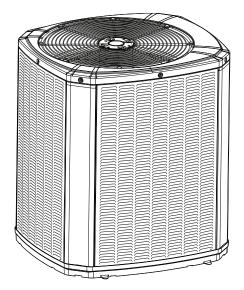


# **Product Data**

# TRANE Link or ComfortLink™ II Variable Speed Heat Pumps

4TWV8X24A1000A 4TWV8X36A1000A 4TWV8X48A1000A 4TWV8X60A1000A



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





## **Mechanical Specification Options**

### General

This unit is designed to operate at outdoor ambient temperatures from  $55^{\circ}$  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 or ComfortLink™ II Heat Pumps

This outdoor unit contains the TRANE Link or ComfortLink™ II Heat Pumps digital communication with 2 wire connection to outdoor and Plug-n-Play set up.

### Casing

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

### **Refrigerant Controls**

Refrigeration system controls include condenser fan, compressor contactor 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™ 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 55°F but will reduce capacity or shut down completely to prevent operation under adverse conditions.

### **Comfort Control**

The 1050/950/850 Control is required and provides Plug-n-Play setup and 3 wire connection.



## **Product Specifications**

### **Heat Pump Models**

OUTDOOR UNIT (a) (b)	4TWV8X24A1000A	4TWV8X36A1000A		
POWER CONNS. — V/PH/HZ (c)	208/230/1/60	208/230/1/60		
MIN. BRCH. CIR. AMPACITY	17.0	25.0		
BR. CIR. PROT. RTG. — MAX. (AMPS)	25	35		
COMPRESSOR	SCROLL	SCROLL		
NO. USED — NO. SPEEDS	1-VARIABLE	1-VARIABLE		
R.L. AMPS (d) — L.R. AMPS	11.5 — 10.2	18.1 - 10.2		
FACTORY INSTALLED				
START COMPONENTS (e)	NA	NA		
INSULATION/SOUND BLANKET	YES	YES		
COMPRESSOR HEAT	YES	YES		
OUTDOOR FAN				
DIA. (IN.) — NO. USED	23 — 1	23 — 1		
TYPE DRIVE — NO. SPEEDS	DIRECT — VARIABLE	DIRECT — VARIABLE		
CFM @ 0.0 IN. W.G. (f)	2680	2850		
NO. MOTORS — HP	1 — 1/3	1 - 1/3		
MOTOR SPEED R.P.M.	200 — 1200	200 — 1200		
VOLTS/PH/HZ	208/230/1/60	208/230/1/60		
F.L. AMPS	2.8	2.8		
OUTDOOR COIL — TYPE	SPINE FIN™	SPINE FIN™		
ROWS — F.P.I.	1 - 24	1 – 24		
FACE AREA (SQ. FT.)	19.77	23.75		
TUBE SIZE (IN.)	3/8	3/8		
REFRIGERANT	R410-A	R410-A		
LBS. — R-410A (O.D. UNIT) <sup>(g)</sup>	7 lb — 6 oz	8 lb – 13 oz		
FACTORY SUPPLIED	YES	YES		
LINE SIZE — IN. O.D. GAS (h)	5/8	3/4		
LINE SIZE — IN. O.D. LIQ. (h)	3/8	3/8		
CHARGING SPECIFICATIONS				
SUBCOOLING	10°	10°		
DIMENSIONS	HXWXD	HXWXD		
CRATED (IN.)	46 X 30.1 X 33	46 X 30.1 X 33		
WEIGHT				
SHIPPING (LBS.)	225	238		
NET (LBS.)	204	217		

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

<sup>(</sup>b) Rated in accordance with AHRI standard 270/275.

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

<sup>(</sup>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.

<sup>(</sup>e) NA means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

 $<sup>^{(</sup>f)}$  Standard Air — Dry Coil — Outdoor

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

 $<sup>^{(</sup>h)} \ \ \text{Max. linear length 150 ft.; Max. lift} - \text{Suction 50 ft.; Max. lift} - \text{Liquid 50 ft.}$ 



### **Product Specifications**

### **Heat Pump Models Cont.**

OUTDOOR UNIT (a) (b)	4TWV8X48A1000A	4TWV8X60A1000A		
POWER CONNS. — V/PH/HZ (c)	208/230/1/60	208/230/1/60		
MIN. BRCH. CIR. AMPACITY	28.0	37.0		
BR. CIR. PROT. RTG. — MAX. (AMPS)	40	50		
COMPRESSOR	SCROLL	SCROLL		
NO. USED — NO. SPEEDS	1-VARIABLE	1-VARIABLE		
R.L. AMPS (d) — L.R. AMPS	20.3 — 12.0	27.5 — 12.0		
FACTORY INSTALLED				
START COMPONENTS (e)	NA	NA		
INSULATION/SOUND BLANKET	YES	YES		
COMPRESSOR HEAT	YES	YES		
OUTDOOR FAN				
DIA. (IN.) — NO. USED	27.5 — 1	27.5 — 1		
TYPE DRIVE — NO. SPEEDS	DIRECT — VARIABLE	DIRECT — VARIABLE		
CFM @ 0.0 IN. W.G. <sup>(f)</sup>	4467	4757		
NO. MOTORS — HP	1 — 1/3	1 – 1/3		
MOTOR SPEED R.P.M.	200 — 1200	200 — 1200		
VOLTS/PH/HZ	208/230/1/60	208/230/1/60		
F.L. AMPS	2.8	2.8		
OUTDOOR COIL — TYPE	SPINE FIN™	SPINE FIN™		
ROWS — F.P.I.	1 – 24	1 – 24		
FACE AREA (SQ. FT.)	27.87	30.80		
TUBE SIZE (IN.)	3/8	3/8		
REFRIGERANT	R410-A	R410-A		
LBS. — R-410A (O.D. UNIT) <sup>(g)</sup>	10 lb — 8 oz	13 lb — 2 oz		
FACTORY SUPPLIED	YES	YES		
LINE SIZE — IN. O.D. GAS <sup>(h)</sup>	7/8	7/8		
LINE SIZE — IN. O.D. LIQ. (h)	3/8	3/8		
CHARGING SPECIFICATIONS				
SUBCOOLING	10°	10°		
DIMENSIONS	HXWXD	HXWXD		
CRATED (IN.)	46.4 x 35.1 x 38.7	51 X 35.1 X 38.7		
WEIGHT				
SHIPPING (LBS.)	268	285		
NET (LBS.)	243	259		

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

<sup>(</sup>b) Rated in accordance with AHRI standard 270/275.

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

<sup>(</sup>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.

<sup>(</sup>e) NA means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

<sup>(</sup>f) Standard Air — Dry Coil — Outdoor

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

<sup>(</sup>h) Max. linear length 150 ft.; Max. lift — Suction 50 ft.; Max. lift — Liquid 50 ft.



## **Sound Data**

			A-Weighted Speed Sound Power Level [dB(A)]	Full Octave Sound Power [dB]							
Model	Mode	Speed		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
4TWV8X24A	Cool	Min	54	70.9	50.3	51.8	52.3	50.4	42.0	37.7	39.9
	Cool	Max	65	76.3	65.2	62.7	64.1	60.5	55.7	49.5	45.0
	Heat	Min	60	69.8	52.9	52.8	57.5	55.2	51.9	47.4	46.5
	Heat	Max	69	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
4TWV8X36A	Cool	Max	70	74.1	69.4	65.9	70.5	65.1	59.4	54.2	49.5
	Heat	Min	60	68.3	52.1	53.9	57.6	55.1	52.9	45.1	47.8
	Heat	Max	74	78.7	70.3	76.3	73.0	68.7	61.1	57.3	53.6
4TWV8X48A	Cool	Min	61	70.6	55.0	55.9	55.8	59.0	49.9	41.1	42.9
	Cool	Max	74	75.7	71.9	73.0	74.2	68.5	63.4	59.1	54.3
	Heat	Min	62	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
4TWV8X60A	Cool	Min	57	69.7	59.5	57.6	55.1	52.0	45.0	41.6	42.3
	Cool	Max	73	83.9	73.7	73.1	71.2	67.9	64.4	58.9	51.8
	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											

Model	Mode	Speed	Sound Pressure in dBA					
			at 3'	at 5'	at 10'	at 15'		
	Cool	Min	47	42	36	33		
	Cool	Max	58	53	47	44		
4TWV8X24A	Heat	Min	53	48	42	39		
-	Heat	Max	62	57	51	48		
	Cool	Min	49	44	38	35		
47140 (0)(264	Cool	Max	63	58	52	49		
4TWV8X36A	Heat	Min	53	48	42	39		
-	Heat	Max	67	62	56	53		
4TWV8X48A	Cool	Min	54	49	43	40		
	Cool	Max	67	62	56	53		
	Heat	Min	55	50	44	41		
	Heat	Max	69	64	58	55		
4TWV8X60A	Cool	Min	50	45	39	36		
	Cool	Max	66	61	55	52		
	Heat	Min	54	49	43	40		
	Heat	Max	67	62	56	53		
NOTE: Rated in a	ccordance wit	h AHRI Standard 2	75		•	•		



# **Optional Accessories:**

Model	4TWV8X24A	4TWV8X36A	4TWV8X48A	4TWV8X60A
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)				

<sup>(</sup>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**

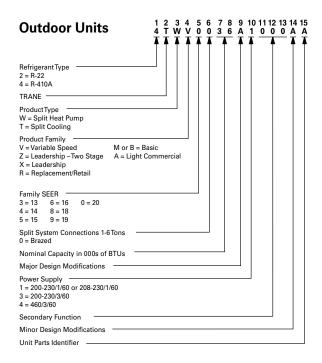
### **AHRI STANDARD 210/240 RATING CONDITIONS**

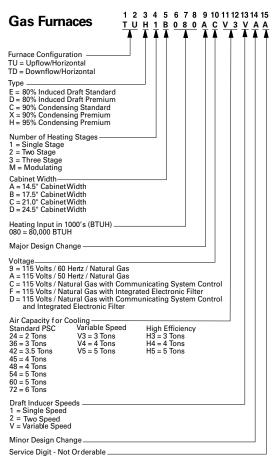
- Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
- High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB entering indoor coil.
- Low Temperature Heating 17°F DB, 15°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- · Rated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

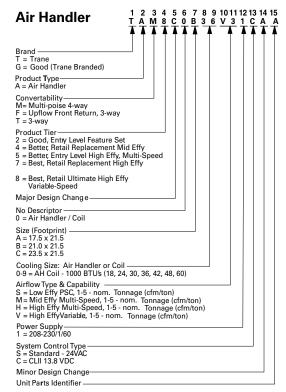
**AHRI STANDARD 270 RATING CONDITIONS** — (Noise rating numbers are determined with the unit in cooling operation) Standard Noise Rating number is at 95°F outdoor air.

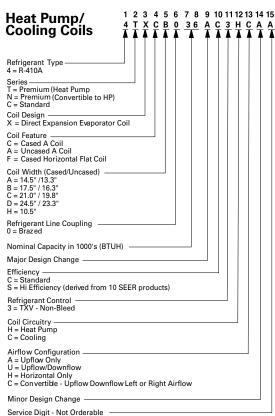


### **Model Nomenclature**



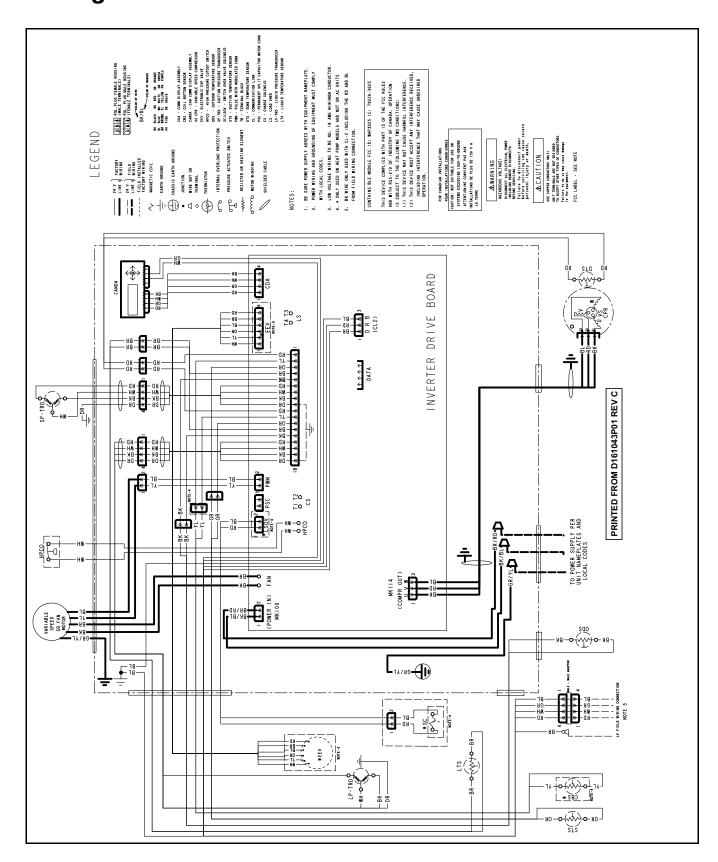








## Wiring





4TWV8X24A1

# 2 Ton Heat Capacity Balance Point Worksheet

Based on 70F Indoor Return Air

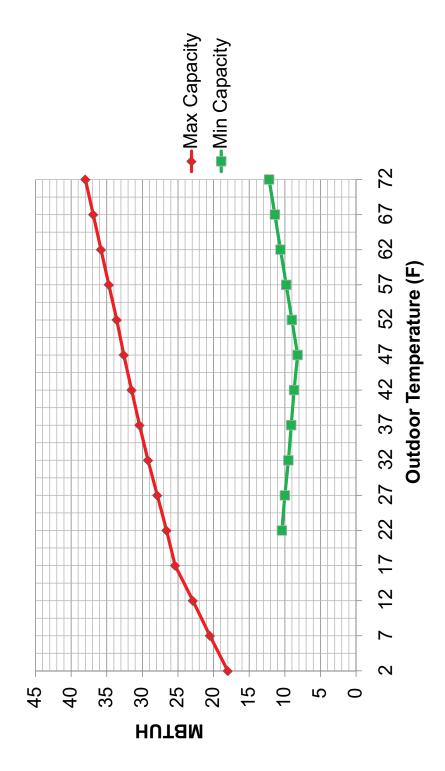




4TWV8X36A1

# 3 Ton Heat Capacity Balance Point Worksheet

Based on 70F Indoor Return Air

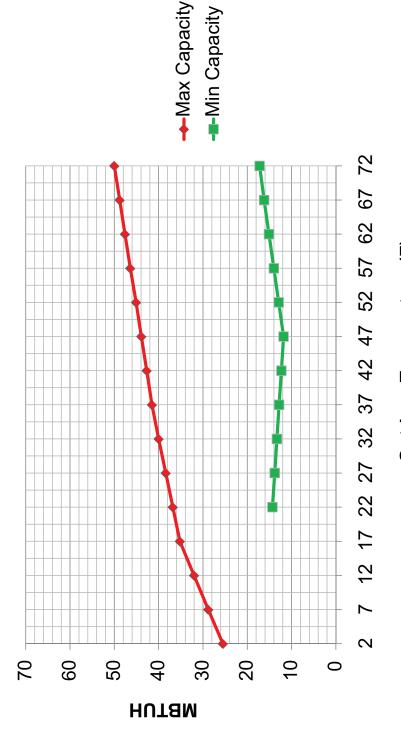




4TWV8X48A1

# 4 Ton Heat Capacity Balance Point Worksheet

Based on 70F Indoor Return Air



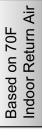
Outdoor Temperature (F)

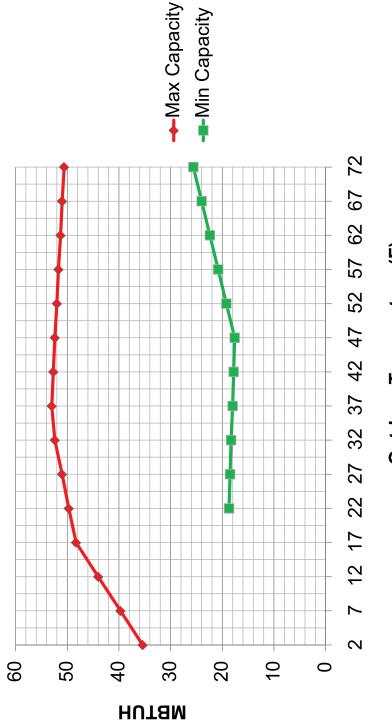


4TWV8X60A1

# 5 Ton Heat Capacity

**Balance Point Worksheet** 





# Outdoor Temperature (F)



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 or 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.

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.