

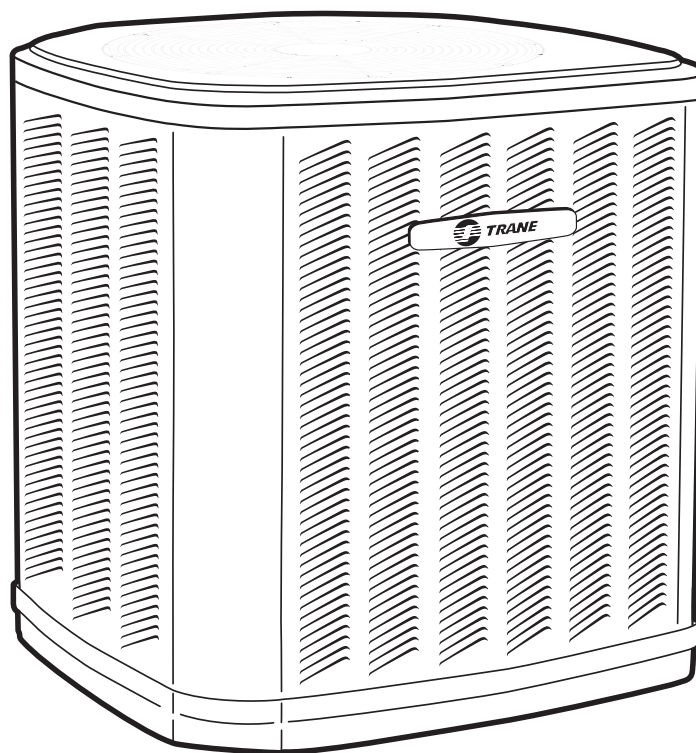


# Split System Heat Pump Product Data

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**XB 13**  
**4TWB3018-060**

**1½ – 5 Tons**



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**PUB. NO. 22-1793-12**



## Features and Benefits

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- **Climatuff®** compressor
- All aluminum **Spine Fin™** coil
- **Quick-Sess™** cabinet, service access and refrigerant connections with full coil protection
- **DuraTuff™** base, fast complete drain, weather proof
- Glossy corrosion resistant finish
- Internal compressor high/low pressure and temperature protection
- 018, 024, and 030 ship with Start Kit
- Liquid line filter-drier
- Polyslate gray cabinet
- Low Pressure Switch (042, 048, 060)
- Demand Defrost Control
- High Pressure Switch
- R-410A refrigerant
- 100% line run test
- Low ambient cooling to 55°F as shipped
- Low ambient cooling to 30°F with EDC accessory AY28X084 and TXV
- **Extended warranties available**

# Contents

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<b>Features and Benefits</b>	<b>2</b>
<b>General Data</b>	<b>4</b>
Product Specifications	4
A-weighted Sound Power Level [dB(A)]	4
Accessory Description and Usage	5
AHRI Standard Capacity Rating Conditions	5
<b>Model Nomenclature</b>	<b>6</b>
<b>Electrical Data</b>	<b>7</b>
<b>Dimensions</b>	<b>10</b>
<b>Mechanical Specification Options</b>	<b>11</b>



# General Data

## Product Specifications

Model No. ①	4TWB3018C1	4TWB3024C1	4TWB3030C1	4TWB3036B1
Electrical Data V/Ph/Hz ②	208/230/1/60	208/230/1/60	200/230/1/60	208/230/1/60
Min Cir Ampacity	9	12	15	18
Max Fuse Size (Amps)	15	20	25	30
Compressor	CLIMATUFF®	CLIMATUFF®	CLIMATUFF®	CLIMATUFF®
RL Amps - LR Amps	6.4 - 40	8.9 - 48.5	11.5 - 63.5	13.2 - 63
Outdoor Fan FL Amps	0.7	0.74	0.74	1.0
Fan HP	1/8	1/8	1/8	1/5
Fan Dia (inches)	23.0	23.0	23.0	27.5
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	5/9-LB/OZ	5/12-LB/OZ	6/05-LB/OZ	7/6-LB/OZ
Line Size - (in.) O.D. Gas ③	5/8	5/8	3/4	3/4
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8	3/8
Charge Spec. Subcooling	10°	10°	8°	8°
Dimensions H x W x D (Crated)	34 x 30.1 x 33	34 x 30.1 x 33	38 x 30.1 x 33	38.4 x 35.1 x 38.7
Weight - Shipping	189	191	221	261
Weight - Net	161	163	193	227
Start Components	YES	YES	YES	YES
Sound Enclosure	NO	NO	NO	YES
Compressor Sump Heat	NO	NO	NO	NO
<b>Optional Accessories: ④</b>				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X084	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg-Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg-4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003
Extreme Condition Mounting Kit	BAYECMT023	BAYECMT023	BAYECMT023	BAYECMT004
Start Kit				
Crankcase Heater Kit	BAYCCHT300	BAYCCHT300	BAYCCHT300	BAYCCHT300
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103	BAYLOAM103
Refrigerant Lineset ⑤	TAYREFLN9*	TAYREFLN9*	TAYREFLN7*	TAYREFLN7*

① Certified in accordance with the Air-Source Unitary Heat Pump equipment certification program which is based on AHRI Standard 210/240.

② Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

③ Standard line lengths - 60'. Standard lift - 60' Suction and Liquid line.

For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-01. (\*denotes latest revision)

④ For accessory description and usage, see page 5.

⑤ \* = 15, 20, 25, 30, 40 and 50 foot lineset available.

MODEL	SOUND POWER LEVEL [dB(A)]	A-WEIGHTED FULL OCTAVE SOUND POWER LEVEL dB [(dB(A)]							
		63	125	250	500	1000	2000	4000	5000
4TWB3018C1	79	47.3	60.7	65.8	71.2	72.8	72.1	62.2	52.8
4TWB3024C1	79	45.3	58.8	70.5	70.5	75.4	75.3	66.8	61.3
4TWB3030C1	79	46.6	58.2	65.9	69.2	73.5	73.1	62.3	56.5
4TWB3036B1	79	46.4	59.6	67.4	74.8	73.8	68.9	61.2	53.4
4TWB3042B1	79	47.6	58.3	67.3	74.9	74.9	70.4	62.3	53.0
4TWB3048B1	78	47.0	56.5	66.7	73.0	72.8	69.3	62.0	51.4
4TWB3060B1	78	45.3	55.1	66.6	73.0	73.5	69.7	63.1	53.9

Note: Rated in accordance with AHRI Standard 270-2008

# General Data

## Product Specifications

Model No. ①	4TWB3042B1	4TWB3048B1	4TWB3060B1
Electrical Data V/Ph/Hz ②	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	26	28	34
Max Fuse Size (Amps)	45	50	60
Compressor	CLIMATUFF® - SCROLL	CLIMATUFF® - SCROLL	CLIMATUFF® - SCROLL
RL Amps - LR Amps	19.9 - 109	21.8 - 117	26.3 - 134
Outdoor Fan FL Amps	.97	1.01	.94
Fan HP	1/5	1/5	1/5
Fan Dia (inches)	27.5	27.5	27.86
Coil	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	7/07-LB/OZ	8/9-LB/OZ	8/14-LB/OZ
Line Size - (in.) O.D. Gas ③	3/4	7/8	7/8
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8
Charge Spec. Subcooling	8°	8°	8°
Dimensions H x W x D (Crated)	38.4 x 35.1 x 38.7	42.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7
Weight - Shipping	253	269	284
Weight - Net	219	234	248
Start Components	NO	NO	NO
Sound Enclosure	NO	NO	NO
Compressor Sump Heat	NO	NO	NO
<b>Optional Accessories: ④</b>			
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg-Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg-4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003
Extreme Condition Mounting Kit	BAYECMT004	BAYECMT004	BAYECMT004
Start Kit	BAYKSKT263	BAYKSKT263	BAYKSKT263
Crankcase Heater Kit	BAYCCHT301	BAYCCHT301	BAYCCHT301
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103
Refrigerant Lineset ⑤	TAYREFLN7*	TAYREFLN3*	TAYREFLN3*

## Accessory Description and Usage

**Anti-Short Cycle Timer** — Solid state timing device that prevents compressor recycling until five (5) minutes have elapsed after satisfying call or power interruptions. Use in area with questionable power delivery, commercial applications, long lineset, etc.

**Evaporator Defrost Control** — SPST Temperature actuated switch that cycles the condenser off as indoor coil reaches freeze-up conditions. Used for low ambient cooling to 30°F with TXV.

**Rubber Isolators** — Five (5) large rubber donuts to isolate condensing unit from transmitting energy into mounting frame or pad. Use on any application where sound transmission needs to be minimized.

**Hard Start kit** — Start capacitor and relay to assist compressor motor startup. Use in areas with marginal power supply, on long linesets, low ambient conditions, etc.

**Extreme Condition Mount Kit** — Bracket kits to securely mount condensing unit to a frame or pad without removing any panels. Use in areas with high winds, or on commercial roof tops, etc.

## AHRI Standard Capacity Rating Conditions

### AHRI STANDARD 210/240 RATING CONDITIONS —

- (A) Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
- (B) High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- (C) Low Temperature Heating 17°F DB, 15°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- (D) Rated indoor airflow for heating is the same as for cooling.

**AHRI STANDARD 270 RATING CONDITIONS** — (Noise rating numbers are determined with the unit in cooling operation.) Standard Noise Rating number is at 95°F outdoor air.





# Model Nomenclature

## Outdoor Units

Refrigerant Type  
2 = R-22  
4 = R-410A

TRANE

Product Type  
W = Split Heat Pump  
T = Split Cooling

Product Family  
Z = Leadership – Two Stage  
X = Leadership  
R = Replacement/Retail  
B = Basic  
A = Light Commercial

Family SEER  
0 = 10    3 = 13    6 = 16  
1 = 11    4 = 14    8 = 18  
2 = 12    5 = 15    9 = 19

Split System Connections 1-6 Tons  
0 = Brazed

Nominal Capacity in 000s of BTUs

Major Design Modifications

Power Supply  
1 = 200-230/1/60 or 208-230/1/60  
3 = 200-230/3/60  
4 = 460/3/60

Secondary Function

Minor Design Modifications

Unit Parts Identifier

## Gas Furnaces

Furnace Configuration  
TU = Upflow/Horizontal  
TD = Downflow/Horizontal

Type  
E = 80% Induced Draft Standard  
D = 80% Induced Draft Premium  
C = 90% Condensing Standard  
X = 90% Condensing Premium  
H = 95% Condensing Premium

Number of Heating Stages  
1 = Single Stage  
2 = Two Stage  
M = Modulating

Cabinet Width  
A = 14.5" Cabinet Width  
B = 17.5" Cabinet Width  
C = 21.0" Cabinet Width  
D = 24.5" Cabinet Width

Heating Input in 1000's (BTUH)  
080 = 80,000 BTUH

Major Design Change

Voltage  
9 = 115 Volts / 60 Hertz / Natural Gas  
A = 115 Volts / 50 Hertz / Natural Gas  
C = 115 Volts / Natural Gas with Communicating System Control  
F = 115 Volts / Natural Gas with Integrated Electronic Filter  
D = 115 Volts / Natural Gas with Communicating System Control and Integrated Electronic Filter

Air Capacity for Cooling  
Standard PSC    Variable Speed    High Efficiency  
24 = 2 Tons    V3 = 3 Tons    H3 = 3 Tons  
36 = 3 Tons    V4 = 4 Tons    H4 = 4 Tons  
42 = 3.5 Tons    V5 = 5 Tons    H5 = 5 Tons  
45 = 4 Tons  
48 = 4 Tons  
54 = 5 Tons  
60 = 5 Tons  
72 = 6 Tons

Draft Inducer Speeds  
1 = Single Speed  
2 = Two Speed  
V = Variable Speed

Minor Design Change

Service Digit - Not Orderable

## Air Handler

Brand  
T = Better  
G = Good

Product Type  
A = Air Handler

Convertability  
M = Multi-poise 4-way  
F = Upflow Front Return, 3-way  
T = 3-way

Product Tier  
2 = Good, Entry Level Feature Set  
4 = Better, Retail Replacement Mid Effy.  
5 = Better, Entry Level High Effy., Multi-Speed  
7 = Best, Retail Replacement High Effy., Variable-Speed  
8 = Best, Retail Ultimate High Effy., Variable-Speed

Major Design Change

No Descriptor  
0 = Air Handler / Coil

Size (Footprint)  
A = 17.5 x 21.5  
B = 21.0 x 21.5  
C = 23.5 x 21.5

Cooling Size: Air Handler or Coil  
0-9 = AH Coil - 1000 BTU's (18, 24, 30, 36, 42, 48, 60)

Airflow Type & Capability  
S = Low Effy PSC, 1-5 - nom. Tonnage (cfm/ton)  
M = Mid Effy Multi-Speed, 1-5 - nom. Tonnage (cfm/ton)  
H = High Effy Multi-Speed, 1-5 - nom. Tonnage (cfm/ton)  
V = High Effy Variable, 1-5 - nom. Tonnage (cfm/ton)

Power Supply  
1 = 208-230/1/60

System Control Type  
S = Standard - 24 VAC  
C = CLII 13.8 VDC

Minor Design Change

Unit Parts Identifier

## Heat Pump/ Cooling Coils

Refrigerant Type  
4 = R-410A

Series  
T = Premium (Heat Pump or Convertible Coil)  
C = Standard (Cooling Only)

Coil Design  
X = Direct Expansion Evaporator Coil

Coil Feature  
C = Cased A Coil  
A = Uncased A Coil  
F = Cased Horizontal Flat Coil

Coil Width (Cased/Uncased)  
A = 14.5" / 13.3"  
B = 17.5" / 16.3"  
C = 21.0" / 19.8"  
D = 24.5" / 23.3"  
H = 10.5"

Refrigerant Line Coupling  
0 = Brazed

Nominal Capacity in 1000's (BTUH)

Major Design Change

Efficiency  
C = Standard  
S = Hi Efficiency (derived from 10 SEER products)

Refrigerant Control  
3 = TXV - Non-Bleed

Coil Circuitry  
H = Heat Pump  
C = Cooling

Airflow Configuration  
A = Upflow Only  
U = Upflow / Downflow  
H = Horizontal Only  
C = Convertible - Upflow, Downflow, Left or Right Airflow

Minor Design Change

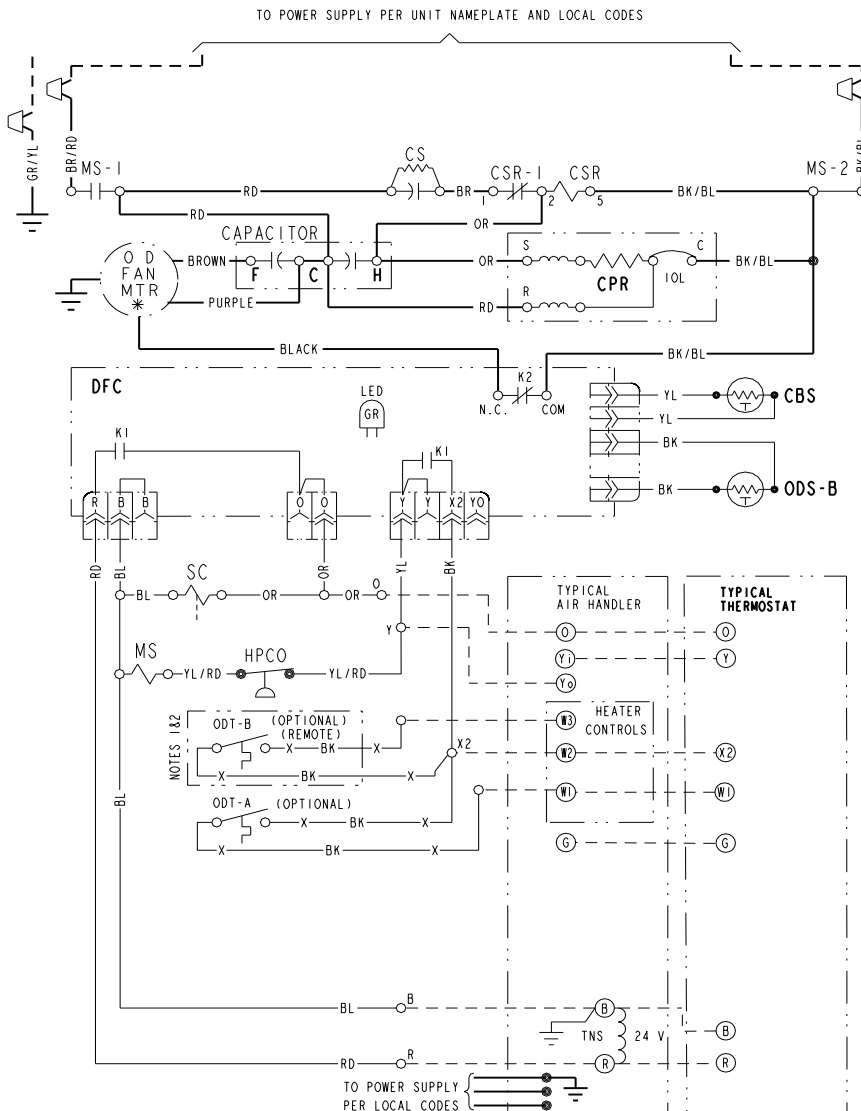
Service Digit - Not Orderable

# Electrical Data

## SCHEMATIC DIAGRAMS

(SEE LEGEND)

### 4TWB3018-036



CA COOLING ANTICIPATOR  
CBS COIL BOTTOM SENSOR  
CF FAN CAPACITOR  
CN WIRE CONNECTOR  
CPR COMPRESSOR  
CR RUN CAPACITOR  
CS STARTING CAPACITOR  
CSR CAPACITOR SWITCHING RELAY  
DFC DEFROST CONTROL  
F INDOOR FAN RELAY  
HA HEATING ANTICIPATOR  
HPCO HIGH PRESSURE CUTOFF SW.  
IOL INTERNAL OVERLOAD PROTECTOR  
LPCO LOW PRESSURE CUTOFF SW.  
MS COMPRESSOR MOTOR CONTACTOR  
ODA OUTDOOR ANTICIPATOR  
OFT OUTDOOR FAN THERMOSTAT  
ODS OUTDOOR TEMPERATURE SENSOR  
ODT OUTDOOR THERMOSTAT  
RHS RESISTANCE HEAT SWITCH  
SC SWITCHOVER VALVE SOLENOID  
SM SYSTEM "ON-OFF" SWITCH  
TDL DISCHARGE LINE THERMOSTAT  
TNS TRANSFORMER  
TS HEATING-COOLING THERMOSTAT  
TSH HEATING THERMOSTAT

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

<b>⚠ WARNING</b> HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!	<b>⚠ CAUTION</b> USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!
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#### NOTES:

1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER.  
IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

FOR CANADIAN INSTALLATIONS  
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON  
SYSTEMS EXCEEDING 150V-TO-GROUND.  
ATTENTION: NE CONVIENT PAS AUX  
INSTALLATIONS DE PLUS DE 150 V A  
LA TERRE.

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(SEE LEGEND)

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<p><b>⚠ WARNING</b></p> <p><b>HAZARDOUS VOLTAGE!</b></p> <p>DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.</p> <p>FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!</p>	<p><b>⚠ CAUTION</b></p> <p><b>USE COPPER CONDUCTORS ONLY!</b></p> <p>UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.</p> <p>FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!</p>
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NOTES:

- CAUTION: NOT SUITABLE FOR USE ON  
SYSTEMS EXCEEDING 150V-TO-GROUND.  
ATTENTION: NE CONVIENT PAS AUX  
INSTALLATIONS DE PLUS DE 150 V A  
LA TERRE.

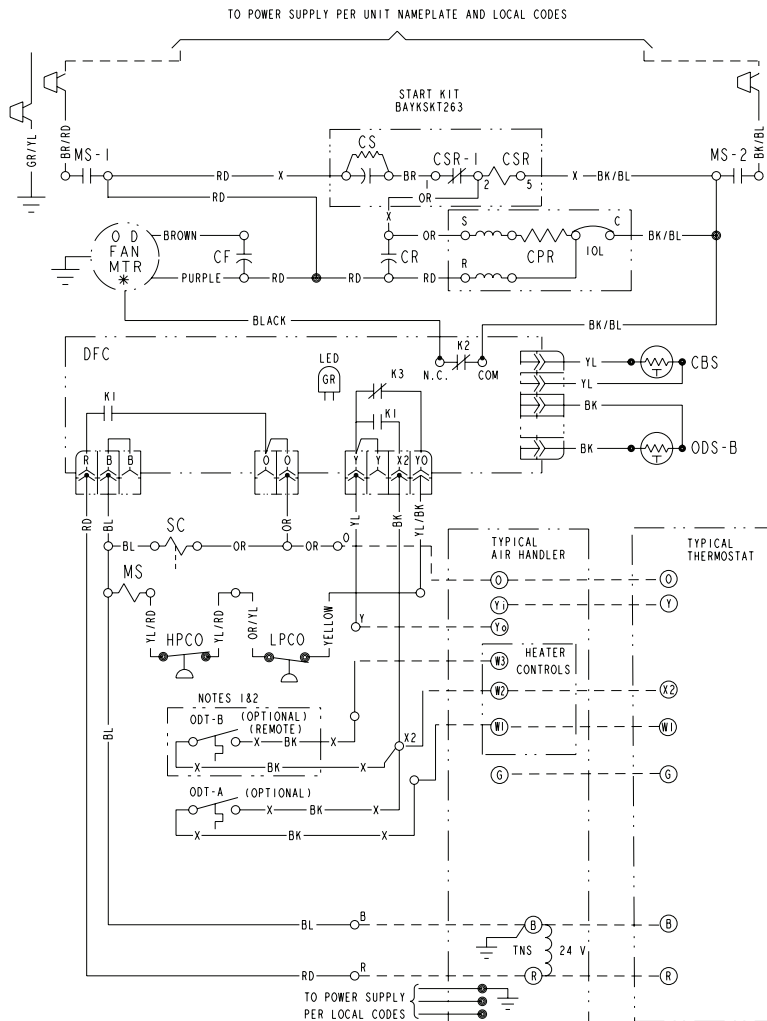


# Electrical Data

## SCHEMATIC DIAGRAMS

(SEE LEGEND)

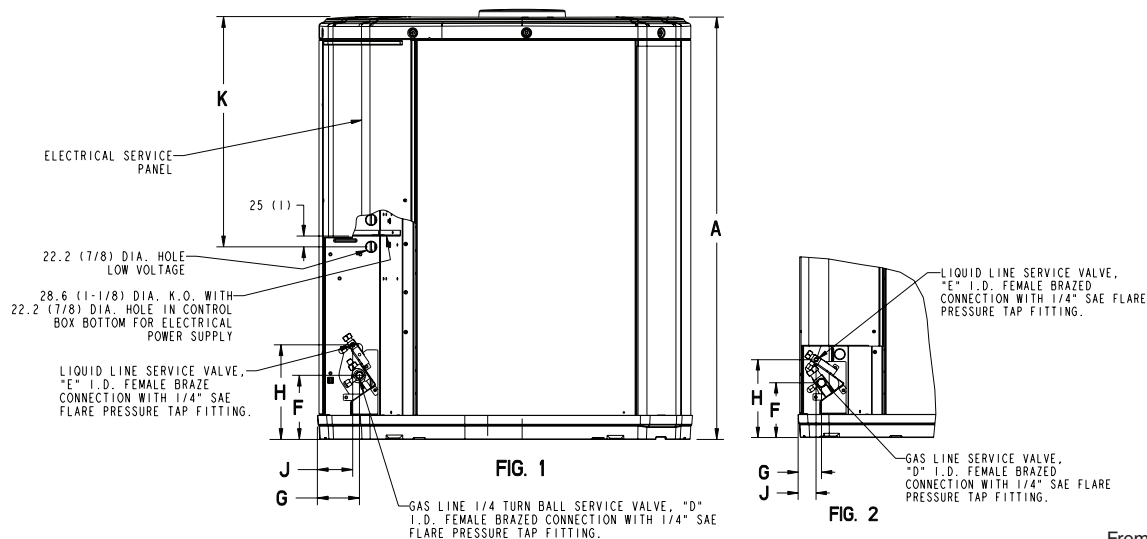
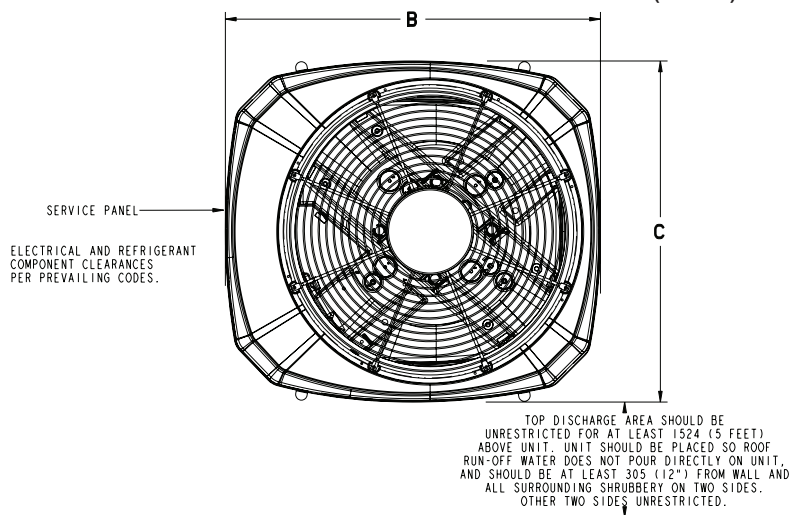
### 4TWB3048-060



# Dimensions

## 4TWB3 OUTLINE DRAWING

NOTE: ALL DIMENSIONS ARE IN MM (INCHES)



From Dwg. D153074

MODELS	BASE	FIG.	A	B	C	D	E	F	G	H	J	K
4TWB3018C1	3	1	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	5/8	3/8	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4TWB3024C1	3	1	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	5/8	3/8	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4TWB3030C1	3	1	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
4TWB3036B1	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWB3042B1	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWB3048B1	4	1	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWB3060B1	4	1	1045 (41-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)

# Mechanical Specification Options

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## **General**

The 4TWB3 is fully charged from the factory for up to 15 feet of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit certified to UL 1995. Exterior is designed for outdoor application.

## **Casing**

Unit casing is constructed of heavy gauge, G90 galvanized steel and painted with a weather-resistant powder paint on all louvers, panels, prepaint on all other panels. Corrosion and weather-proof CMBP-G30 DuraTuff™ base.

## **Refrigerant Controls**

Refrigeration system controls include condenser fan, compressor contactor and high pressure switch. High and low pressure controls are inherent to the compressor. A factory installed liquid line drier is standard.

## **Compressor**

The Climatuff® compressor features internal over temperature and pressure protection and total dipped hermetic motor. Other features include: centrifugal oil pump and low vibration and noise.

## **Condenser Coil**

The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

## **Low Ambient Cooling**

As manufactured, this unit has a cooling capability to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

## **Accessories**

**Thermostats** — Cooling only and heat/cooling (manual and automatic change-over). Sub-base to match thermostat and locking thermostat cover.

**Evaporator Defrost Control** — See Low Ambient Cooling.



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04/12

*Trane has a policy of continuous product and product data improvement **and** it reserves the right to change design and specifications without notice.*