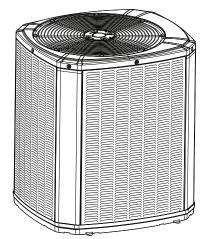


# **Product Data**

### TRANE Link Variable Speed Heat Pumps

4TWV7X24A1000A 4TWV7X36A1000A 4TWV7X48A1000A 4TWV7X60A1000A



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



The Diagnostics Mobile App is available by scanning a QR code located inside this unit or by searching for the Trane or American Standard Diagnostics App in your App Store®. This system must include a A/T HUI2360A200U thermostat and a TSYS2C60A2VVU system controller to operate and is Link communicating only.

22-1987-1A-EN





### **Mechanical Specification Options**

#### General

This unit is designed to operate at outdoor ambient temperatures from  $45^{\circ}$  F to  $120^{\circ}$  F in cooling. From  $-10^{\circ}$  F to  $66^{\circ}$  F in heating (heat pumps only). Only AHRI approved indoor matches are approved for use with these models.

#### **TRANE Link Heat Pumps**

This outdoor unit contains the TRANE Link Heat Pumps digital communication with Plug-n-Play set up.

#### Casing

Unit casing is constructed of heavy gauge. G60 galvanized steel and painted with a weatherresistant powder paint on all louvered panels and prepaint on all other panels. Corrosion and weatherproof CMBP-G30 DuraTuff<sup>™</sup> base.

#### **Refrigerant Controls**

Refrigeration system controls include condenser fan, compressor inverter drive and high and low pressure switches. A factory supplied, field installed filter is standard.

#### Compressor

Inverter driven scroll compressor with 25 to 100% output capacity on heat pumps and 30 to 100% output capacity on air conditioners. Noise enclosure minimizes sound levels and built in compressor protection protects compressor will reduce operating speed and current draw to maintain operation while protecting the compressor.

#### **Condenser** Coil

The Spine Fin<sup>™</sup> 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 built in freeze protection that will allow cooling operation below 45°F but will reduce capacity or shut down completely to prevent operation under adverse conditions.

#### **Comfort Control**

This system must include a A/T HUI2360A200U thermostat and a TSYS2C60A2VVU system controller to operate and is Link communicating only.



### **Product Specifications**

#### **Heat Pump Models**

OUTDOOR UNIT (a) (b)	4TWV7X24A1000A	4TWV7X36A1000A	4TWV7X48A1000A	4TWV7X60A1000A
POWER CONNS. – V/PH/HZ (c)	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
MIN. BRCH. CIR. AMPACITY	19.4	27.0	42.0	46.1
BR. CIR. PROT. RTG. – MAX. (AMPS)	25	30	45	50
COMPRESSOR	SCROLL	SCROLL	SCROLL	SCROLL
NO. USED - NO. SPEEDS	1-VARIABLE	1-VARIABLE	1-VARIABLE	1-VARIABLE
R.L. AMPS (d) – L.R. AMPS	11.5 - 10.2	18.1 - 10.2	20.3 - 12.0	27.5 - 12.0
FACTORY INSTALLED				
START COMPONENTS (e)	NA	NA	NA	NA
INSULATION/SOUND BLANKET	YES	YES	YES	YES
COMPRESSOR HEAT	YES	YES	YES	YES
OUTDOOR FAN				
DIA. (IN.) – NO. USED	23 - 1	23 - 1	27.5 – 1	27.5 – 1
TYPE DRIVE - NO. SPEEDS	DIRECT – VARIABLE	DIRECT – VARIABLE	DIRECT – VARIABLE	DIRECT – VARIABLE
CFM @ 0.0 IN. W.G. (f)	2680	2850	4467	4757
NO. MOTORS – HP	1 - 1/3	1 - 1/3	1 - 1/2	1 - 1/2
MOTOR SPEED R.P.M.	200 - 1200	200 - 1200	200 - 1200	200 - 1200
VOLTS/PH/HZ	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
F.L. AMPS	1.35	1.35	2.3	2.3
OUTDOOR COIL – TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS – F.P.I.	1 – 24	1 – 24	1 - 24	1 – 24
FACE AREA (SQ. FT.)	19.77	23.75	27.87	30.80
TUBE SIZE (IN.)	3/8	3/8	3/8	3/8
REFRIGERANT	R410-A	R410-A	R410-A	R410-A
LBS. – R-410A (O.D. UNIT) <sup>(g)</sup>	7 lb – 6 oz	8 lb – 13 oz	10 lb – 8 oz	13 lb – 2 oz
FACTORY SUPPLIED	YES	YES	YES	YES
RATED LINE SIZE - IN. O.D. GAS (h)	5/8	3/4	7/8	7/8
RATED LINE SIZE — IN. O.D. LIQ. (h)	3/8	3/8	3/8	3/8
CHARGING SPECIFICATIONS				
SUBCOOLING	10°	10°	10°	10°
DIMENSIONS	HXWXD	HXWXD	HXWXD	HXWXD
CRATED (IN.)	46 X 30 X 33	46 X 30 X 33	46 X 35 X 38	50 X 35 X 38
WEIGHT				
SHIPPING (LBS.)	225	238	268	285
NET (LBS.)	204	217	243	259

(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 270/275.

(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) NA means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

(f) Standard Air – Dry Coil – Outdoor

<sup>(g)</sup> This value approximate. For more precise value see unit nameplate.

(h) Max. linear length 150 ft.; Max. lift - Suction 50 ft.; Max. lift - Liquid 50 ft.



# Sound Data

	A-Weighted		Full Octave Sound Power [dB]								
Model	Mode	Speed	Sound Power Level [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
	Cool	Min	55	70.9	50.3	51.8	52.3	50.4	42.0	37.7	39.9
4TWV7X24A	Cool	Max	66	76.3	65.2	62.7	64.1	60.5	55.7	49.5	45.0
410077244	Heat	Min	61	69.8	52.9	52.8	57.5	55.2	51.9	47.4	46.5
	Heat	Max	70	75.9	66.0	64.7	67.3	65.6	57.0	52.2	47.7
	Cool	Min	56	71.5	51.5	54.7	54.4	52.2	43.1	36.8	38.5
4TWV7X36A	Cool	Max	71	74.1	69.4	65.9	70.5	65.1	59.4	54.2	49.5
4100773564	Heat	Min	61	68.3	52.1	53.9	57.6	55.1	52.9	45.1	47.8
	Heat	Max	75	78.7	70.3	76.3	73.0	68.7	61.1	57.3	53.6
	Cool	Min	62	70.6	55.0	55.9	55.8	59.0	49.9	41.1	42.9
4TWV7X48A	Cool	Max	74	75.7	71.9	73.0	74.2	68.5	63.4	59.1	54.3
4100077484	Heat	Min	63	72.1	59.3	58.7	60.3	58.6	51.3	46.0	45.2
	Heat	Max	76	77.9	74.5	77.0	75.4	69.5	64.4	60.8	56.2
	Cool	Min	58	69.7	59.5	57.6	55.1	52.0	45.0	41.6	42.3
4TWV7X60A	Cool	Max	73	83.9	73.7	73.1	71.2	67.9	64.4	58.9	51.8
+1 W V / AUUA	Heat	Min	61	71.9	61.3	59.0	61.3	56.2	48.7	45.1	45.5
	Heat	Max	74	85.8	75.7	74.4	73.2	68.5	63.6	59.6	55.9

NOTE: Rated in accordance with AHRI Standard 270



### **Optional Accessories:**

Model	4TWV7X24A	4TWV7X36A	4TWV7X48A	4TWV7X60A
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg — Base & Cap 4″ High	BAYLEGS002	BAYLEG2002	BAYLEGS002	BAYLEGS002
Snow Leg — 4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003
Extreme Condition Mounting Kit	BAYECMT023	BAYECMT023	BAYECMT004	BAYECMT004
Refrigerant Lineset (a)				

(a) 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.

### **General Data**

#### AHRI STANDARD 210/240 RATING CONDITIONS

- Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
- High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB entering indoor coil.
- Low Temperature Heating 17°F DB, 15°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- 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.



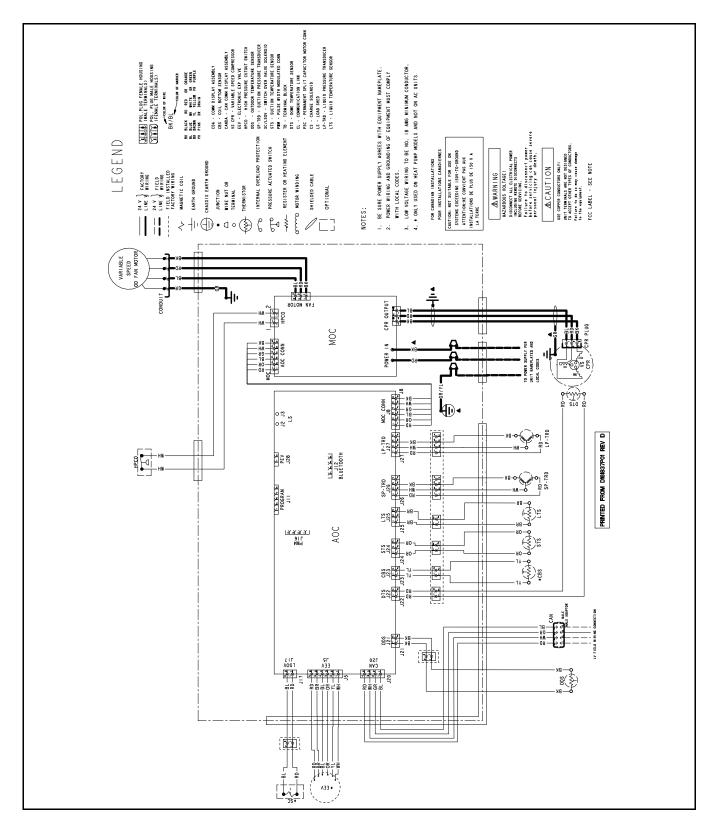
## **Model Nomenclature**

Outdoor Units
Refrigerant Type 2 = R-22 4 = R-410A
Product Type W = Split Heat Pump T = Split Cooling
Product Family V = Variable Speed M or B = Basic Z = Leadership – Two Stage A = Light Commercial X = Leadership R = Replacement/Retail
Family SEER 3 = 13 6 = 16 0 = 20 4 = 14 8 = 18 5 = 15 9 = 19
Split System Connections 1-6 Tons 0 = Brazed
Nominal Capacity in 000s of BTUs
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
S-Series       1 2 3 4 5 6 7 8 9 10 11 12 13 14 15         S 8 V 2 B 0 8 0 U 2 P S A A A         Furnaces
S = Series
AFUE 8 = 80% 9 = 90% or Higher
BI-Base model
P = PSC X = CTM V = Variable Speed
Gas Valve Stages 1 = Single Stage
2 = 2 Stage M= Modulating
Cabinet Width A = 14.5" B = 17.5" C = 21" D = 24.5"
BTU Input 080 = 80,000 BTUH
Poise Options U = 3 Way D = Dedicated Downflow M = 4 Way Poise
Air Capacity for Cooling (in nominal tons) 2 = 2 Tons 3 = 3 Tons 4 = 4 Tons
5 = 5 Tons Inducer Type
P = PSC X = CTM V = Variable Speed
Communicating Capability C = Communicating System Control D = Communicating System Control, Low NOx S = 24 Volt T = 24 Volt, Low NOx
Major Design Change
Minor Design Change

Brand —								
T = Trane G = Good	(Trane Bra	anded)						
Product T A = Air Ha	ype —— ndler							
Con ver ta								
	ooise 4-way v Front Ret							
Product T 2 = Good		el Feature S	Set					
5 = Better 7 = Best,	, Entry Lev Retail Repl Retail Ultim	placement I el High Effy acement Hi nate High Et	،, Multi-۵ igh Effy	Speed				
Major Des	ign Chang	e						
No Descri 0 = Air Ha	ptor – ndler / Coil							
Size (Foo	print) —							
A = 17.5 x B = 21.0 x C = 23.5 x	21.5							
Cooling S 0-9 = AH	ize: Air Ha Coil - 1000	andler or Co BTU's (18,	oil	36, 42, 4	8, 60)	 J		
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Power Su 1 = 208-2	pply —— 30/1/60							
S = Stand C = CLII 1	ontrol Typ ard - 24 VA 3.8 VDC	e AC Link commu	inicating	)		 		
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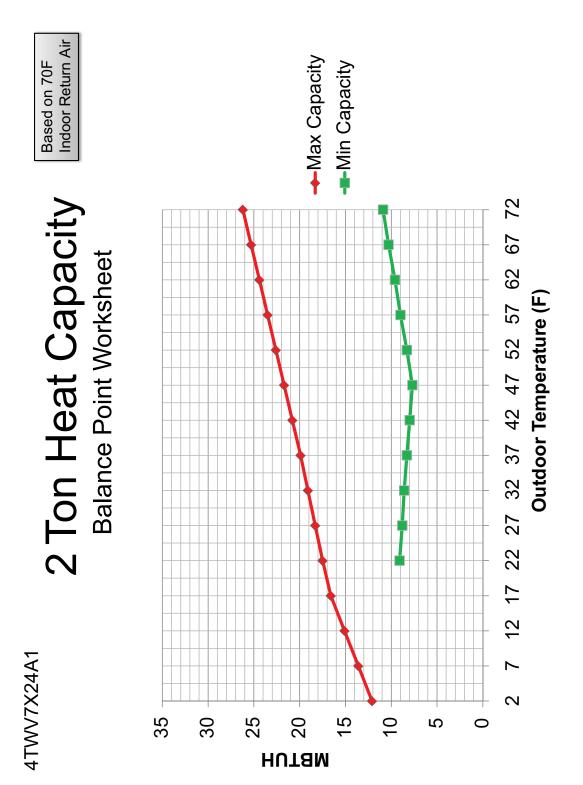


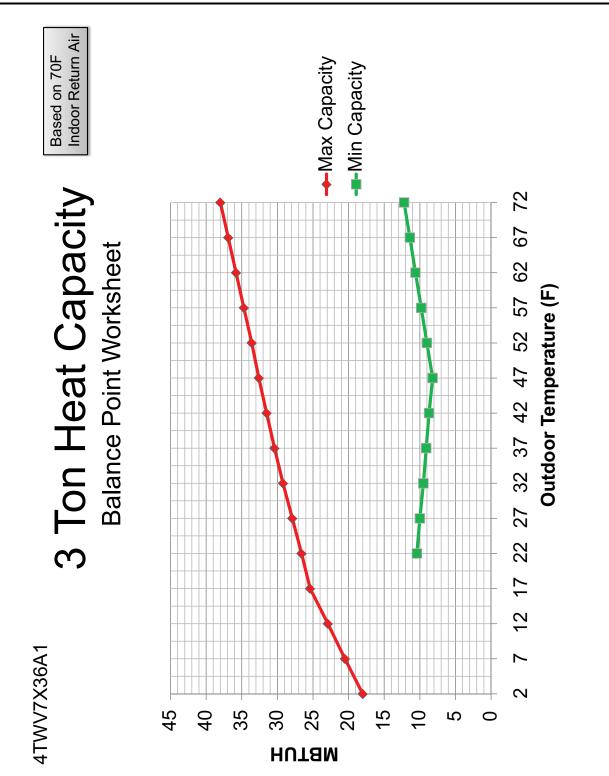
### Wiring

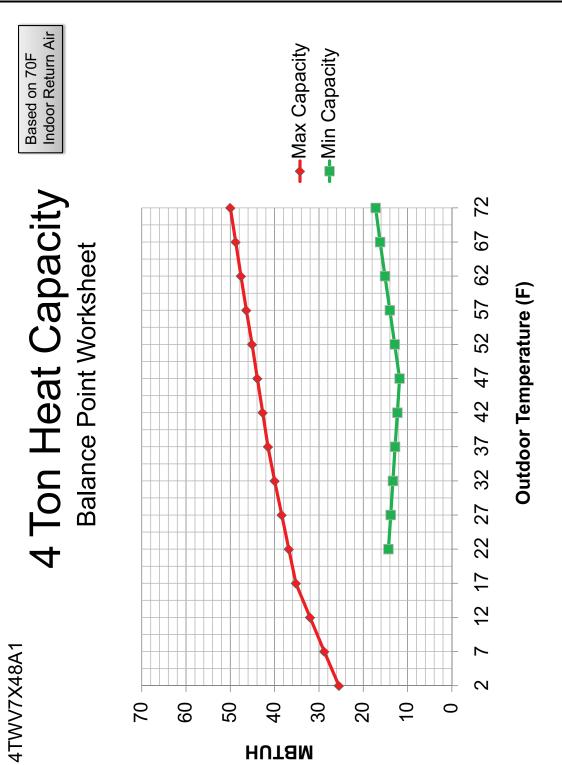


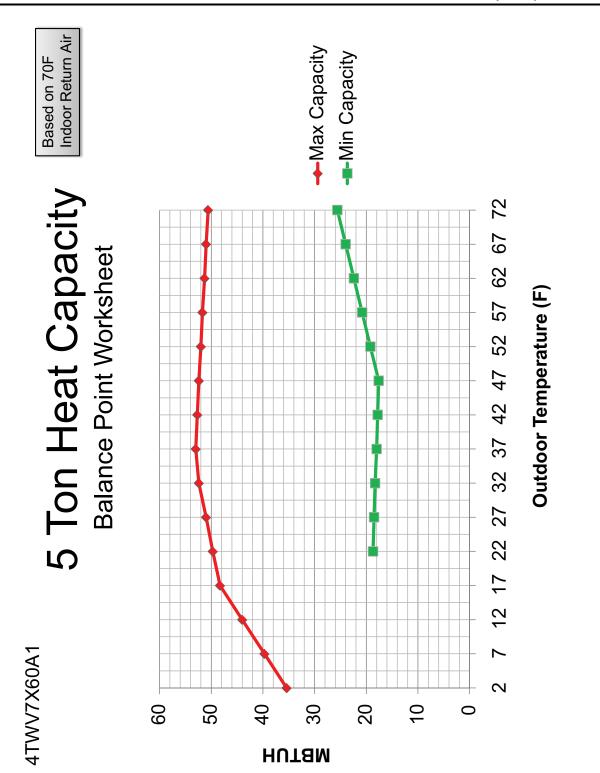


### **Balance Point Heat Capacity Worksheets**











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