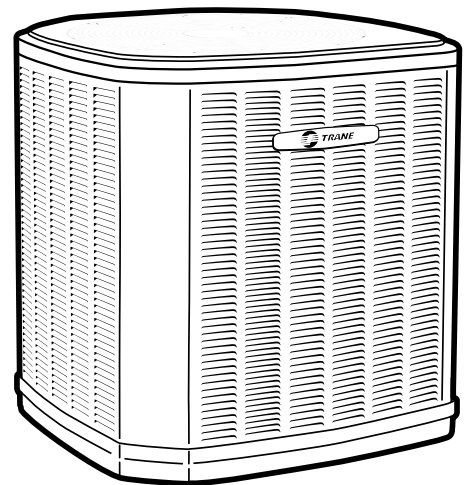




# Product and Submittal Data

## Split System Heat Pump

5TWA4036A3000A  
5TWA4042A3000A  
5TWA4048A3000A  
5TWA4060A3000A  
5TWA4036A4000A  
5TWA4042A4000A  
5TWA4048A4000A  
5TWA4060A4000A



*Note: Graphics in this document are for representation only. Actual model may differ in appearance.*



## Copyright

This document and the information in it are the property of Trane, and may not be used or reproduced in whole or in part without written permission. Trane reserves the right to revise this publication at any time, and to make changes to its content without obligation to notify any person of such revision or change.

## Trademark

All trademarks referenced in this document are the trademarks of their respective owners.

## Data Notes

This document supersedes and includes data from the documents listed below.

**Table 1. Data notes**

Literature Number	Title
22-2003-1*-EN	Split System Heat Pump Product Data
5TWA4036A-SUB-3*-EN	Split System Heat Pump 208-230V Model 5TWA4036A3000A Submittal
5TWA4036A-SUB-4*-EN	Split System Heat Pump 460V Model 5TWA4036A4000A Submittal
5TWA4042A-SUB-3*-EN	Split System Heat Pump 208-230V Model 5TWA4042A3000A Submittal
5TWA4042A-SUB-4*-EN	Split System Heat Pump 460V Model 5TWA4042A4000A Submittal
5TWA4048A-SUB-3*-EN	Split System Heat Pump 208-230V Model 5TWA4048A3000A Submittal
5TWA4048A-SUB-4*-EN	Split System Heat Pump 460V Model 5TWA4048A4000A Submittal
5TWA4060A-SUB-3*-EN	Split System Heat Pump 208-230V Model 5TWA4060A3000A Submittal
5TWA4060A-SUB-4*-EN	Split System Heat Pump 460V Model 5TWA4060A4000A Submittal



# Table of Contents

Product Specifications .....	4
Sound Power Level .....	7
Accessory Description and Usage .....	8
Model Nomenclature.....	8
Wiring Diagram.....	9
Dimensional Data.....	14
Mechanical Specification Options .....	15



# Product Specifications

**Table 2. 3-Phase, 208/230V**

<b>OUTDOOR UNIT</b> <sup>(a) (b)</sup>	5TWA4036A3000A	5TWA4042A3000A	5TWA4048A3000A	5TWA4060A3000A
POWER CONNS. - V/PH/HZ <sup>(c)</sup>	208/230/3/60	208/230/3/60	208/230/3/60	208/230/3/60
MIN. BRCH. CIR. AMPACITY	16.6	18.1	18.1	22.8
BR. CIR. PROT. RTG. - MAX. (AMPS)	25	30	30	35
<b>COMPRESSOR</b>	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL
NO. USED - NO. STAGES	1 - 1	1 - 1	1 - 1	1 - 1
VOLTS/PH/HZ	200/230/3/60	200/230/3/60	200/230/3/60	200/230/3/60
R.L. AMPS <sup>(d)</sup> - L.R. AMPS	12.8 - 97.5	12.2 - 102.8	12.2 - 120.4	16.0 - 156.4
FACTORY INSTALLED				
START COMPONENTS <sup>(e)</sup>	NO	NO	NO	NO
INSULATION/SOUND BLANKET	NO	NO	NO	NO
COMPRESSOR HEAT	YES	YES	YES	YES
<b>OUTDOOR FAN</b>	PROPELLER	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.) - NO. USED	27.5 - 1	27.5 - 1	27.5 - 1	27.5 - 1
TYPE DRIVE - NO. SPEEDS	DIRECT - 1	DIRECT - 1	DIRECT - 1	DIRECT - 1
CFM @ 0.0 IN. W.G. <sup>(f)</sup>	4230	4992	4992	4992
NO. MOTORS - HP	1 - 1/8	1 - 1/3	1 - 1/3	1 - 1/3
MOTOR SPEED R.P.M.	850	850	850	850
VOLTS/PH/HZ	200/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
F.L. AMPS	0.64	2.80	2.80	2.80
<b>OUTDOOR COIL - TYPE</b>	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS - F.P.I.	1 - 24	2 - 24	2 - 24	2 - 24
FACE AREA (SQ. FT.)	24	30.8	30.8	30.8
TUBE SIZE (IN.)	3/8	3/8	3/8	3/8
REFRIGERANT CONTROL	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
<b>REFRIGERANT</b>				
LBS. - R-454B (O.D. UNIT) <sup>(g)</sup>	5 LBS., 10 OZ	7 LBS., 14 OZ	8 LBS., 9 OZ	8 LBS., 6 OZ
FACTORY SUPPLIED	YES	YES	YES	YES
LINE SIZE - IN. O.D. GAS <sup>(h) (i)</sup>	3/4	7/8	7/8	7/8
LINE SIZE - IN. O.D. LIQ.	5/16	5/16	5/16	5/16
<b>CHARGING SPECIFICATIONS</b>				
SUBCOOLING	10°F	10°F	10°F	10°F
<b>DIMENSIONS</b>	H x W x D	H x W x D	H x W x D	H x W x D
CRATED (IN.)	38.5 x 35 x 37.9	50.5 x 35 x 37.9	50.5 x 35 x 37.9	50.5 x 35 x 37.9
<b>WEIGHT</b>				
SHIPPING (LBS.)	256	301	301	301
NET (LBS.)	222	251	251	251
<b>OPTIONAL ACCESSORIES:</b>				
ANTI-SHORT CYCLE TIMER	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
EVAPORATOR DEFROST CONTROL	NA	NA	NA	NA
RUBBER ISOLATOR KIT	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
EXTREME CONDITION MOUNT KIT	BAYECMT004	BAYECMT004	BAYECMT004	BAYECMT004
SOUND ENCLOSURE	BAYSDEN003	BAYSDEN004	BAYSDEN004	BAYSDEN004
SEACOAST KIT	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
LOW AMBIENT KIT	BAYLOAM107	BAYLOAM103	BAYLOAM103	BAYLOAM103
SERVICE VALVE PANEL COVER	TAYSVPANL0044AA	TAYSVPANL0046AA	TAYSVPANL0046AA	TAYSVPANL0046AA
REFRIGERANT LINESET <sup>(j)</sup>				

<sup>(a)</sup> Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

<sup>(b)</sup> Rated in accordance with AHRI standard 270.

<sup>(c)</sup> Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

<sup>(d)</sup> This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.

**Table 2. 3-Phase, 208/230V (continued)**

- (e) No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.
- (f) Standard Air - Dry Coil - Outdoor
- (g) This value approximate. For more precise value see unit nameplate.
- (h) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the *refrigerant piping software pub # 32-3312-xx* or *refrigerant piping application guide* (SS-APG006-xx) for long line sets or specialty applications (xx denotes latest revision).
- (i) The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, ten (10) feet of tested connecting line, and the smallest rated indoor evaporative coil match. Always verify proper system charge via subcooling (TXV/EEV) or superheat (fixed orifice) per the unit nameplate.
- (j) 25, 30, 35 and 50 foot linesets available. For a complete listing of lineset options available from equipment or supply stores, refer to the Trane Residential and Light Commercial Product Handbook.

**Table 3. 4-Phase, 460V**

<b>OUTDOOR UNIT</b> (a) (b)	5TWA4036A4000A	5TWA4042A4000A	5TWA4048A4000A	5TWA4060A4000A
POWER CONNS. - V/PH/Hz (c)	460/3/60	460/3/60	460/3/60	460/3/60
MIN. BRCH. CIR. AMPACITY	6.8	8.6	9.4	11
BR. CIR. PROT. RTG. - MAX. (AMPS)	15	15	15	15
<b>COMPRESSOR</b>	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL
NO. USED - NO. STAGES	1 - 1	1 - 1	1 - 1	1 - 1
VOLTS/PH/Hz	460/3/60	460/3/60	460/3/60	460/3/60
R.L. AMPS (d) - L.R. AMPS	5.1 - 44.3	5.8 - 50.0	6.4 - 50.0	7.7 - 69.0
FACTORY INSTALLED				
START COMPONENTS (e)	NO	NO	NO	NO
INSULATION/SOUND BLANKET	NO	NO	NO	NO
COMPRESSOR HEAT	YES	YES	YES	YES
<b>OUTDOOR FAN</b>	PROPELLER	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.) - NO. USED	27.5 - 1	27.5 - 1	27.5 - 1	27.5 - 1
TYPE DRIVE - NO. SPEEDS	DIRECT - 1	DIRECT - 1	DIRECT - 1	DIRECT - 1
CFM @ 0.0 IN. W.G. (f)	4230	4992	4992	4992
NO. MOTORS - HP	1 - 1/8	1 - 1/3	1 - 1/3	1 - 1/3
MOTOR SPEED R.P.M.	825	850	850	850
VOLTS/PH/Hz	460/1/60	460/1/60	460/1/60	460/1/60
F.L. AMPS	0.38	1.4	1.4	1.4
<b>OUTDOOR COIL - TYPE</b>	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS - F.P.I.	1 - 24	2 - 24	2 - 24	2 - 24
FACE AREA (SQ. FT.)	24	30.8	30.8	30.8
TUBE SIZE (IN.)	3/8	3/8	3/8	3/8
REFRIGERANT CONTROL	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE
<b>REFRIGERANT</b>				
LBS. - R-454B (O.D. UNIT) (g)	5 LBS., 10 OZ	7 LBS., 14 OZ	8 LBS., 9 OZ	8 LBS., 6 OZ
FACTORY SUPPLIED	YES	YES	YES	YES
LINE SIZE - IN. O.D. GAS (h) (i)	3/4	7/8	7/8	7/8
LINE SIZE - IN. O.D. LIQ.	5/16	5/16	5/16	5/16
<b>CHARGING SPECIFICATIONS</b>				
SUBCOOLING	10°F	10°F	10°F	10°F
<b>DIMENSIONS</b>	H x W x D	H x W x D	H x W x D	H x W x D
CRATED (IN.)	38.5 x 35 x 37.9	50.5 x 35 x 37.9	50.5 x 35 x 37.9	50.5 x 35 x 37.9
<b>WEIGHT</b>				
SHIPPING (LBS.)	256	301	301	301
NET (LBS.)	222	251	251	251
<b>OPTIONAL ACCESSORIES:</b>				
ANTI-SHORT CYCLE TIMER	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
EVAPORATOR DEFROST CONTROL	NA	NA	NA	NA
RUBBER ISOLATOR KIT	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
EXTREME CONDITION MOUNT KIT	BAYECMT004	BAYECMT004	BAYECMT004	BAYECMT004
SOUND ENCLOSURE	BAYSDEN003	BAYSDEN004	BAYSDEN004	BAYSDEN004



## Product Specifications

**Table 3. 4-Phase, 460V (continued)**

CRANKCASE KIT	BAYCCHT302	BAYCCHT301	BAYCCHT301	BAYCCHT301
START KIT	BAYKSKT263	BAYKSKT263	BAYKSKT263	BAYKSKT263
SEACOAST KIT	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
LOW AMBIENT KIT	BAYLOAM107	BAYLOAM103	BAYLOAM103	BAYLOAM103
SERVICE VALVE PANEL COVER	TAYSVPANL3343AA	TAYSVPANL0046AA	TAYSVPANL0046AA	TAYSVPANL0046AA
REFRIGERANT LINESET <sup>(j)</sup>				

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

(b) Rated in accordance with AHRI standard 270.

(c) Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

(d) This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.

(e) No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.

(f) Standard Air - Dry Coil - Outdoor

(g) This value approximate. For more precise value see unit nameplate.

(h) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the *refrigerant piping software pub # 32-3312-xx or refrigerant piping application guide (SS-APG006-xx)* for long line sets or specialty applications (xx denotes latest revision).

(i) The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, ten (10) feet of tested connecting line, and the smallest rated indoor evaporative coil match. Always verify proper system charge via subcooling (TXV/EEV) or superheat (fixed orifice) per the unit nameplate.

(j) 25, 30, 35 and 50 foot linesets available. For a complete listing of lineset options available from equipment or supply stores, refer to the Trane Residential and Light Commercial Product Handbook.



# Sound Power Level

Table 4. Sound power level

Sound Power Level									
MODEL	A-Weighted Sound Power Level [dB(A)]	Full Octave Sound Power(dB)							
		63 Hz*	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
5TWA4036A3	76	78	75	77	75	70	64	61	56
5TWA4042A3	74	72	72	71	69	70	62	57	52
5TWA4048A3	74	72	72	71	69	70	62	57	52
5TWA4060A3	76	78	75	77	75	70	64	61	56
5TWA4036A4	76	78	75	77	75	70	64	61	56
5TWA4042A4	74	72	72	71	69	70	62	57	52
5TWA4048A4	74	72	72	71	69	70	62	57	52
5TWA4060A4	76	78	75	77	75	70	64	61	56

**Note:** Rated in accordance with AHRI Standard 270-2008 \*For reference only.



## 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.

**Evaporation 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.

**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

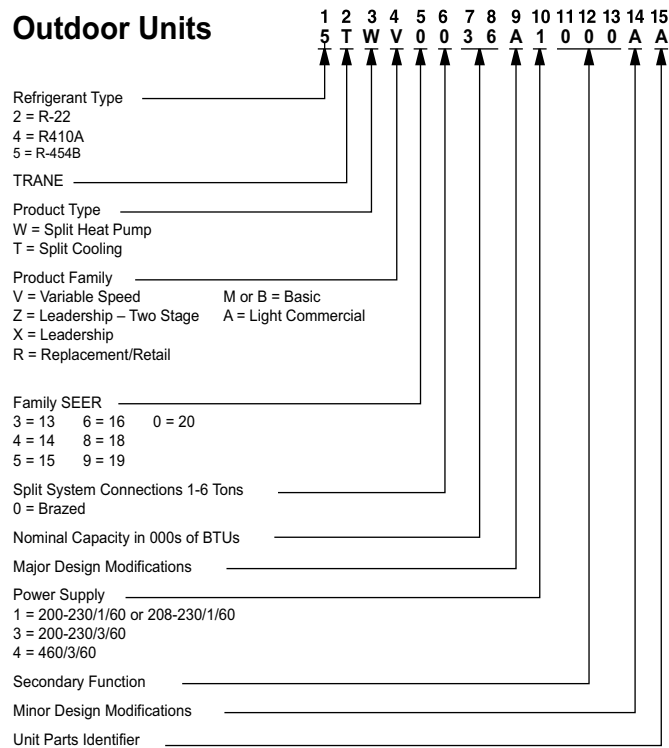
AHRI Standard 210/240 Rating Conditions

1. Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
2. High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
3. Low Temperature Heating 17°F DB air entering outdoor coil.
4. 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 operations.) Standard Noise Rating number is at 95°F outdoor air.

## Model Nomenclature

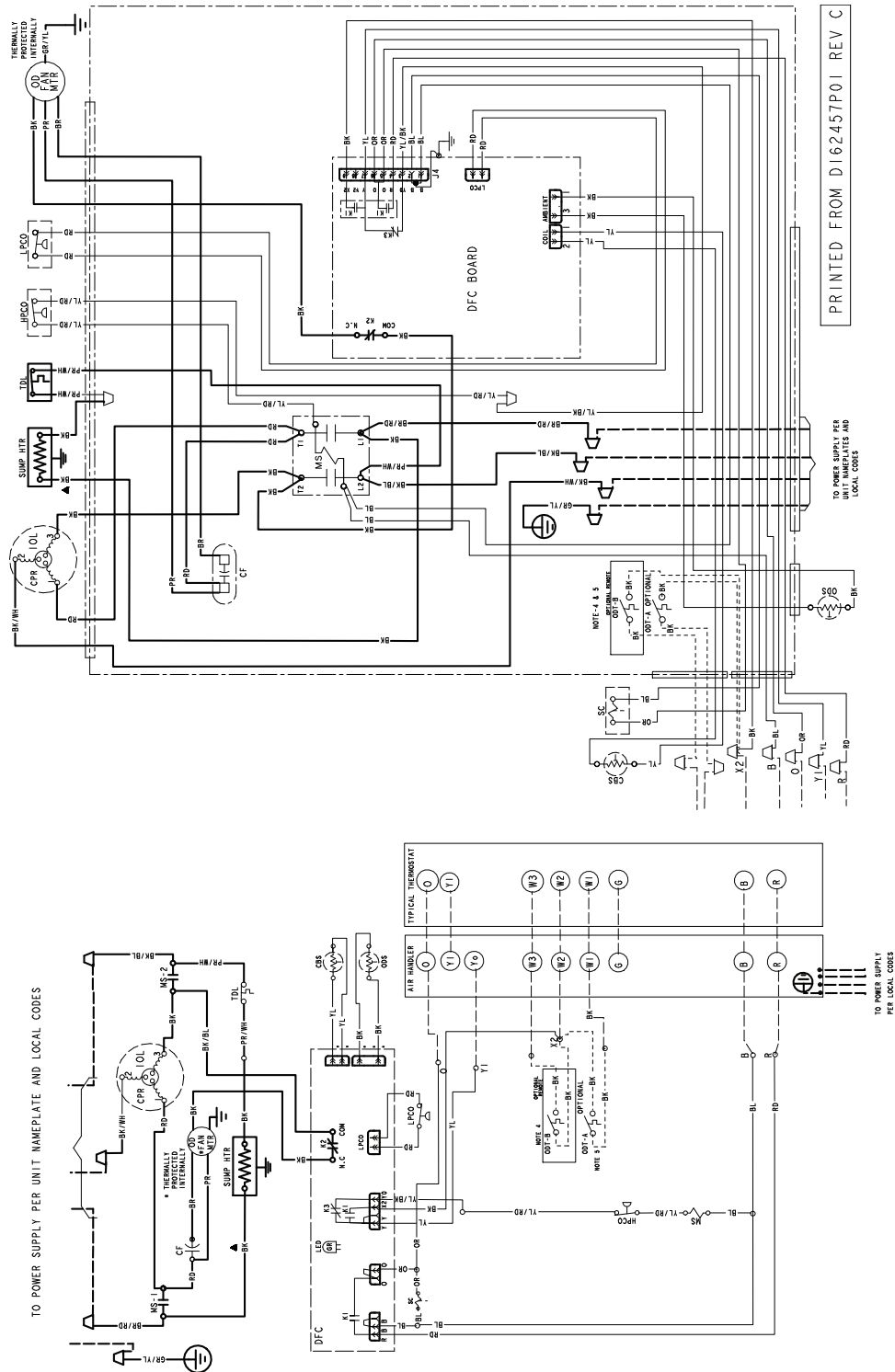
### Outdoor Units





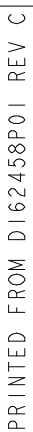
# Wiring Diagram

Figure 1. 036A3 models



## Wiring Diagram

**Figure 2. 042A3, 048A3, and 060A3 models**



**Figure 3. 036A4 models**

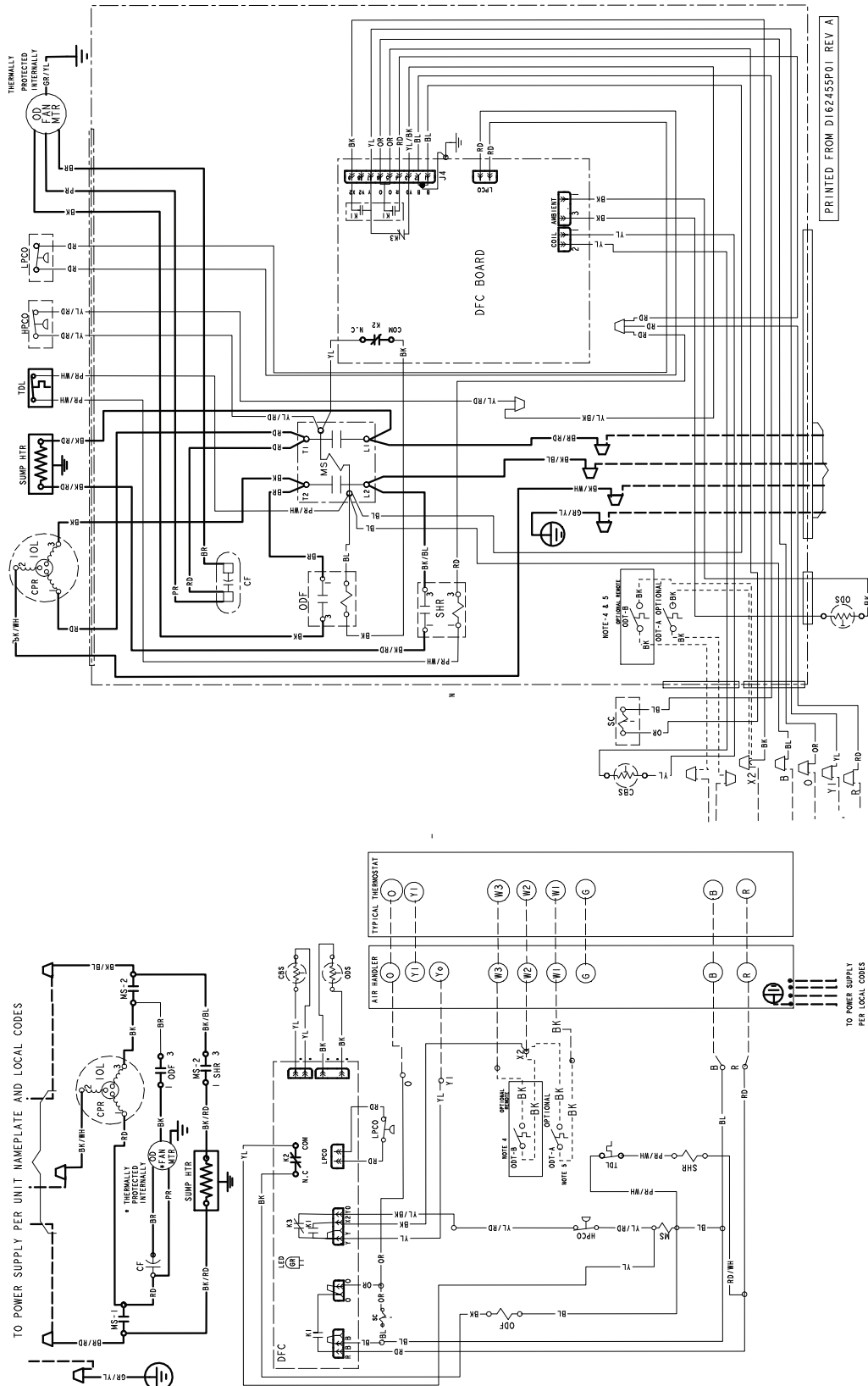
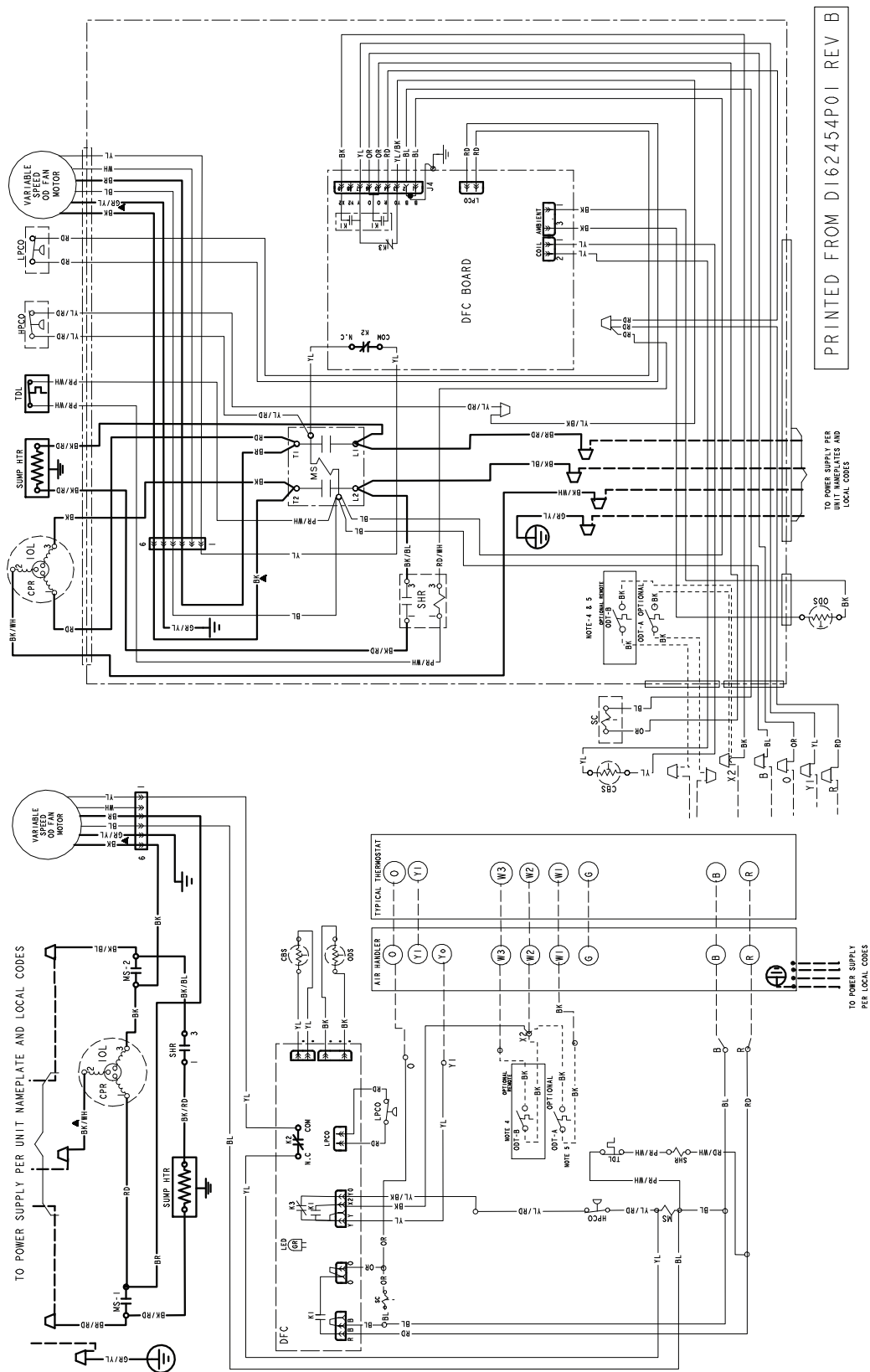


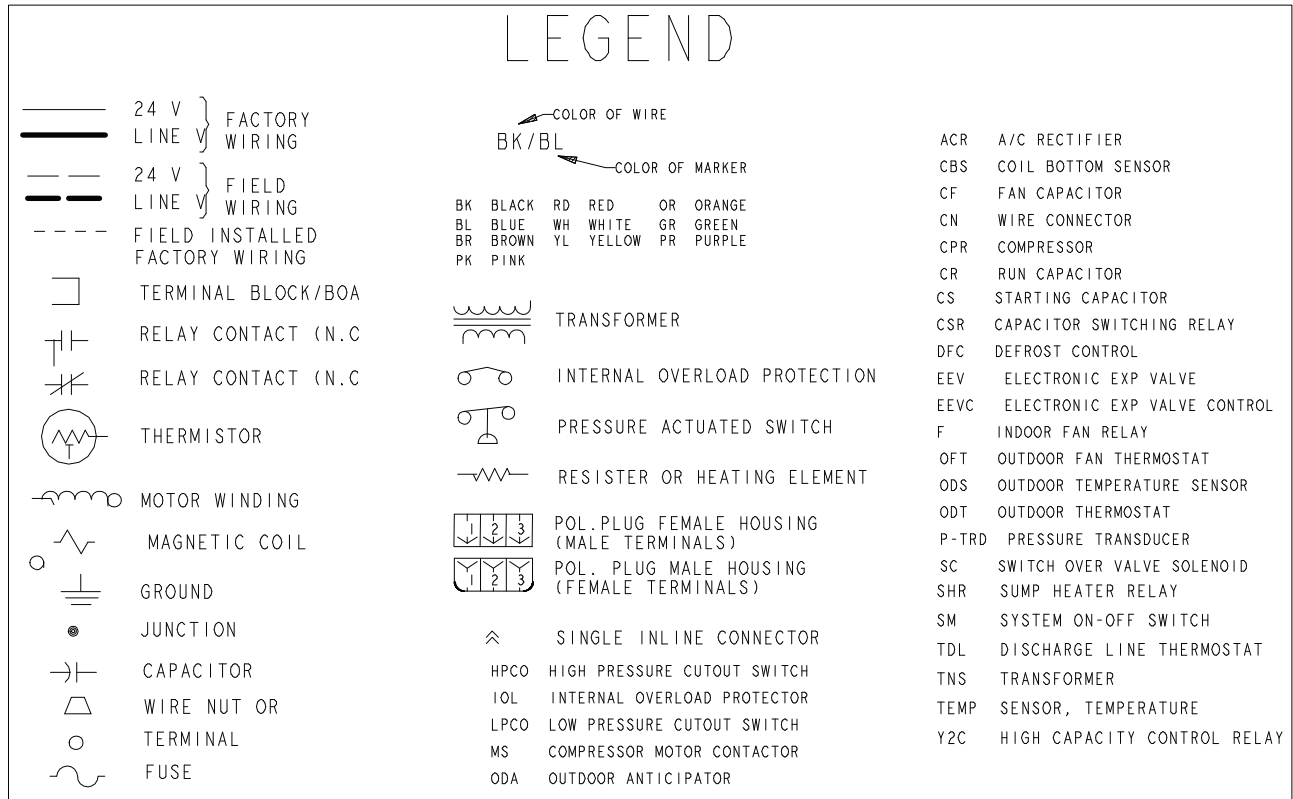
Figure 4. 042A4, 048A4, and 060A4 models



**Figure 5. Legend and warnings**

NOTES:

1. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE.
2. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
3. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
4. ODT-B MUST BE SET LOWER THAN ODT-A, IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 AND W3 AT AIR HANDLER, IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHERPROOF ENCLOSURE
5. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 AND W2 AT AIR HANDLER



R-454B REFRIGERANT CHARGING CHART							
LIQUID TEMP (°F)	DESIGN SUBCOOLING (°F)						
	8	9	10	11	12	13	14
LIQUID GAGE PRESSURE (PSI)							
55	170	172	175	178	181	184	187
60	184	187	190	194	197	200	203
65	200	203	206	210	213	217	220
70	217	220	223	227	230	234	238
75	234	238	241	245	249	252	256
80	252	256	260	264	268	272	276
85	272	276	280	284	288	292	297
90	292	297	301	305	309	314	318
95	314	318	323	327	332	336	341
100	336	341	346	351	355	360	365
105	360	365	370	375	380	385	390
110	385	390	396	401	406	412	417
115	412	417	422	428	433	439	445
120	439	445	450	456	462	468	474
125	468	474	480	486	492	498	504

### ⚠ WARNING

HAZARDOUS VOLTAGE!  
 DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.  
 Failure to disconnect power before servicing can cause severe personal injury or death.

### ⚠ CAUTION

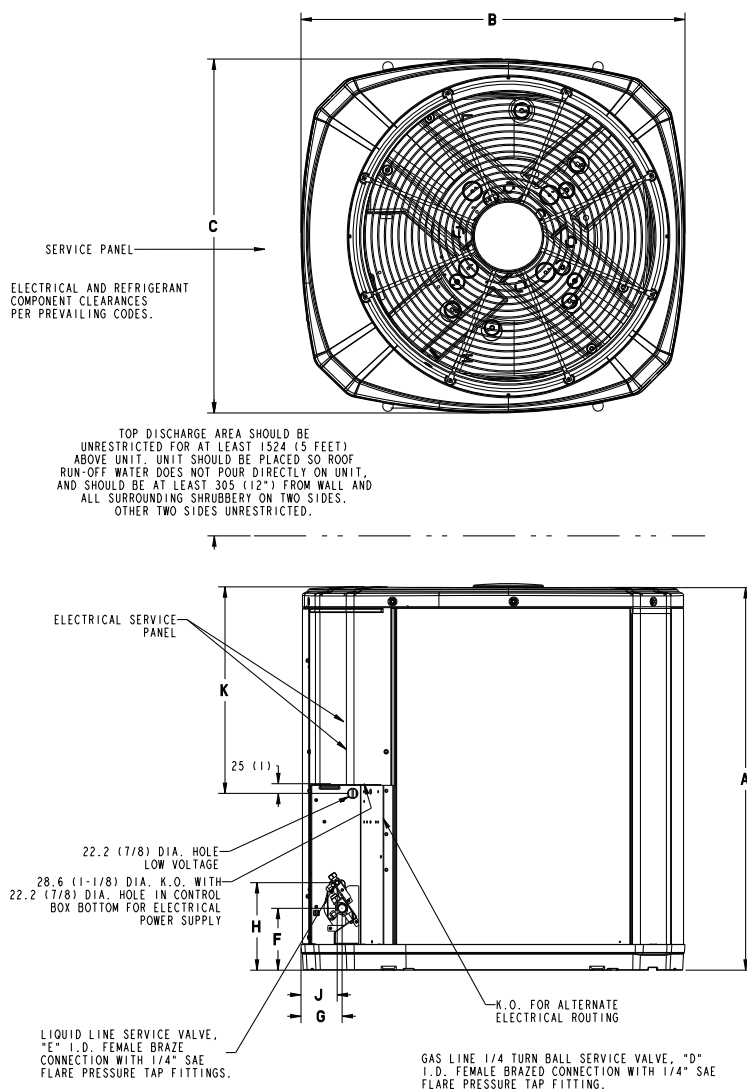
USE COPPER CONDUCTORS ONLY!  
 UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. Failure to do so may cause damage to the equipment.

### ▲ NOTE:

MATERIAL: WHITE POLYPROPYLENE SUITABLE FOR USE IN OUTDOOR ENVIRONMENT.  
 ADHESIVE: PRESSURE SENSITIVE ADHESIVE WITH RELEASE PAPER SUITABLE FOR OUTDOOR APPLICATION ON PAINTED OR GALVANIZED SHEET METAL SURFACES  
 SIZE: 6 1/2" X 11"

# Dimensional Data

**Figure 6. Dimensional data**



**Table 5. Unit dimensions**

Model	Base	A	B	C	D	E	F	G	H	J	K
5TWA4036-A3000A	4	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	5/16	143 (5-5/8)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
5TWA4042-A3000A	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
5TWA4048-A3000A	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
5TWA4060-A3000A	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
5TWA4036-A4000A	4	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	5/16	143 (5-5/8)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
5TWA4042-A4000A	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
5TWA4048-A4000A	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
5TWA4060-A4000A	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	5/16	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)



# Mechanical Specification Options

## General

The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, ten (10) feet of tested connecting line, and the smallest rated indoor evaporative coil match. 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 is certified to UL 60335-2-40. Exterior is designed for outdoor application.

## Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint finish. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test.

## Refrigerant Controls

Refrigeration system controls include condenser fan, compressor contactor and low and high pressure switches. A factory supplied, field installed liquid line drier is standard.

## Compressor

The compressor features internal over temperature and pressure protection. 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 system has a cooling capacity 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.

The addition of the BAYLOAM107A low ambient kit permits ambient cooling to 20°F.

The addition of the BAYLOAM108 low ambient kit permits ambient cooling to 20°F.

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



Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit [trane.com](http://trane.com) or [tranetechnologies.com](http://tranetechnologies.com).



The AHRI Certified mark indicates Trane U.S. Inc. participation in the AHRI Certification program. For verification of individual certified products, go to [ahridirectory.org](http://ahridirectory.org).

Trane 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.