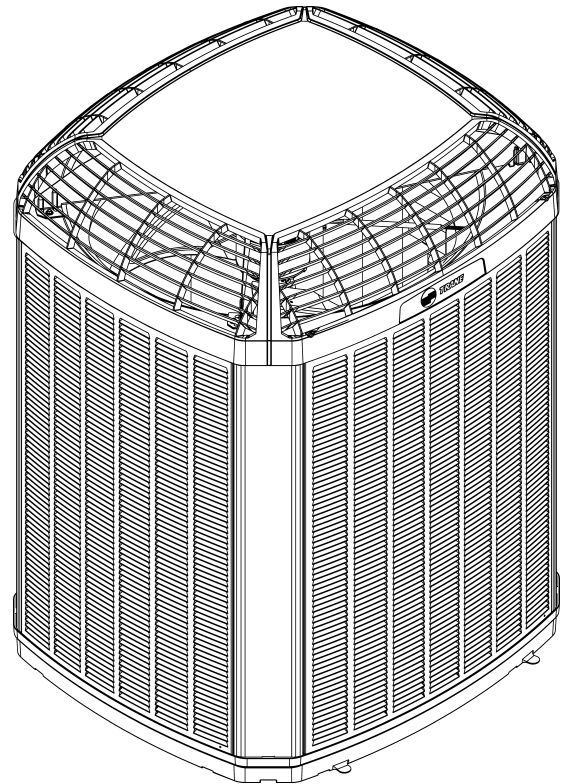




# Product and Submittal Data

## 20 TruComfort™ Variable Speed Cold Climate Heat Pumps with WeatherGuard™

5TCV0X36A1000A  
5TCV0X48A1000A  
5TCV0X60A1000A  
5TCV0X61A1000A (Vapor Injection Model)



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



# Introduction

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## Diagnostics Mobile App



*The Diagnostics Mobile App is available by scanning a QR code above, the one 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.*



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# Model Number Description

## Digit 1 – Refrigerant Type

5 = R-454B

## Digit 2 – Brand

T = Trane

## Digit 3 – System Type

C = Cold Climate Heat Pump

T = AC

W = HP

## Digit 4 – Product Family

A = Light Commercial

B = XB

R = Wire Top Grille

V = VSPD

X = WeatherGuard Top

## Digit 5 – Nominal Rated SEER2

0 = 20 SEER2

3 = 13 SEER2

4 = 14 SEER2

5 = 15 SEER2

6 = 16 SEER2

7 = 17 SEER2

8 = 18 SEER2

## Digit 6 – Field Connection

0 = Brazed

5 = Mechanical

X = Link™

## Digit 7, 8 – Nominal Tonnage

12 = 1.0

18 = 1.5

19 = 1.5

24 = 2.0

25 = 2.0

30 = 2.5

31 = 2.5

36 = 3.0

37 = 3.0

42 = 3.5

43 = 3.5

48 = 4.0

49 = 4.0

60 = 5.0

61 = 5.0

72 = 6.0

## Digit 9 – Major Design Change

A Thru Z Mode = No F, I, 0

## Digit 10 – Power Supply (Voltage/Ph/Hz)

1 = 200-208-230/1/60

3 = 200-230/3/60

4 = 460/3/60

5 = 400/3/60

A = 220-240/1/50

D = 380-415/3/50

## Digit 11, 12, 13 – Other Functions

000 = Typical-no meaning

B = XB

R = Wire Top Grille

V = VSPD

X = WeatherGuard Top

## Digit 14 – Minor Design Change

A Thru Z Mode = No F, I, 0

## Digit 14 – Service Digit - Not Orderable

A Thru Z Mode = No F, I, 0



## General Data

**AHRI standard 210/240 rating conditions:**

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

**AHRI standard 270 rating conditions:**

The noise rating numbers are determined with the unit in cooling operation. Standard Noise Rating number is at 95°F outdoor air.



# Product Specifications

**Table 1. Models 5TCV0X36A, 5TCV0X48A, 5TCV0X60A, and 5TCV0X61A**

Outdoor Unit <sup>(a) (b)</sup>	5TCV0X36A	5TCV0X48A	5TCV0X60A	5TCV0X61A
Power Conns. – V/Ph/Hz <sup>(c)</sup>	230/1/60	230/1/60	230/1/60	230/1/60
Min. Br. Cir. Ampacity	34	43	43	52
Br cir prot RTG - Rec/Max. (Amps)	35/50	50/60	50/60	60/60
<b>Compressor</b>	Scroll	Scroll	Scroll	Scroll-Vapor Injection
No. Used – No. Speeds	1-Variable	1-Variable	1-Variable	1-Variable
MRC	19	28.5	28.5	28.5
<b>Factory Installed</b>				
Start Components <sup>(d)</sup>	—	—	—	—
Sound Blanket	Yes	Yes	Yes	Yes
Compressor Heat	Yes	Yes	Yes	Yes
<b>Outdoor Fan</b>				
Dia. (in.) – No. Used	27.5 – 1	27.5 – 1	27.5 – 1	27.5 – 1
Type Drive – No. Speeds	Direct-Variable	Direct-Variable	Direct-Variable	Direct-Variable
No. Motors – Hp	1 – 3/4	1 – 3/4	1 – 3/4	1 – 3/4
Motor Speed R.P.M.	200 to 1200	200 to 1200	200 to 1200	200 to 1200
Volts/Ph/Hz	245-385/3/60	245-385/3/60	245-385/3/60	245-385/3/60
MOC	3.5	3.5	3.5	3.5
<b>Outdoor Coil – Type</b>	Spine Fin	Spine Fin	Spine Fin	Spine Fin
Rows – F.P.I.	2 – 24	2 – 24	2 – 24	2 – 24
Face Area (Sq. Ft.)	30.8	30.8	30.8	30.8
Tube Size (in.)	3/8	3/8	3/8	3/8
<b>Refrigerant</b>	R-454B	R-454B	R-454B	R-454B
LBS. – R-454B (O.D. Unit) <sup>(e)</sup>	11 LB – 8 OZ	12 LB – 8 OZ	12 LB – 0 OZ	14 LB – 0 OZ
Factory Supplied	Yes	Yes	Yes	Yes
Rated Line Size – in. O.D. Gas <sup>(f)</sup>	5/8	3/4	3/4	3/4
Rated Line Size — in. O.D. Liq.	5/16	5/16	5/16	5/16
<b>Charging Specifications</b>				
Subcooling (°F)	8	10	12	12
<b>Dimensions</b>				
Crated (in.)	55 x 35 x 38	55 x 35 x 38	55 x 35 x 38	55 x 35 x 38
<b>Weight</b>				
Shipping (lbs.)	298	298	298	301
Net (lbs.)	272	272	272	275
<b>Optional Accessories</b>				
Vertical Discharge Air Kit	BAYVDTA004	BAYVDTA004	BAYVDTA004	BAYVDTA004

**Table 1. Models 5TCV0X36A, 5TCV0X48A, 5TCV0X60A, and 5TCV0X61A (continued)**

Outdoor Unit <sup>(a)</sup> <sup>(b)</sup>	5TCV0X36A	5TCV0X48A	5TCV0X60A	5TCV0X61A
Heresite Spray Paint	PAI00309	PAI00309	PAI00309	PAI00309
GFCI Kit	TR04LGFCI35	TR04LGFCI50	TR04LGFCI50	TR04LGFCI60
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg — Base and Cap 4-in. High	BAYLEGS002	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg — 4-in. Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003
SmartCharge™ Tool	BAYCAKT002	BAYCAKT002	BAYCAKT002	BAYCAKT002
Extreme Condition Mounting Kit	BAYECMT023	BAYECMT023	BAYECMT023	BAYECMT023
Refrigerant Lineset <sup>(g)</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 270/275.

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

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

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

<sup>(f)</sup> The maximum length of refrigerant lines from outdoor to indoor varies depending on application. See Installer's Guide Table 4 for allowable applications.

<sup>(g)</sup> 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 Data

Table 2. Models 5TCV0X36A, 5TCV0X48A, 5TCV0X60A, and 5TCV0X61A

Model	Mode	Speed	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
5TCV0X36A	Cool	Min	57	63	54	53	56	53	48	39	41
	Cool	Max	65	72	64	64	63	61	56	49	46
	Heat	Min	58	64	57	57	56	53	48	42	46
	Heat	Max	75	85	75	72	71	73	64	59	55
5TCV0X48A	Cool	Min	58	64	54	56	53	51	53	42	47
	Cool	Max	66	77	69	66	63	61	58	51	47
	Heat	Min	59	67	54	59	59	52	46	40	42
	Heat	Max	75	82	78	75	73	70	65	60	56
5TCV0X60A	Cool	Min	58	64	54	56	53	51	53	42	47
	Cool	Max	68	79	70	67	64	63	61	53	48
	Heat	Min	59	67	54	59	59	52	46	40	42
	Heat	Max	71	78	72	71	67	67	60	54	52
5TCV0X61A	Cool	Min	62	72	57	57	58	56	56	51	49
	Cool	Max	73	84	74	72	71	68	65	61	56
	Heat	Min	62	71	62	61	59	57	55	50	48
	Heat	Max	75	80	73	74	74	70	67	62	57



# Dimensional Data

Figure 2. Dimensional drawing

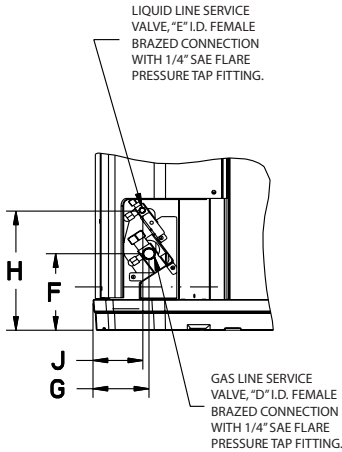
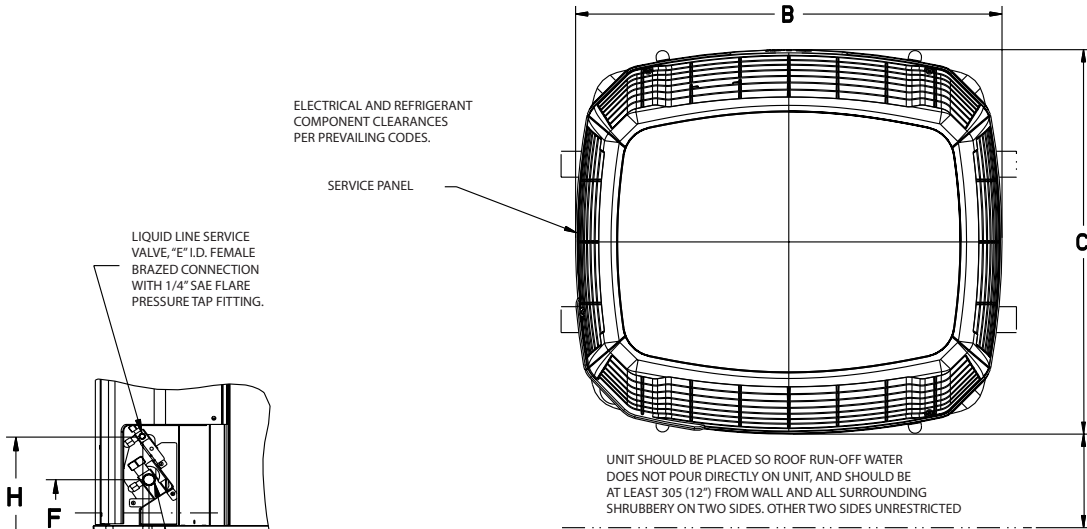


FIG. 2

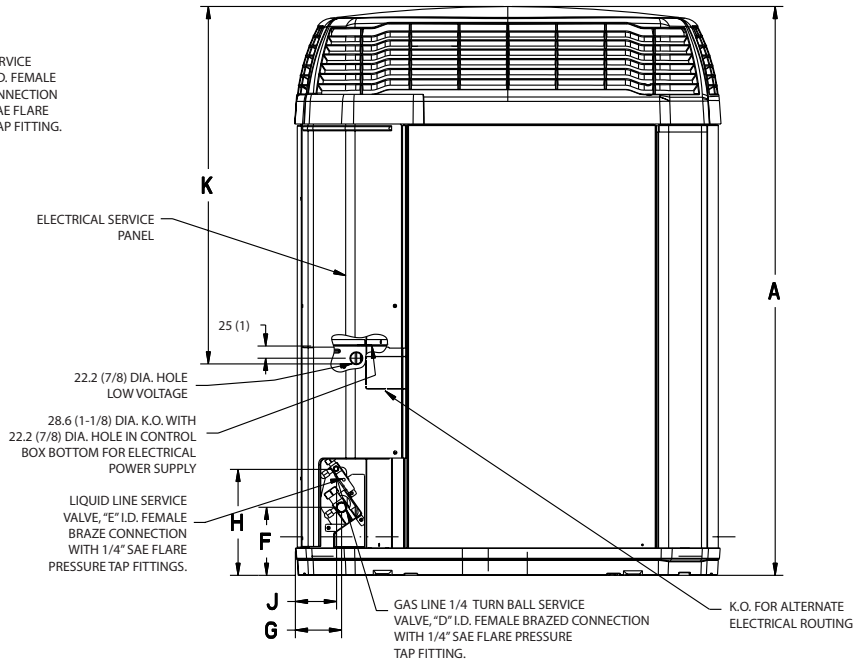


FIG. 1

Table 3. Dimensions (inch)

Model	Base	A	B	C	D	E	F	G	H	J	K
5TCV0X36A	4	1307.0 (51.4)	946 (37-1/4)	870 (34-1/4)	19-3/4	8-5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	994.1 (39.1)
5TCV0X48A	4	1307.0 (51.4)	946 (37-1/4)	870 (34-1/4)	19-3/4	8-5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	994.1 (39.1)
5TCV0X60A	4	1307.0 (51.4)	946 (37-1/4)	870 (34-1/4)	19-3/4	8-5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	994.1 (39.1)
5TCV0X61A	4	1307.0 (51.4)	946 (37-1/4)	870 (34-1/4)	19-3/4	8-5/16	143 (5-5/8)	92 (3-5/8)	210 (8-1/4)	79 (3-1/8)	994.1 (39.1)



# Balance Point Heat Capacity Worksheets

Figure 3. 3-ton heating capacity – model 5TCV0X36A

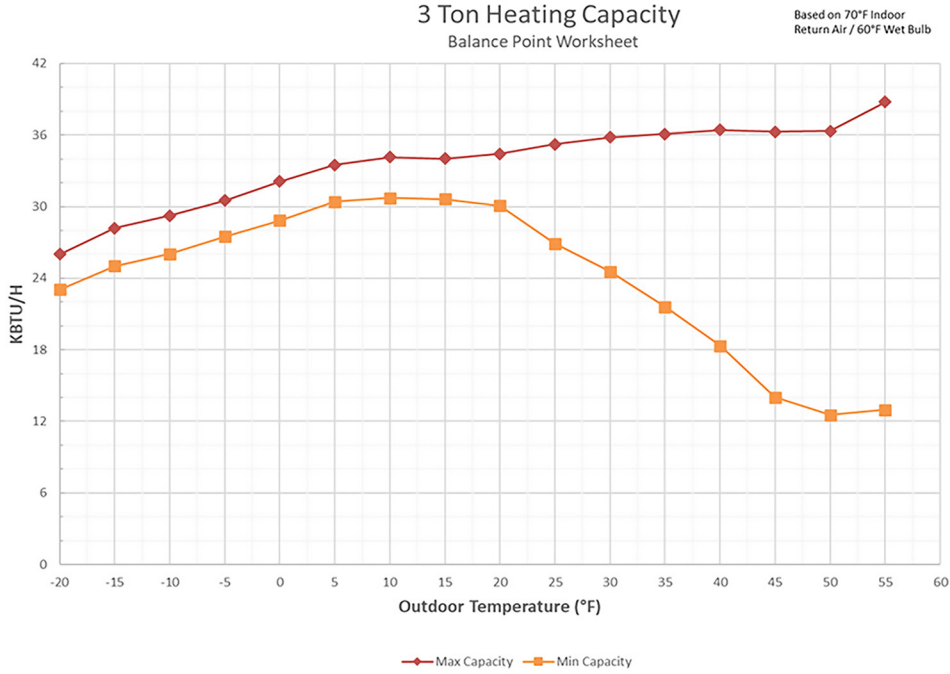
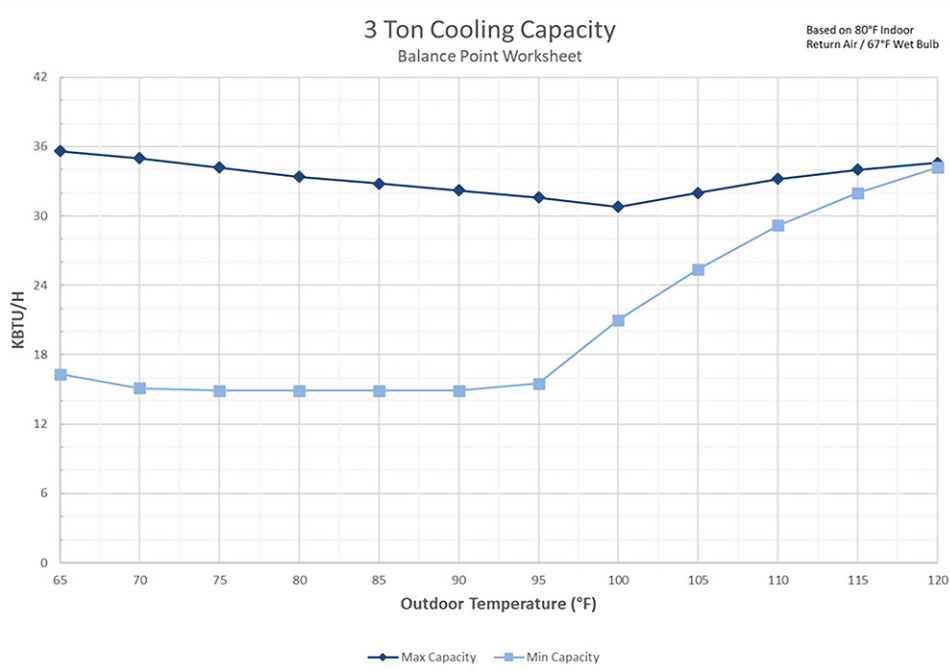


Figure 4. 3-ton cooling capacity – model 5TCV0X36A





# Balance Point Heat Capacity Worksheets

Figure 5. 4-ton heating capacity – model 5TCV0X48A

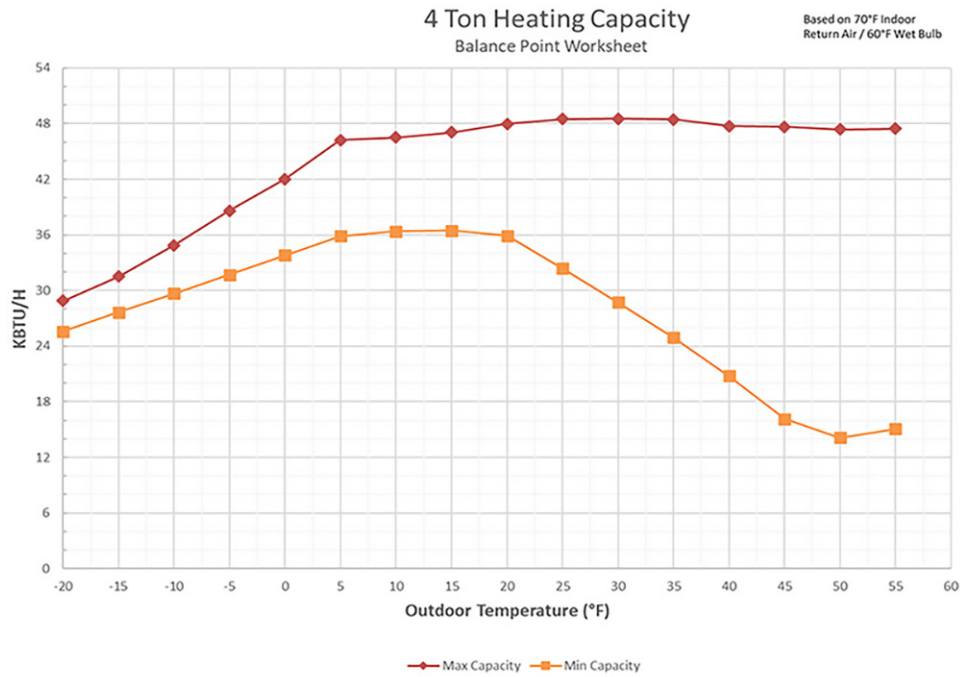


Figure 6. 4-ton cooling capacity – model 5TCV0X48A

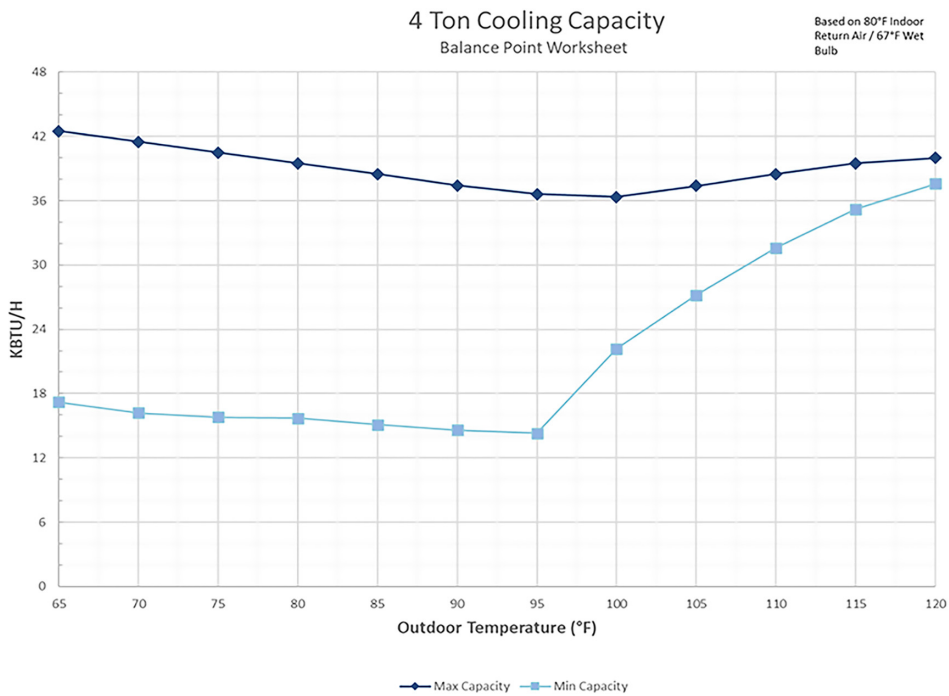


Figure 7. 5-ton cooling capacity – model 5TCV0X60A

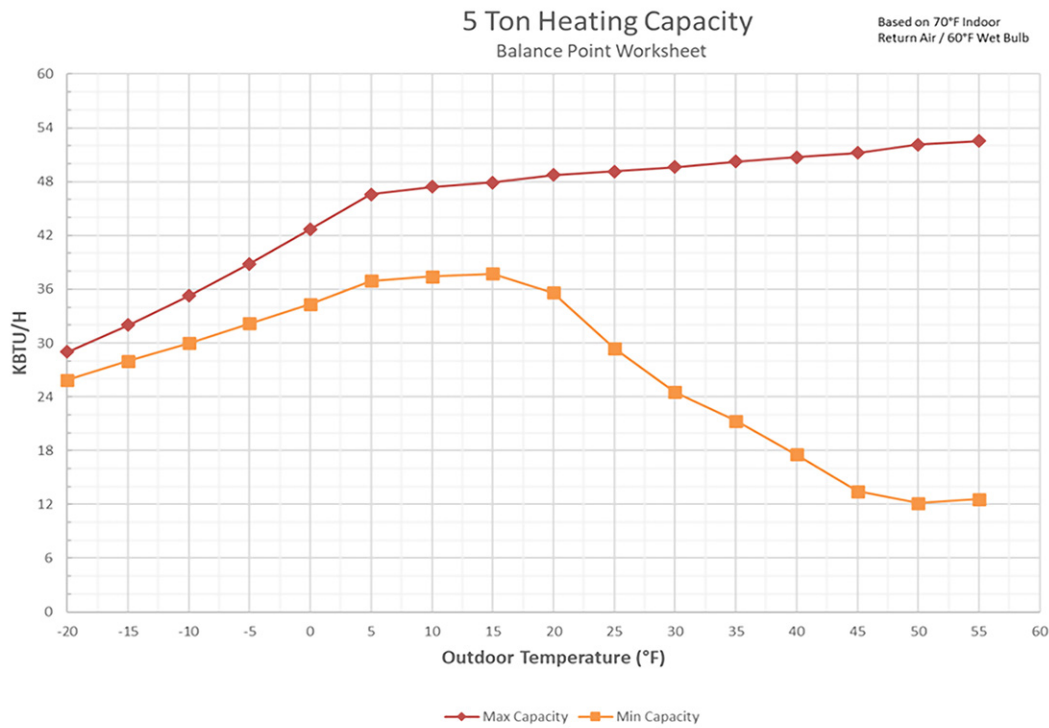
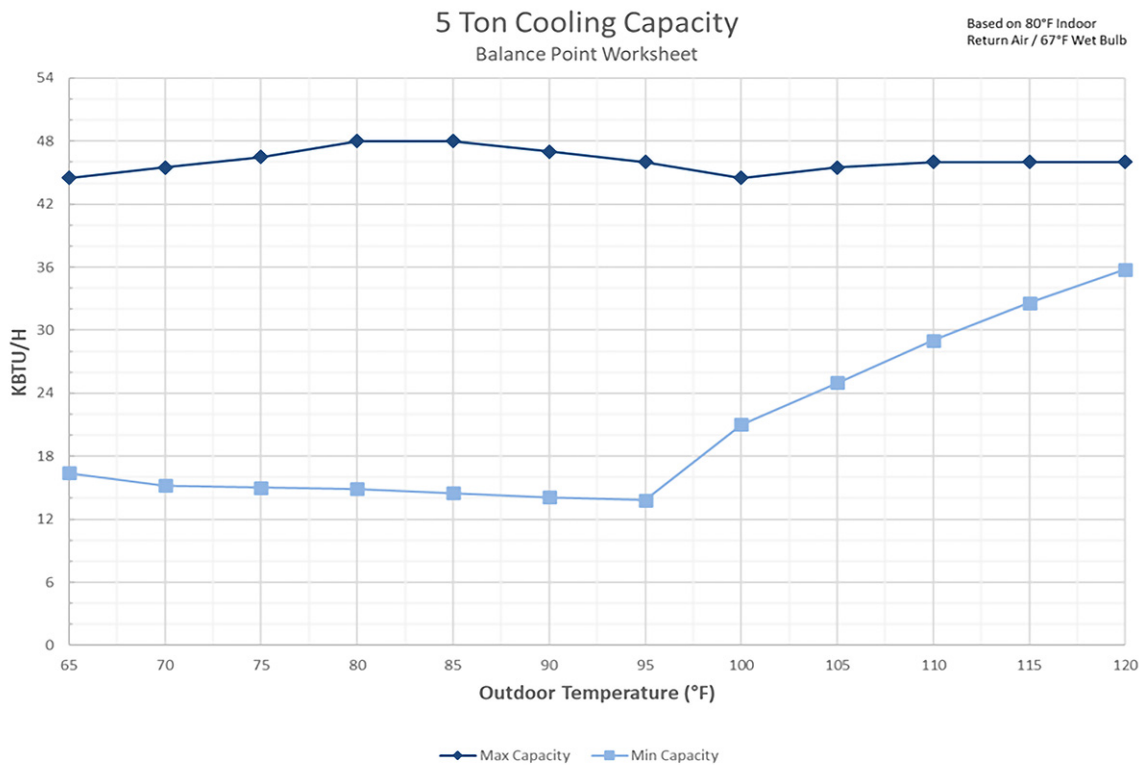


Figure 8. 5-ton cooling capacity – model 5TCV0X60A





# Balance Point Heat Capacity Worksheets

Figure 9. 5-ton heating capacity – model 5TCV0X61A (vapor injection model)

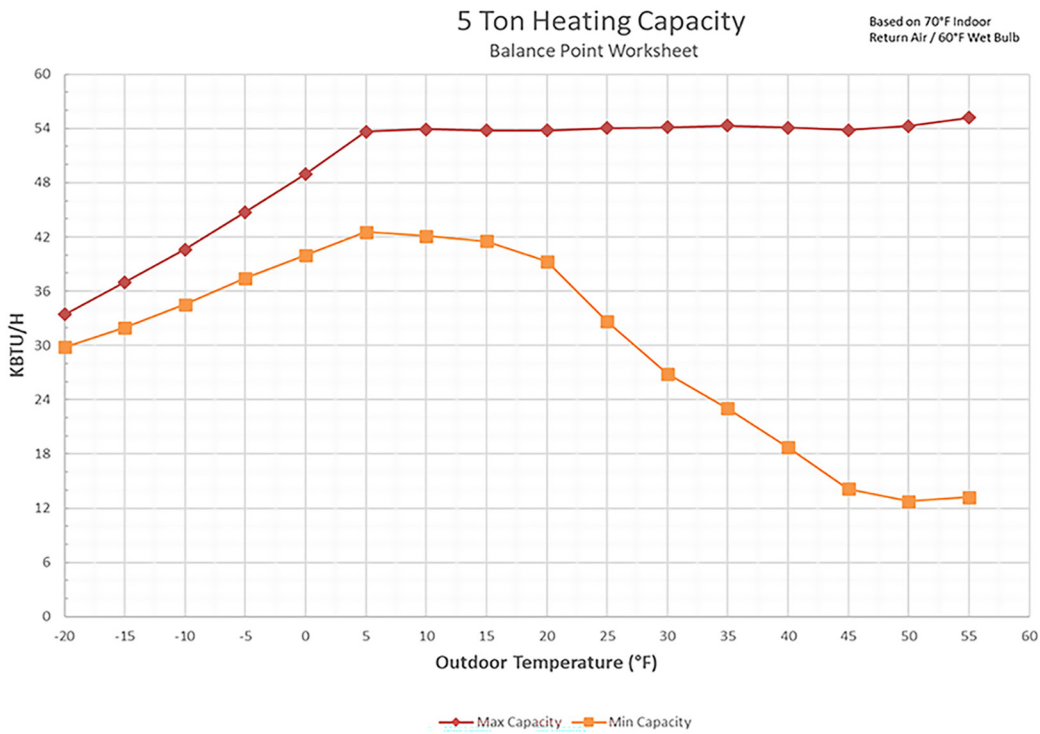
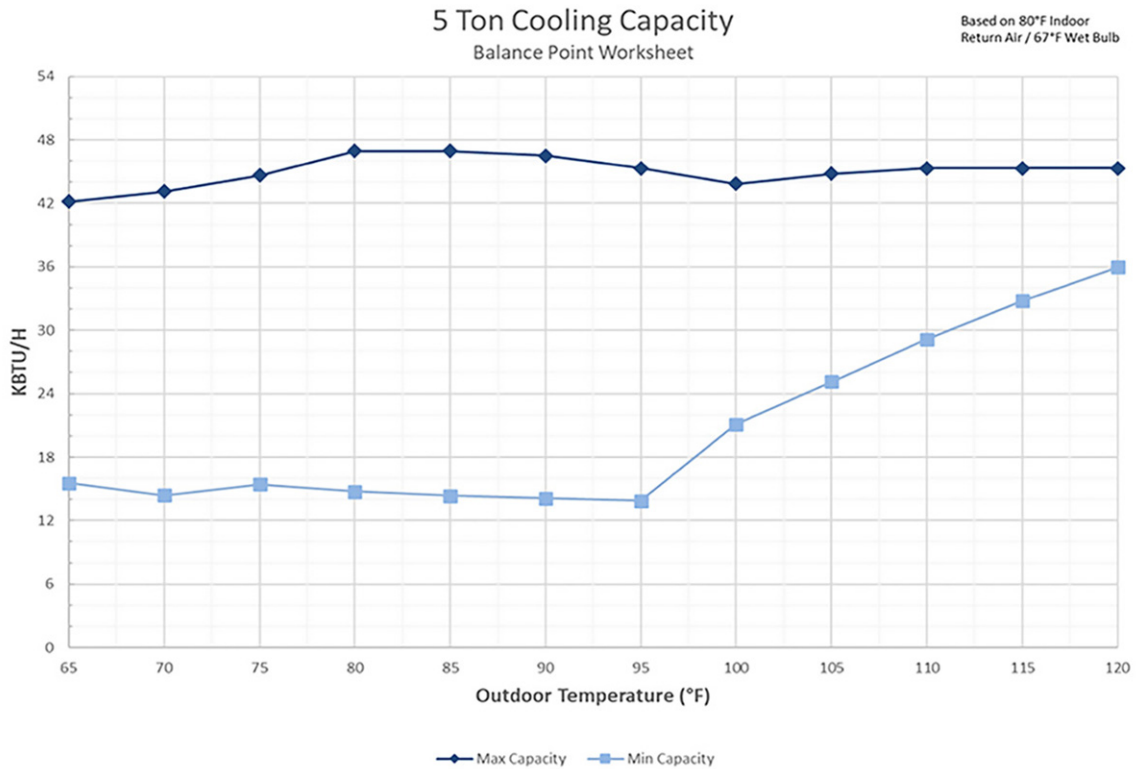


Figure 10. 5-ton cooling capacity – model 5TCV0X61A (vapor injection model)





# Mechanical Specification Options

## **General**

This unit is designed to operate at outdoor ambient temperatures from 55°F to 115°F in cooling. From 0° F to 66°F in heating (heat pumps only). Only AHRI approved indoor matches are approved for use with these models.

## **Trane Link Air Conditioners**

This outdoor unit contains the Trane Link Air Conditioners digital communication with 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.

WeatherGuard™II Top Shields Unit.

## **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 compressor with variable output capacities. Noise enclosure minimizes sound levels. Compressor protections 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.

Seacoast Shield.

## **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**

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



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