FTB	FAN TERMINAL BLOCK	22, 23
IDM	INDOOR FAN MOTOR	22
IOL	INTERNAL OVERLOAD	
ODM	OUTDOOR FAN MOTOR	18
PPM6	HEATER PLUG (FEMALE)	32, 33
TNS1	CONTROL POWER TRANSFORMER	28

**NOTES:**

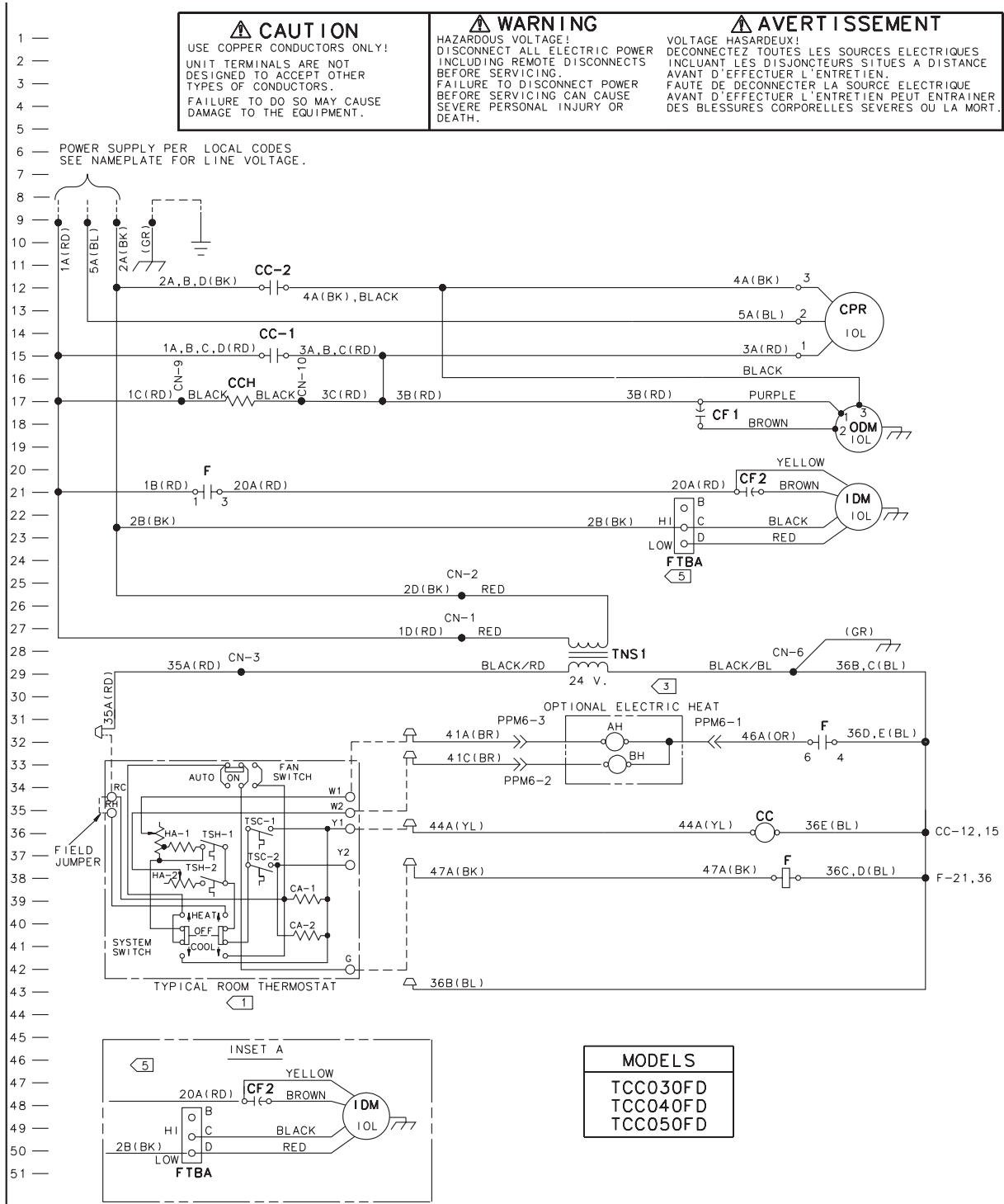
1. CONNECTIONS SHOWN ARE FOR A TYPICAL THERMOSTAT. SEE SCHEMATIC SUPPLIED WITH THERMOSTAT FOR PROPER CONNECTIONS. LOW VOLTAGE WIRING TO UNIT MAY BE NEC CLASS 2 AND MUST BE A MIN. OF 18 A.W.G.
2. MAXIMUM ADDITIONAL EXTERNAL LOAD (PILOT DUTY) BETWEEN "B" AND "R" OF 0.5 AMPS, 24 VAC IS AVAILABLE WHEN A HEATER IS INSTALLED.
3. SEE WIRING DIAGRAM WITH HEATER FOR DETAILS OF HEATER WIRING.
4. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED IN THIS UNIT MUST BE REPLACED, REPLACE IT WITH APPLIANCE WIRING MATERIAL RATED AT 105 °C.
5. INDOOR BLOWER MOTOR CONNECTIONS SHOWN ARE THE TCC036F4, -036FW, -030FD, -060F4, -060FW AND -050FD UNITS. FOR INDOOR BLOWER MOTOR CONNECTIONS FOR THE TCC048F4, -048FW, AND -040FD UNITS SEE INSET A AND B.

continued on next page

From Dwg. 21D756913 P03

# Field Wiring

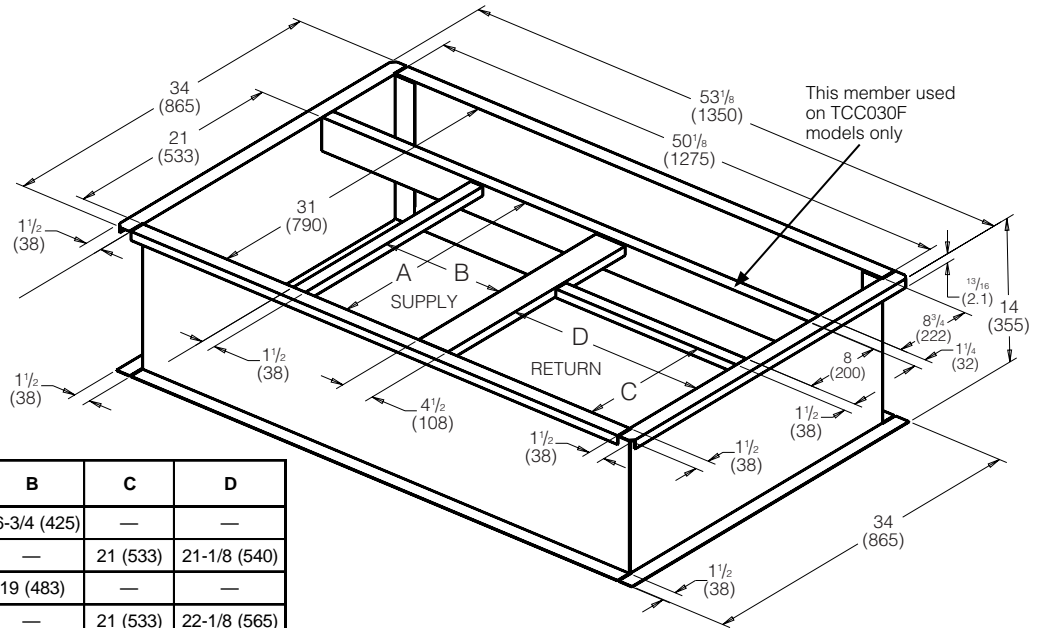
## Wiring Diagram for TCC030,040,050FD00B Units



# Dimensions

## BAYCURB030A Roof Curb Outline With TCC030F Units

ALL DIMENSIONS ARE IN INCHES (MM)



MODEL NO.	AIR DUCT OPENINGS	A	B	C	D
TCC030F	SUPPLY	21 (533)	16-3/4 (425)	—	—
	RETURN	—	—	21 (533)	21-1/8 (540)
TCC040F	SUPPLY	21 (533)	19 (483)	—	—
TCC050F	RETURN	—	—	21 (533)	22-1/8 (565)

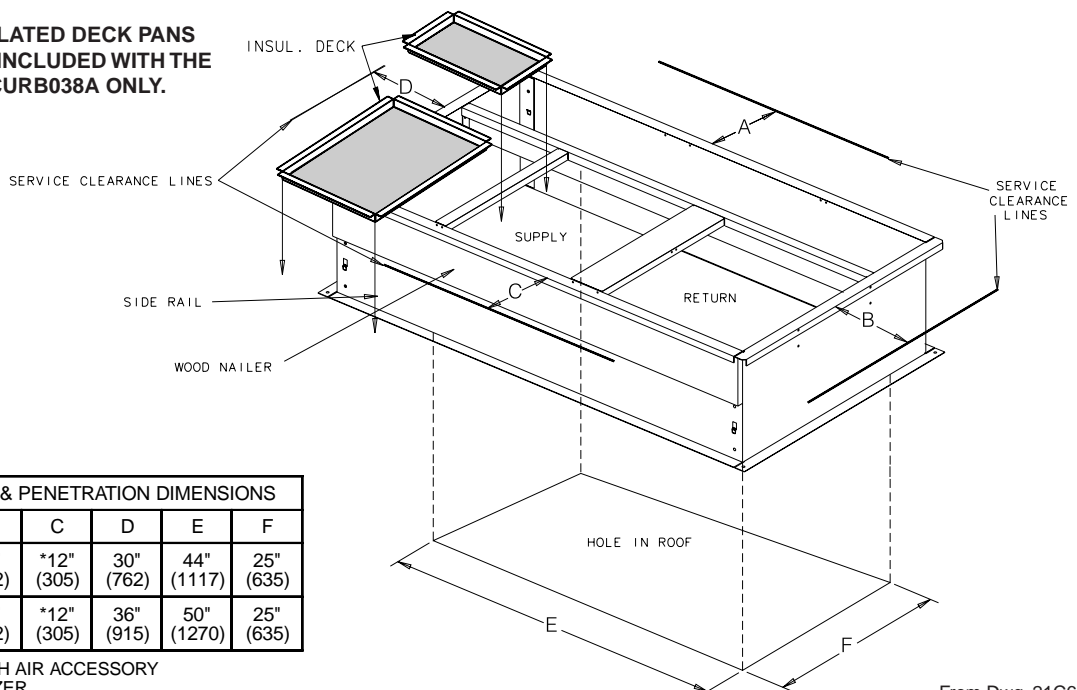
All dimensions are in inches (mm).

From Dwg. 21C729942

## Required Clearance for Unit Installation and Roof Penetration Hole Size Required

ALL DIMENSIONS ARE IN INCHES (MM)

**INSULATED DECK PANS ARE INCLUDED WITH THE BAYCURB038A ONLY.**



SERVICE CLEARANCE & PENETRATION DIMENSIONS						
MODEL NO.	A	B	C	D	E	F
TCC030F	42" (1067)	30" (762)	*12" (305)	30" (762)	44" (1117)	25" (635)
TCC040F TCC050F	42" (1067)	30" (762)	*12" (305)	36" (915)	50" (1270)	25" (635)

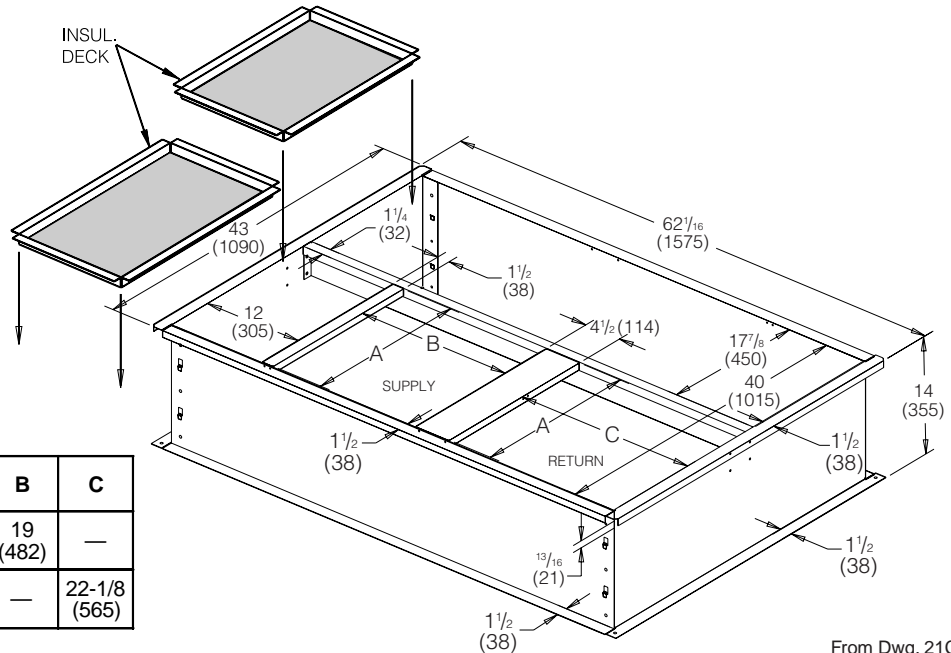
\* 18" (457) WITH 25% FRESH AIR ACCESSORY  
30" (762) WITH ECONOMIZER

From Dwg. 21C662039

# Dimensions

## BAYCURB034A Roof Curb Outline With TCC040,050F Units

ALL DIMENSIONS ARE IN INCHES (MM)



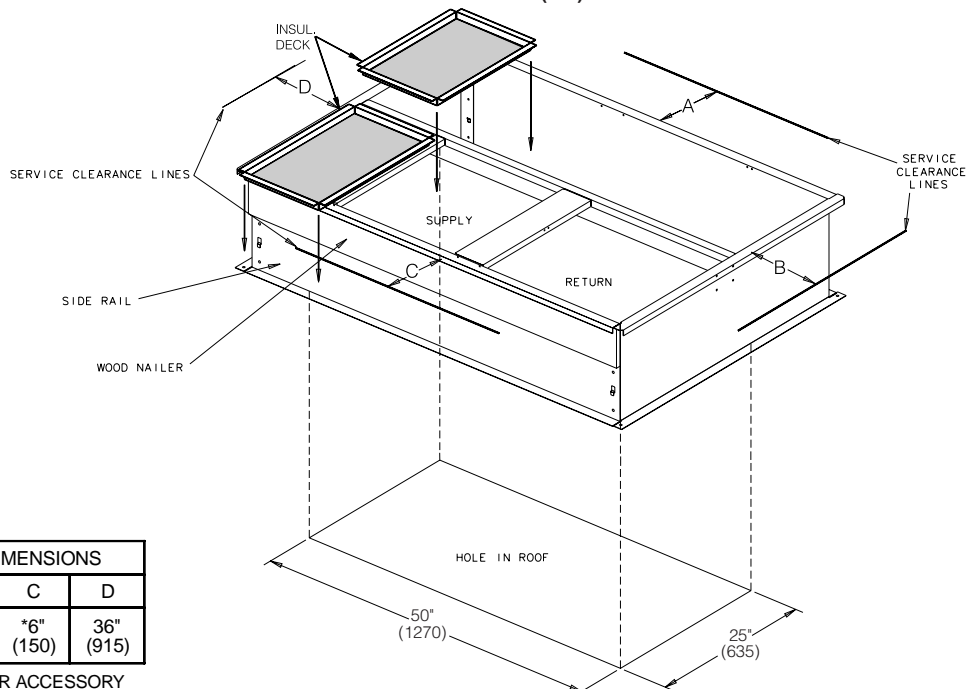
From Dwg. 21C662034

MODEL NO.	AIR DUCT OPENINGS	A	B	C
TCC040F TCC050F	SUPPLY	21 (533)	19 (482)	—
	RETURN	21 (533)	—	22-1/8 (565)

All dimensions are in inches (mm).

## Required Clearance for Unit Installation and Roof Penetration Hole Size Required

ALL DIMENSIONS ARE IN INCHES (MM)



From Dwg. 21C662038

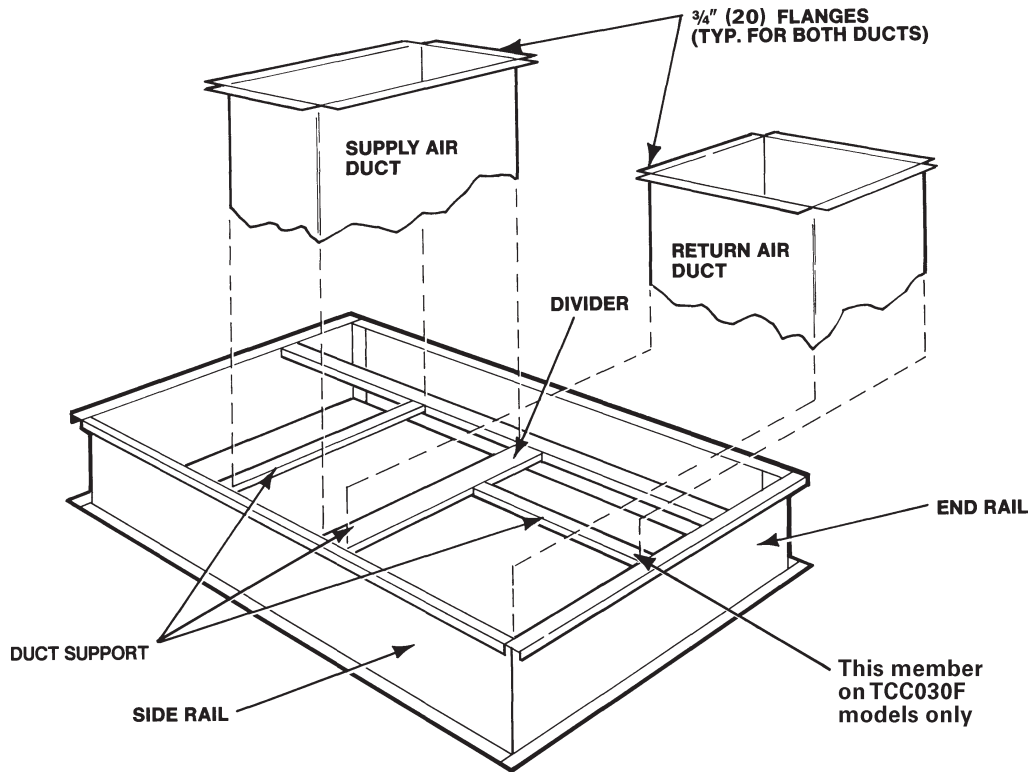
SERVICE CLEARANCE DIMENSIONS				
MODEL NO.	A	B	C	D
TCC040F	42"	30"	*6"	36"
TCC050F	(1070)	(815)	(150)	(915)

\* 18" (457) WITH 25% FRESH AIR ACCESSORY  
30" (762) WITH ECONOMIZER

# Dimensions

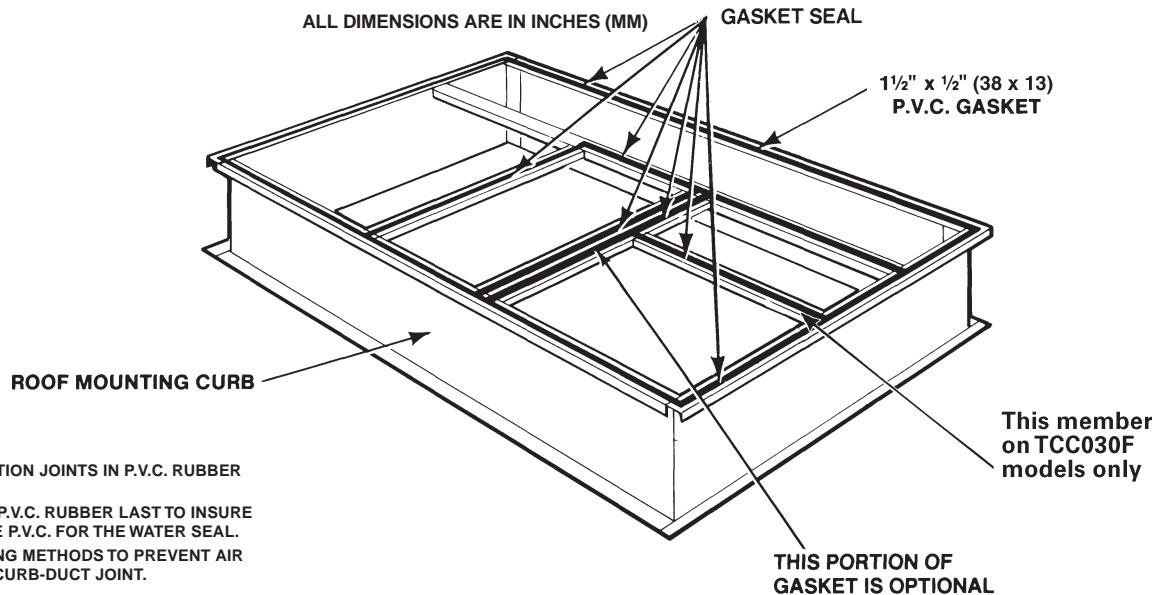
## Field Fabricated (Side X Side) Ducts — TCC030-050F Units Installed from Above Mounting Curb

ALL DIMENSIONS ARE IN INCHES (MM)



## P.V.C. Rubber Gasket Position on BAYCURB030A for Unit Placement — TCC030-050F Units

ALL DIMENSIONS ARE IN INCHES (MM)



**NOTES:**

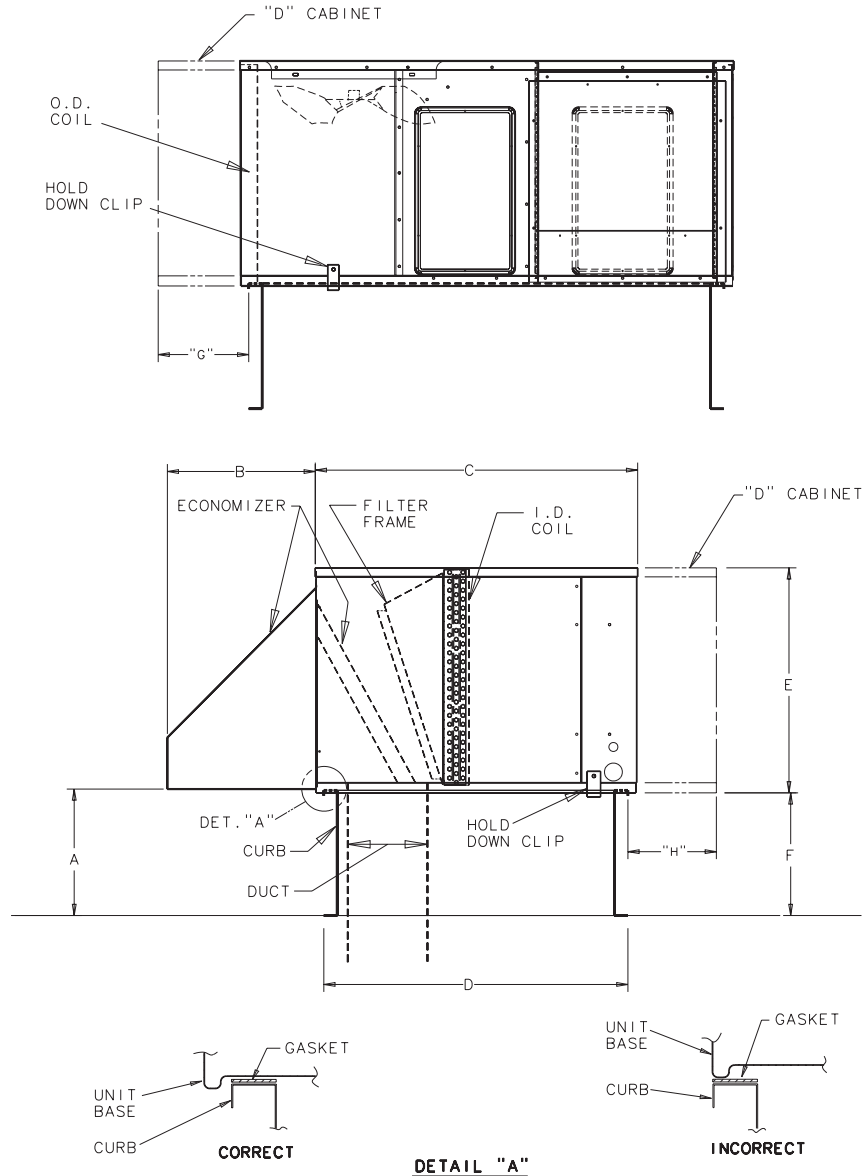
1. OVERLAP AND POSITION JOINTS IN P.V.C. RUBBER GASKET.
2. AIR SEALS – APPLY P.V.C. RUBBER LAST TO INSURE THERE IS ADEQUATE P.V.C. FOR THE WATER SEAL.
3. USE TYPICAL SEALING METHODS TO PREVENT AIR DUCT LEAKAGE AT CURB-DUCT JOINT.



# Dimensions

## TCC030-050F OUTLINE DRAWING — Front

ALL DIMENSIONS ARE IN INCHES (MM)



CABINET SIZE	MODEL	BAYCURB	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
"B"	TCC030F	030A	14-1/8 (360)	16-5/8 (425)	36 (915)	34 (865)	29-3/16 (740)	13-3/4 (350)	—	—
"D"	TCC040F TCC050F	030A	14-13/16 (380)	21 (535)	45 (1145)	34 (865)	33-3/8 (850)	13-3/4 (350)	10-1/8 (261)	9-7/8 (251)
"D"	TCC040F TCC050F	034A	14-13/16 (380)	21 (533)	45 (1145)	43 (1092)	33-3/8 (850)	13-3/4 (350)	—	—

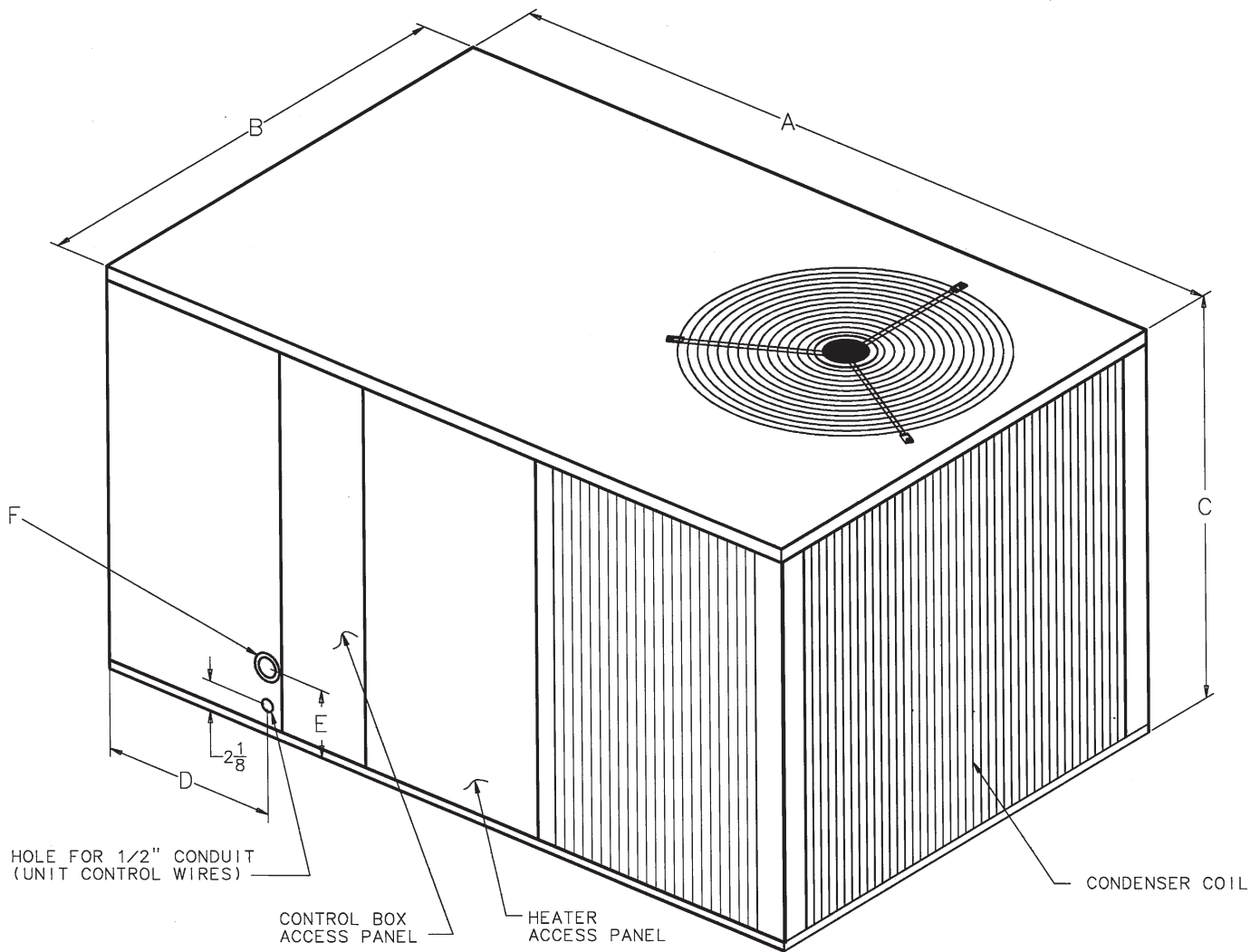
From Dwg. 21D661772



# Dimensions

## TCC030-050F OUTLINE DRAWING — Front

ALL DIMENSIONS ARE IN INCHES (MM)



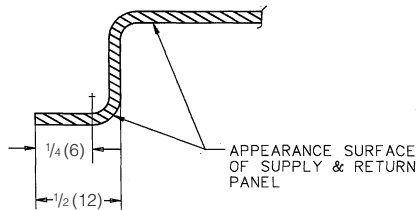
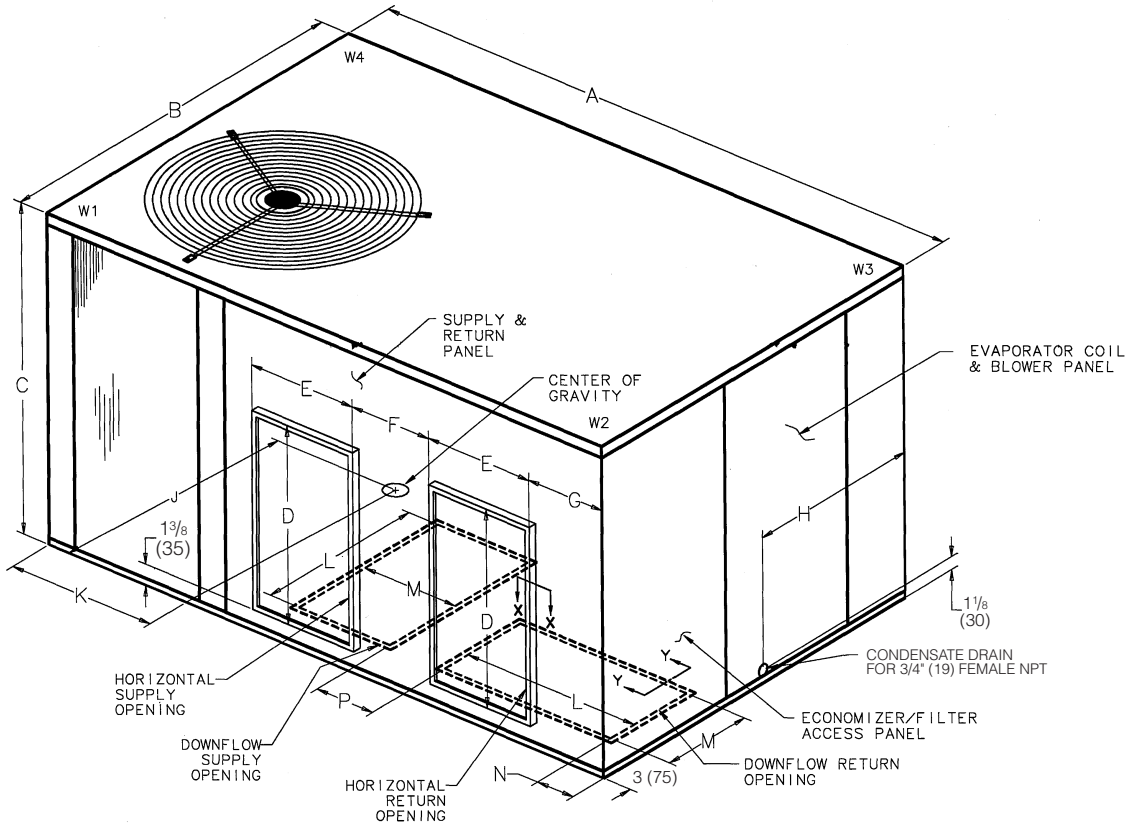
MODEL	A	B	C	D	E	F
TCC030F	55-1/4 (1405)	36 (915)	29-3/16 (740)	12-15/16 (330)	4-7/8 (122)	KNOCKOUTS FOR 3/4" (20) AND 1-1/4" (32) CONDUIT
TCC040F TCC050F	64-5/16 (1634)	45 (1145)	33-3/8 (850)	14-13/16 (375)	4-7/8 (122)	KNOCKOUTS FOR 3/4" (20) AND 1-1/2" (38) CONDUIT

From Dwg. 21D729945 Rev. 5

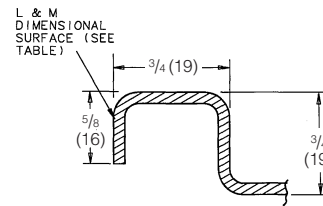
# Dimensions

## TCC030-050F OUTLINE DRAWING — Rear

ALL DIMENSIONS ARE IN INCHES (MM)



**SECT. X-X**  
TYPICAL CROSS SECTION OF HORIZONTAL SUPPLY & RETURN PERIMETER FLANGES



**SECT. Y-Y**  
TYPICAL CROSS SECTION OF DOWNFLOW SUPPLY & RETURN PERIMETER FLANGES

MODEL	CORNER WEIGHT LBS (KG)				UNIT WEIGHT LBS (KG)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
	W1	W2	W3	W4															
TCC030F	91 (41)	71 (32)	79 (35)	102 (46)	318 (144)	55-1/4 (1400)	36 (915)	29-3/16 (750)	18-9/16 (470)	11-1/16 (280)	6-9/16 (170)	6-13/16 (170)	17 (430)	19 (480)	24 (610)	17-1/2 (445)	10 (250)	3 (75)	4-7/16 (115)
TCC040F	123 (55)	98 (44)	118 (53)	148 (66)	486 (220)	64-5/16 (1634)	45 (1145)	33-3/8 (846)	21-1/16 (535)	15-1/16 (385)	4-15/16 (120)	9-1/8 (230)	21-15/16 (550)	24-5/8 (625)	28-1/2 (726)	20 (500)	14 (350)	3-1/2 (90)	8-5/16 (210)
TCC050F	127 (57)	101 (45)	122 (55)	153 (69)	504 (229)									24-5/8 (625)	28-1/2 (726)				

From Dwg. 21D729988 Rev. 10



# Mechanical Specification Options

## 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 R-22. Units shall be UL listed and carry a UL label. All units shall be factory run tested to check cooling operation, fan and blower rotation and control 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 ARI 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 glass fiber material. Knockouts shall be provided for utility and control connections. Drain connections shall be provided to accommodate indoor water runoff.

## Compressor

The compressor shall be a hermetically sealed, high efficiency Climatuff® compressor. Internal overcurrent and over temperature protection, internal pressure relief shall be standard. Crankcase heaters shall be standard on all three phase models.

## Refrigeration System

All units shall have capillary tube refrigerant control. Service pressure tap ports, and a refrigerant line filter dryer shall be standard.

## Indoor and Outdoor Coils

Coils shall be internally finned or smooth bore 3/8" copper tubes mechanically bonded to configured aluminum plate fin as standard. Evaporator coil leak and pressure tested to 200 psig; condenser coil tested to 450 psig.

## Indoor Fan

The indoor fan shall be a forward curved, centrifugal-type fan with a multiple-speed, direct drive motor. Motor is permanently lubricated and shall have built-in overload protection.

## 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.

## Fully Modulating Economizer

— This accessory shall be field installed and be composed of the following items: 0-100% fresh air damper, damper drive motor, fixed dry bulb enthalpy control, and low voltage pigtailed for electrical connections. Solid state enthalpy or differential enthalpy control is optional. Economizer operations shall be controlled by the preset position of the enthalpy control. A barometric relief damper shall be standard with the economizer and provide a pressure operated damper that shall be gravity closing and prohibit entrance of outside air on equipment "off" cycle.

**Manual Outside Air Dampers** — Rain hood and screen shall be field installed. Suitable for up to 25% outside air.

**Anti-Short Cycle Timer** — Timed off device that ensures a minimum of five minutes off between compressor cycles.

## 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 Setback Thermostat** — Programmable electronic thermostat shall provide heating setback and cooling setup with 7-day, programming capability. 1H/1C or 2H/2C models available.



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An American Standard Company

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Supersedes	IPB-92-3(50)	
Stocking Location	P.I.-L	

Since The Trane Company has a policy of continuous product improvement, it reserves the right to change design and specifications without notice.