



**4TWX6060-SF-1B**

# Service Facts

## Split System Heat Pump 4TWX6060B1000A

**⚠ CAUTION**

**UNIT CONTAINS R-410A REFRIGERANT!**  
R-410A OPERATING PRESSURE EXCEEDS THE LIMIT OF R-22. PROPER SERVICE EQUIPMENT IS REQUIRED. FAILURE TO USE PROPER SERVICE TOOLS MAY RESULT IN EQUIPMENT DAMAGE OR PERSONAL INJURY.

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**SERVICE**  
USE ONLY R-410A REFRIGERANT AND APPROVED POE COMPRESSOR OIL.

**IMPORTANT** — This document contains a wiring diagram, a parts list, and service information. This is customer property and is to remain with this unit. Please return to service information pack upon completion of work.

**⚠ WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER and DISCHARGE CAPACITORS BEFORE SERVICING**

### PRODUCT SPECIFICATIONS

OUTDOOR UNIT ①②	4TWX6060B1000A
<b>POWER CONNS.</b> — V/PH/HZ ③	230/1/60
MIN. BRCH. CIR. AMPACITY	35
BR. CIR. } MAX. (AMPS)	60
PROT. RTG. } MIN. (AMPS)	60
<b>COMPRESSOR</b>	CLIMATUFF® - SCROLL
NO. USED - NO. SPEEDS	1 - 1
VOLTS/PH/HZ	230/1/60
R.L. AMPS ⑦ - L.R. AMPS	25.6 - 118
FACTORY INSTALLED	
START COMPONENTS ⑧	YES
INSULATION/SOUND BLANKET	YES
COMPRESSOR HEAT	YES
<b>OUTDOOR FAN</b>	PROPELLER
DIA. (IN.) - NO. USED	27.6 - 1
TYPE DRIVE - NO. SPEEDS	DIRECT - 1
CFM @ 0.0 IN. W.G. ④	4400
NO. MOTORS - HP	1 - 1/3
MOTOR SPEED R.P.M.	850
VOLTS/PH/HZ	200/230/1/60
F.L. AMPS	2.8
<b>OUTDOOR COIL</b> — TYPE	SPINE FIN™
ROWS - F.P.I.	2 - 24
FACE AREA (SQ. FT.)	26.32
TUBE SIZE (IN.)	5/16
REFRIGERANT CONTROL	EXPANSION VALVE
<b>REFRIGERANT</b>	
LBS. — R-410A (O.D. UNIT) ⑤	11 LBS. - 3 OZ.
FACTORY SUPPLIED	YES
LINE SIZE - IN. O.D. GAS ⑥	7/8
LINE SIZE - IN. O.D. LIQ. ⑥	3/8
<b>FCCV</b>	
RESTRICTOR ORIFICE SIZE	N/A
<b>DIMENSIONS</b>	H X W X D
CRATED (IN.)	53.4 x 35.1 x 38.7
<b>WEIGHT</b>	
SHIPPING (LBS.)	361
NET (LBS.)	313

### TUBING INFORMATION

Tubing Sizes		Tubing Length	Additional Refrigerant
Suction	Liquid		
7/8"	3/8"	20'	4 oz.
7/8"	3/8"	30'	11 oz.
7/8"	3/8"	40'	18 oz.
7/8"	3/8"	50'	25 oz.
7/8"	3/8"	60'	32 oz.

Tubing lengths in excess of eighty (80) feet see application software.

- ① Certified in accordance with the Air-Source Unitary Heat Pump Equipment certification program, which is based on A.R.I. standard 210/240.
- ② Rated in accordance with A.R.I. standard 270.
- ③ Calculated in accordance with Natl. Elec. Codes. Only use HACR circuit breakers or fuses.
- ④ Standard Air — Dry Coil — Outdoor
- ⑤ This value approximate. For more precise value see unit nameplate.
- ⑥ Max. linear length 80 ft.; Max. lift - Suction 25 ft.; Max lift - Liquid 25 ft. For greater length consult refrigerant piping software Pub. No. 32-3312-0\* (\* denotes latest revision).
- ⑦ 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.
- ⑧ No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

**E - SPLIT HEAT PUMP**

**⚠ CAUTION**

**HOT SURFACE!**  
**DO NOT TOUCH TOP OF COMPRESSOR.**  
May cause minor to severe burning.

**⚠ CAUTION**

**CONTAINS REFRIGERANT!**  
**SYSTEM CONTAINS OIL AND REFRIGERANT UNDER HIGH PRESSURE. RECOVER REFRIGERANT TO RELIEVE PRESSURE BEFORE OPENING SYSTEM.**  
Failure to follow proper procedures can result in personal illness or injury or severe equipment damage.

**⚠ WARNING**

THIS INFORMATION IS INTENDED FOR USE BY INDIVIDUALS POSSESSING ADEQUATE BACKGROUNDS OF ELECTRICAL AND MECHANICAL EXPERIENCE. ANY ATTEMPT TO REPAIR A CENTRAL AIR CONDITIONING PRODUCT MAY RESULT IN PERSONAL INJURY AND OR PROPERTY DAMAGE. THE MANUFACTURER OR SELLER CANNOT BE RESPONSIBLE FOR THE INTERPRETATION OF THIS INFORMATION, NOR CAN IT ASSUME ANY LIABILITY IN CONNECTION WITH ITS USE.

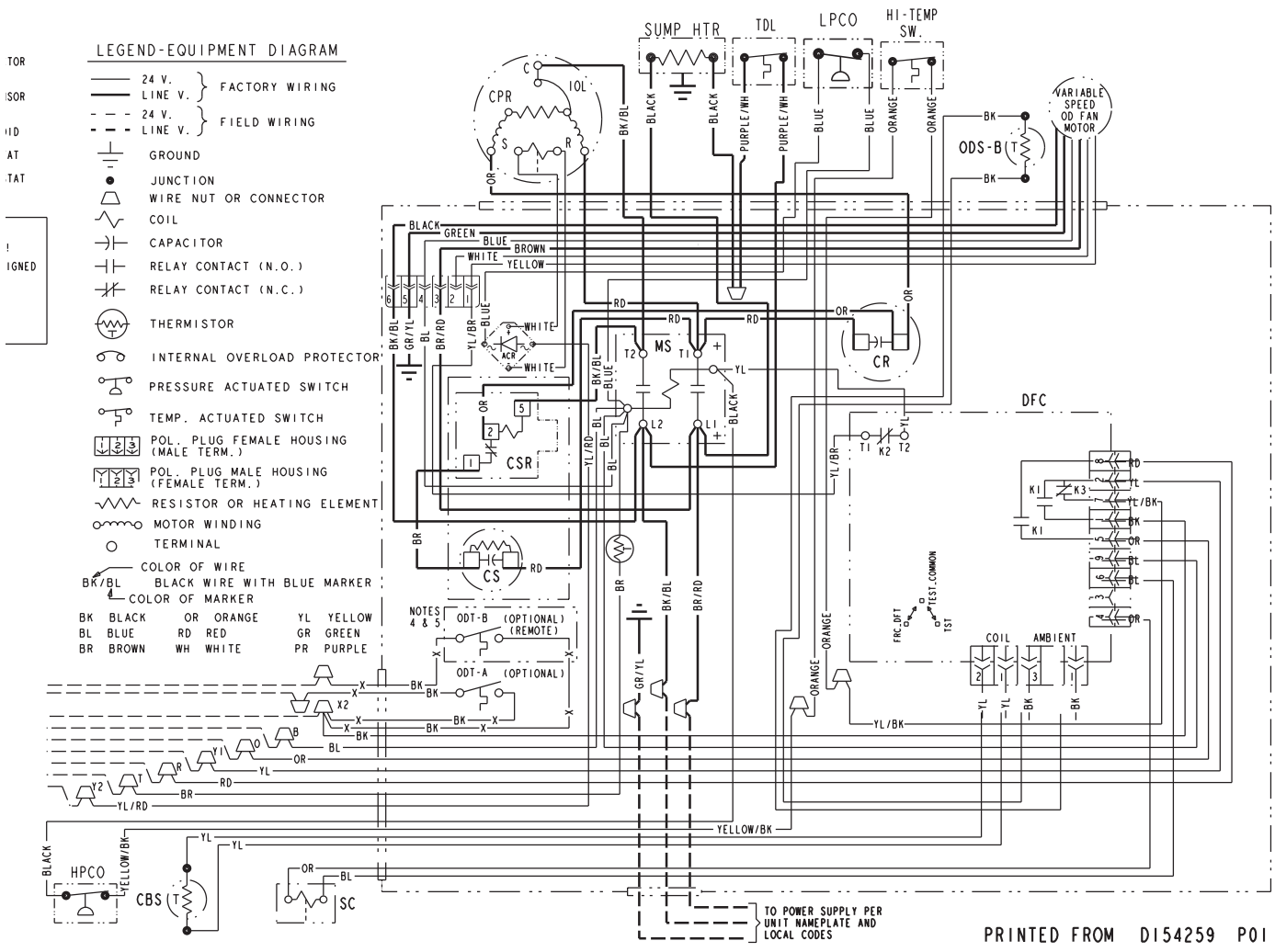
**⚠ CAUTION**

RECONNECT ALL GROUNDING DEVICES. ALL PARTS OF THIS PRODUCT CAPABLE OF CONDUCTING ELECTRICAL CURRENT ARE GROUNDED. IF GROUNDING WIRES, SCREWS, STRAPS, CLIPS, NUTS OR WASHERS USED TO COMPLETE A PATH TO GROUND ARE REMOVED FOR SERVICE, THEY MUST BE RETURNED TO THEIR ORIGINAL POSITION AND PROPERLY FASTENED.

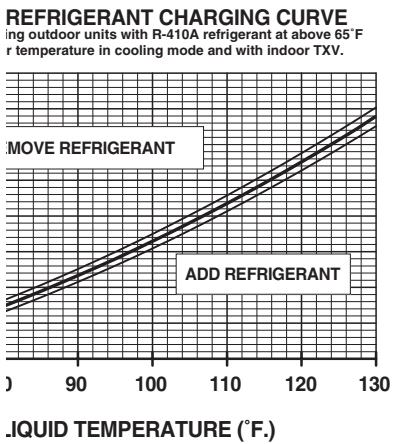
**NOTICE:** Trane has a policy of continuous product and product data improvement and it reserves the right to change design and specifications without notice.



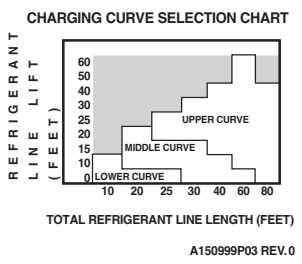
### WIRING DIAGRAM



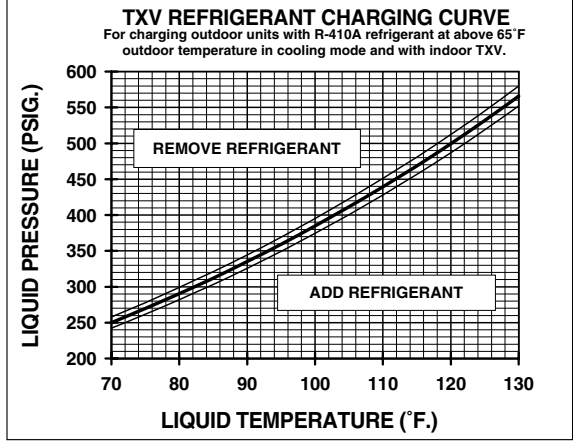
### FIRST STAGE ONLY



- Whenever charge is removed or added, the system must be operated for a minimum 20 minutes to stabilize before additional measurements can be made.
- When system is correctly charged refer to System Performance Curves to verify charge and performance.

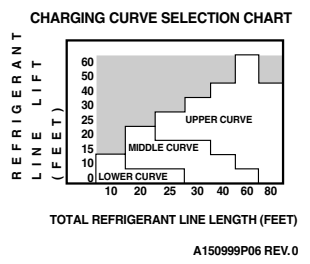


### FOR SECOND STAGE ONLY

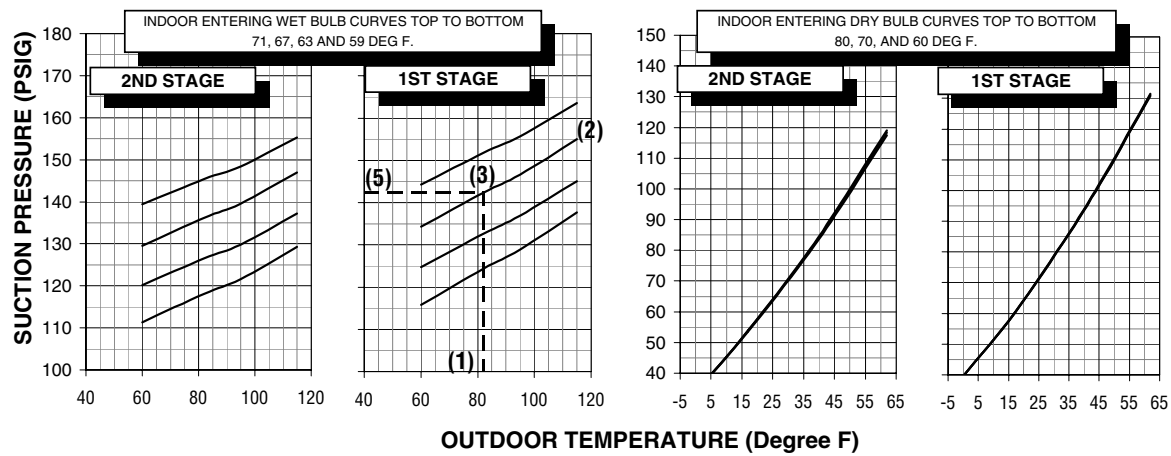
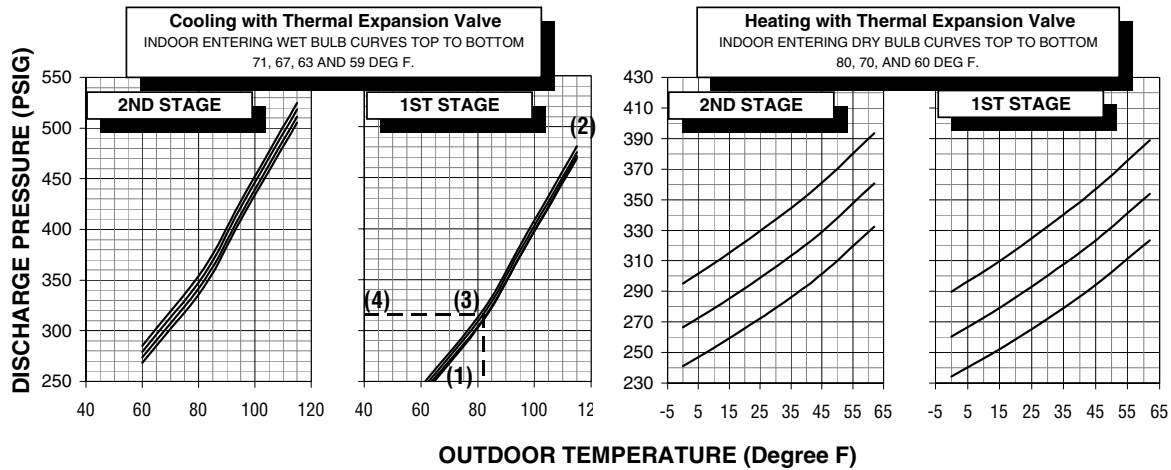


- Measure Liquid Line Temperature and Refrigerant Pressure at service valves.
- Determine total refrigerant pipe length and height (lift) if indoor section is above the condenser. Plot the intersection of the two points on the Curve Selection Chart to determine which curve to use.
- Plot the pressure and temperature on the TXV Charging Curve.
- If the lines cross above the curve remove refrigerant, if below curve add refrigerant.

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**PRESSURE CURVES FOR 4TWX6060B1000A**  
**4TEE3F65A** **4TEE3F65A**



**COOLING PERFORMANCE CAN BE CHECKED WHEN THE OUTDOOR TEMP IS ABOVE 65 DEG F.**

TO CHECK COOLING PERFORMANCE, SELECT THE PROPER INDOOR CFM, ALLOW PRESSURES TO STABILIZE. MEASURE INDOOR WET BULB TEMPERATURE, OUTDOOR TEMPERATURE, DISCHARGE AND SUCTION PRESSURES. ON THE PLOTS LOCATE OUTDOOR TEMPERATURE (1); LOCATE INDOOR WET BULB (2); FIND INTERSECTION OF OD TEMP. & ID W.B. (3); READ DISCHARGE OR SUCTION PRESSURE IN LEFT COLUMN (4).

- EXAMPLE: (1) OUTDOOR TEMP. 82 F.  
 (2) INDOOR WET BULB 67 F.  
 (3) AT INTERSECTION  
 (4) DISCHARGE PRESSURE @ 1060 CFM IS 316 PSIG  
 (5) SUCTION PRESSURE @ 1775 CFM IS 142 PSIG

ACTUAL:  
 DISCHARGE PRESSURE SHOULD BE +/- 10 PSI OF CHART  
 SUCTION PRESSURE SHOULD BE +/- 3 PSIG OF CHART

**INTERCONNECTING LINES**  
 GAS - 7/8" O.D.  
 LIQUID - 3/8" O.D.

DWG.NO. 4TWX6060B1

**FIRST STAGE**

**ALTERNATE INDOOR UNITS WITH THERMAL EXPANSION VALVE**

INDOOR UNIT	CFM	PRESSURE CURVE CORRECTION PSIG			
		—COOLING—		—HEATING—	
		SUCT. PRESS	HEAD PRESS	SUCT. PRESS	HEAD PRESS
* 4TEE3F65A	1285	0	0	0	0
TDD100R9V5+RXH063S3	1442	2	1	0	17
TDD120R9V5+RXH063S3	1526	3	1	0	12
TDY120R9V5+RXC061S3	1293	-5	-2	1	51
TDY120R9V5+RXH063S3	1304	0	0	1	28
TUD100R9V5+RXC061S3	1453	-2	-1	1	38
TUD100R9V5+RXH063S3	1474	3	1	0	15
TUD100R9V5+RXC065S3	1472	-2	-1	1	25
TUD120R9V5+RXC061S3	1472	-2	-1	1	36
TUD120R9V5+RXH063S3	1487	3	1	0	15
TUD120R9V5+RXC065S3	1487	-2	-1	1	25
TUD140R9V5+RXC061S3	1468	-2	-1	1	36
TUD140R9V5+RXH063S3	1479	3	1	0	15
TUD140R9V5+RXC065S3	1479	-2	-1	1	25
TUY120R9V5+RXH063S3	1352	1	0	1	24
TUY120R9V5+RXC061S3	1344	-4	-2	1	46
TUY120R9V5+RXC065S3	1352	-4	-2	1	34

**SECOND STAGE**

**ALTERNATE INDOOR UNITS WITH THERMAL EXPANSION VALVE**

INDOOR UNIT	CFM	PRESSURE CURVE CORRECTION PSIG			
		—COOLING—		—HEATING—	
		SUCT. PRESS	HEAD PRESS	SUCT. PRESS	HEAD PRESS
* 4TEE3F65A	1763	0	0	0	0
TDD100R9V5+RXH063S3	1900	2	1	1	16
TDD120R9V5+RXH063S3	2000	3	2	0	11
TDY120R9V5+RXC061S3	1713	-5	-5	2	53
TDY120R9V5+RXH063S3	1728	-1	-1	1	27
TUD100R9V5+RXC061S3	1925	-3	-3	1	39
TUD100R9V5+RXH063S3	1950	2	2	0	13
TUD100R9V5+RXC065S3	1950	-3	-2	1	25
TUD120R9V5+RXC061S3	1950	-3	-2	1	37
TUD120R9V5+RXH063S3	1975	2	2	0	12
TUD120R9V5+RXC065S3	1975	-2	-2	1	24
TUD140R9V5+RXC061S3	1945	-3	-2	1	37
TUD140R9V5+RXH063S3	1960	2	2	0	13
TUD140R9V5+RXC065S3	1960	-3	-2	1	25
TUY120R9V5+RXH063S3	1792	0	0	1	22
TUY120R9V5+RXC061S3	1780	-5	-4	2	49
TUY120R9V5+RXC065S3	1790	-4	-4	1	35

\* BASE INDOOR UNIT(S) CURVES ON 4TWX6060B1

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