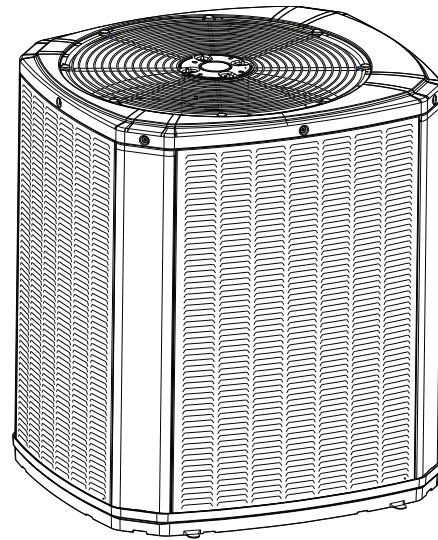




Product Data

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° F to 120° F in cooling. From -10° F to 66° 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) ^(g)	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	H X W X D	H X W X D
CRATED (IN.)	46 X 30.1 X 33	46 X 30.1 X 33
WEIGHT		
SHIPPING (LBS.)	225	238
NET (LBS.)	204	217

^(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

^(g) 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.



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. ^(f)	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) ^(g)	10 lb — 8 oz	13 lb — 2 oz
FACTORY SUPPLIED	YES	YES
LINE SIZE — IN. O.D. GAS ^(h)	7/8	7/8
LINE SIZE — IN. O.D. LIQ. ^(h)	3/8	3/8
CHARGING SPECIFICATIONS		
SUBCOOLING	10°	10°
DIMENSIONS	H X W X D	H X W X D
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

(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

(g) 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

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
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
4TWV8X36A	Cool	Min	56	71.5	51.5	54.7	54.4	52.2	43.1	36.8	38.5
	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'
4TWV8X24A	Cool	Min	47	42	36	33
	Cool	Max	58	53	47	44
	Heat	Min	53	48	42	39
	Heat	Max	62	57	51	48
4TWV8X36A	Cool	Min	49	44	38	35
	Cool	Max	63	58	52	49
	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 accordance with AHRI Standard 275



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)				

^(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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
4 T W V 0 0 3 6 A 1 0 0 0 A A

Refrigerant Type
2 = R-22
4 = R-410A

TRANE

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

Major Design Modifications

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

Air Handler

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
T A M 8 C 0 B 3 6 V 3 1 C A A

Brand
T = Trane
G = Good (Trane Branded)

Product Type
A = Air Handler

Convertability
M = Multi-poise 4-way
F = Upflow Front Return, 3-way
T = 3-way

Product Tier
2 = Good, Entry Level Feature Set
4 = Better, Retail Replacement Mid Effy
5 = Better, Entry Level High Effy, Multi-Speed
7 = Best, Retail Replacement High Effy

8 = Best, Retail Ultimate High Effy Variable-Speed

Major Design Change

No Descriptor
0 = Air Handler / Coil

Size (Footprint)
A = 17.5 x 21.5
B = 21.0 x 21.5
C = 23.5 x 21.5

Cooling Size: Air Handler or Coil
0-9 = AH Coil - 1000 BTUs (18, 24, 30, 36, 42, 48, 60)

Airflow Type & Capability
S = Low Effy PSC, 1-5 - nom. Tonnage (cfm/ton)
M = Mid Effy Multi-Speed, 1-5 - nom. Tonnage (cfm/ton)
H = High Effy Multi-Speed, 1-5 - nom. Tonnage (cfm/ton)
V = High Effy Variable, 1-5 - nom. Tonnage (cfm/ton)

Power Supply
1 = 208-230/1/60

System Control Type
S = Standard - 24VAC
C = CLII 13.8 VDC

Minor Design Change

Unit Parts Identifier

Gas Furnaces

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
T U H 1 B 0 8 0 A C V 3 V A A

Furnace Configuration
TU = Upflow/Horizontal
TD = Downflow/Horizontal

Type
E = 80% Induced Draft Standard
D = 80% Induced Draft Premium
C = 90% Condensing Standard
X = 90% Condensing Premium
H = 95% Condensing Premium

Number of Heating Stages
1 = Single Stage
2 = Two Stage
3 = Three Stage
M = Modulating

Cabinet Width
A = 14.5" CabinetWidth
B = 17.5" CabinetWidth
C = 21.0" CabinetWidth
D = 24.5" CabinetWidth

Heating Input in 1000's (BTUH)
080 = 80,000 BTUH

Major Design Change

Voltage
9 = 115 Volts / 60 Hertz / Natural Gas
A = 115 Volts / 50 Hertz / Natural Gas
C = 115 Volts / Natural Gas with Communicating System Control
F = 115 Volts / Natural Gas with Integrated Electronic Filter
D = 115 Volts / Natural Gas with Communicating System Control and Integrated Electronic Filter

Air Capacity for Cooling
Standard PSC Variable Speed High Efficiency
24 = 2 Tons V3 = 3 Tons H3 = 3 Tons
36 = 3 Tons V4 = 4 Tons H4 = 4 Tons
42 = 3.5 Tons V5 = 5 Tons H5 = 5 Tons
45 = 4 Tons
48 = 4 Tons
54 = 5 Tons
60 = 5 Tons
72 = 6 Tons

Draft Inducer Speeds
1 = Single Speed
2 = Two Speed
V = Variable Speed

Minor Design Change

Service Digit - Not Orderable

Heat Pump/ Cooling Coils

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
4 T X C B 0 3 6 A C 3 H C A A

Refrigerant Type
4 = R-410A

Series
T = Premium (Heat Pump)
N = Premium (Convertible to HP)
C = Standard

Coil Design
X = Direct Expansion Evaporator Coil

Coil Feature
C = Cased A Coil
A = Uncased A Coil
F = Cased Horizontal Flat Coil

Coil Width (Cased/Uncased)
A = 14.5" / 13.3"
B = 17.5" / 16.3"
C = 21.0" / 19.8"
D = 24.5" / 23.3"
H = 10.5"

Refrigerant Line Coupling
0 = Brazed

Nominal Capacity in 1000's (BTUH)

Major Design Change

Efficiency
C = Standard
S = Hi Efficiency (derived from 10 SEER products)

Refrigerant Control
3 = TXV - Non-Blend

Coil Circuitry
H = Heat Pump
C = Cooling

Airflow Configuration
A = Upflow Only
U = Upflow/Downflow
H = Horizontal Only
C = Convertible - Upflow Downflow Left or Right Airflow

Minor Design Change

Service Digit - Not Orderable

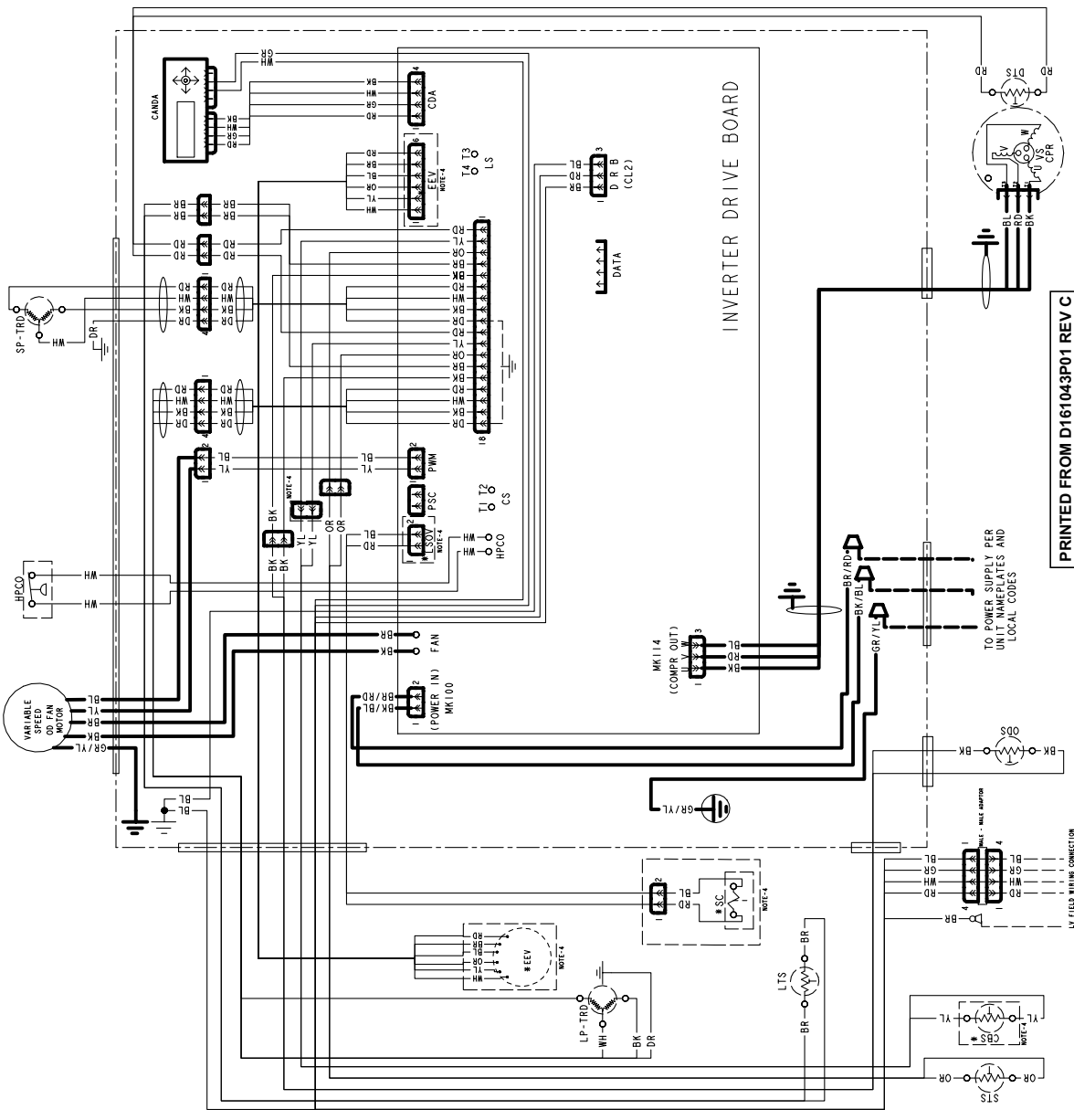
Wiring

LEGEND

- 24 V FACTORY WIRING (MALE TERMINALS)
- 24 V FIELD WIRING (MALE TERMINALS)
- 24 V FACTORY WIRING (FEMALE TERMINALS)
- 24 V FIELD WIRING (FEMALE TERMINALS)
- MAGNETIC COIL
- EARTH GROUND
- CHASSIS EARTH GROUND
- JUNCTION
- WIRE NUT OR TERMINAL
- THERMISTOR
- INTERNAL OVERLOAD PROTECTION
- PRESSURE ACTIVATED SWITCH
- RESISTOR OR HEATING ELEMENT
- MOTOR WINDING
- SHIELDED CABLE
- 24 V - COIL BINARY ASSEMBLY
- CM - COIL COMMON ASSEMBLY
- CAN - CAN COMMON DISPLAY ASSEMBLY
- VC - VARIABLE SPEED COMPRESSOR
- HP - HIGH PRESSURE CUTOUT SWITCH
- OR - OUTDOOR TEMPERATURE SENSOR
- SC - SENSING COIL
- ST - SUCTOR TEMPERATURE SENSOR
- PM - PRESSURE WITH MODULATED COMMON
- CL - COMMUNICATION LINK
- CS - CAPACITOR FOR MOTOR COMMON
- LS - LOAD SHED
- LP - LIQUID PRESSURE TRANSDUCER
- LT - LIQUID TEMPERATURE SENSOR

- NOTES:**
- BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE.
 - POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
 - LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
 - ONLY USED ON HEAT PUMP MODELS AND NOT ON AC UNITS.
 - BR WIRE ONLY USED WITH CL-2, INCLUDING THE RD AND BL FROM FIELD WIRING CONNECTION.
- CONTAINS BLE MODULE FCC ID: W92925 IC: T922A-3925
- THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES AND WITH RSS-210 OF INDUSTRY OF CANADA. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
 (1) THIS DEVICE MUST NOT CAUSE HARMFUL INTERFERENCE.
 (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

- FOR CANADIAN INSTALLATIONS**
- CAUTION:** NOT SUITABLE FOR USE ON SYSTEMS WITH 240 VAC AND INSTANTANEOUS CURRENT RATING EXCEEDING 150 V A
- WARNING**
 HAZARDOUS VOLTAGE!
 SHOCK HAZARD!
 DISCONNECT POWER!
 Failure to disconnect power may result in personal injury or death.
- CAUTION**
 USE CORRECT CONNECTIONS ONLY!
 TO ACCEPT OTHER TYPES OF CONNECTIONS, CONTACT TRANE.
 1-800-477-7977
 FCC LABEL - SEE NOTE



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1X FIELD WIRING CONNECTION
 NOTE 5

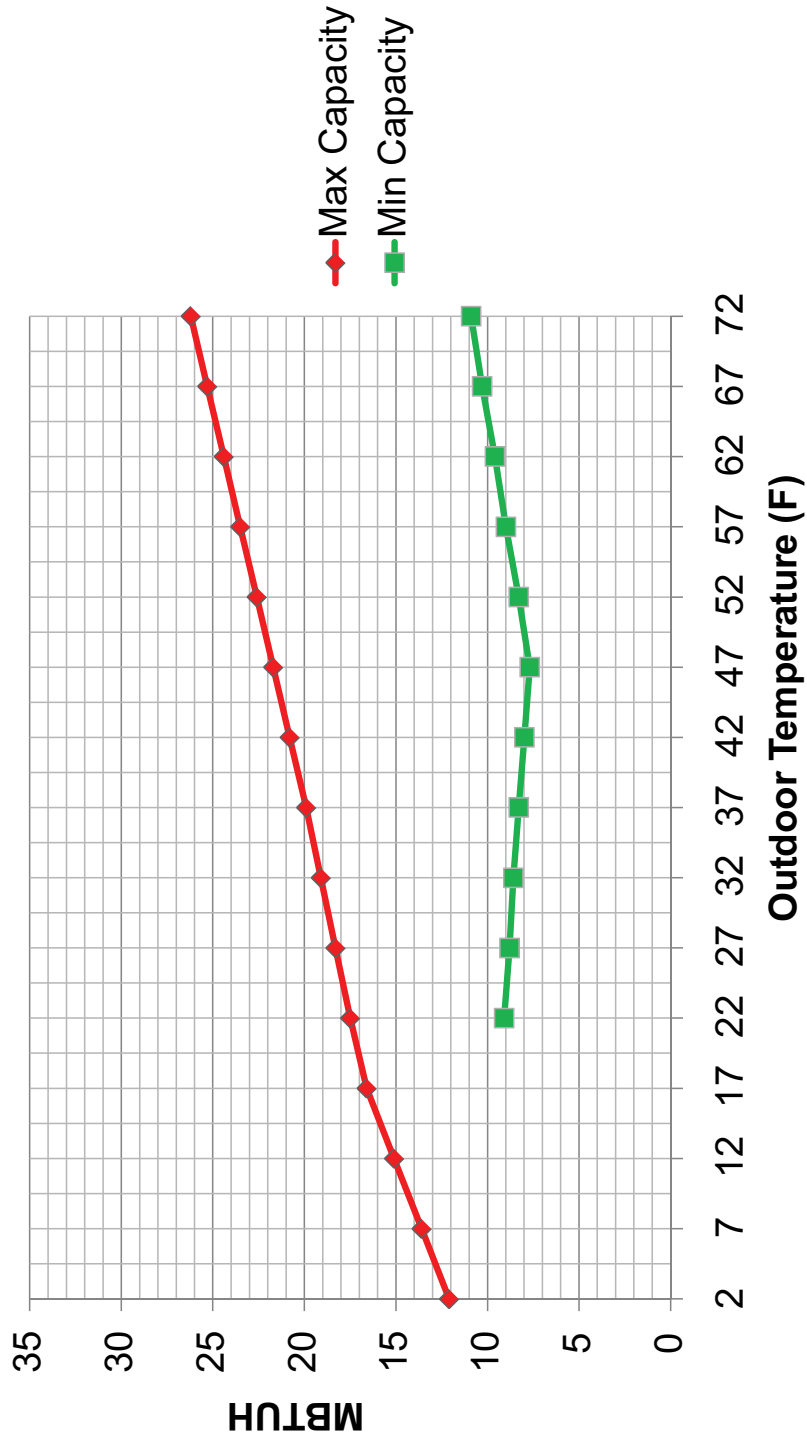


4TWW8X24A1

2 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air

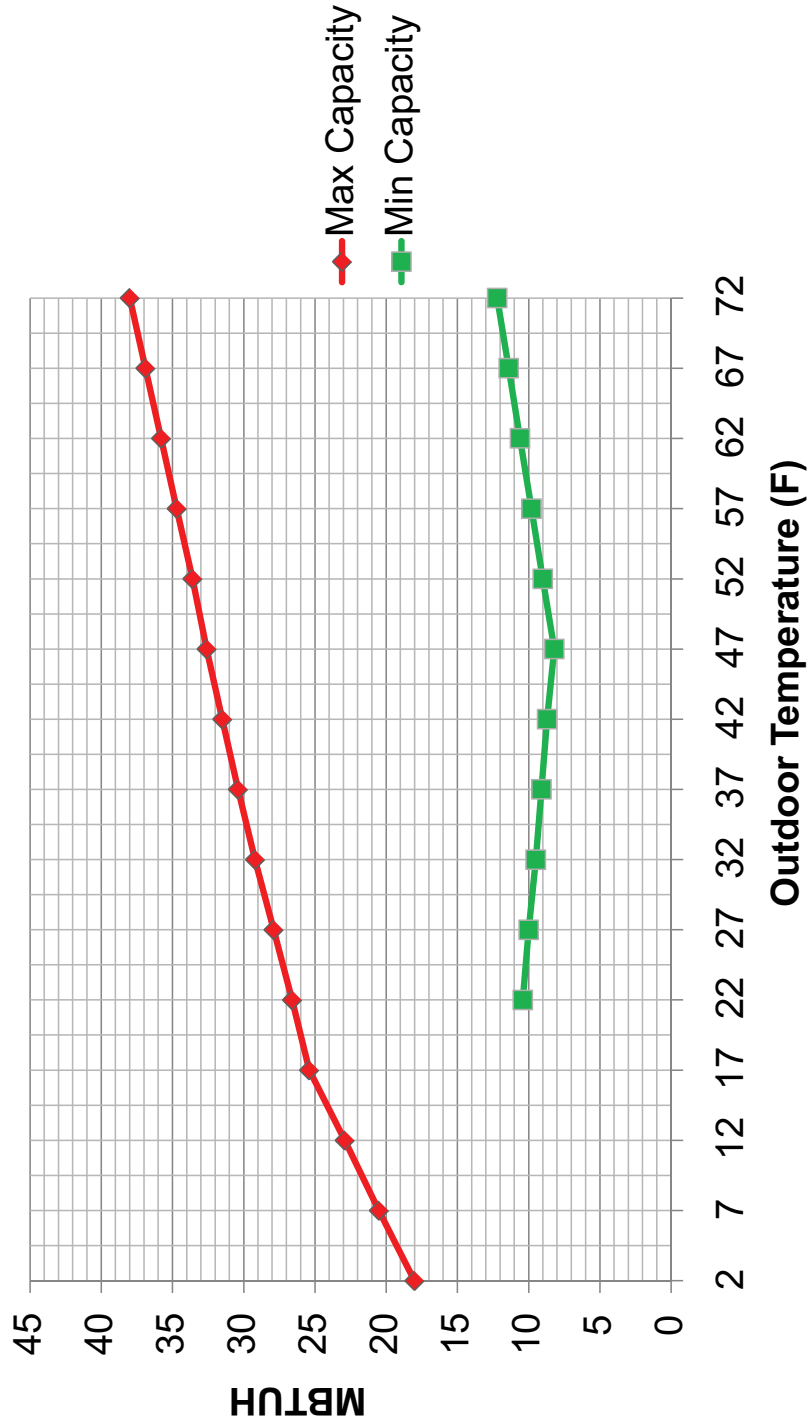


4TWW8X36A1

3 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air

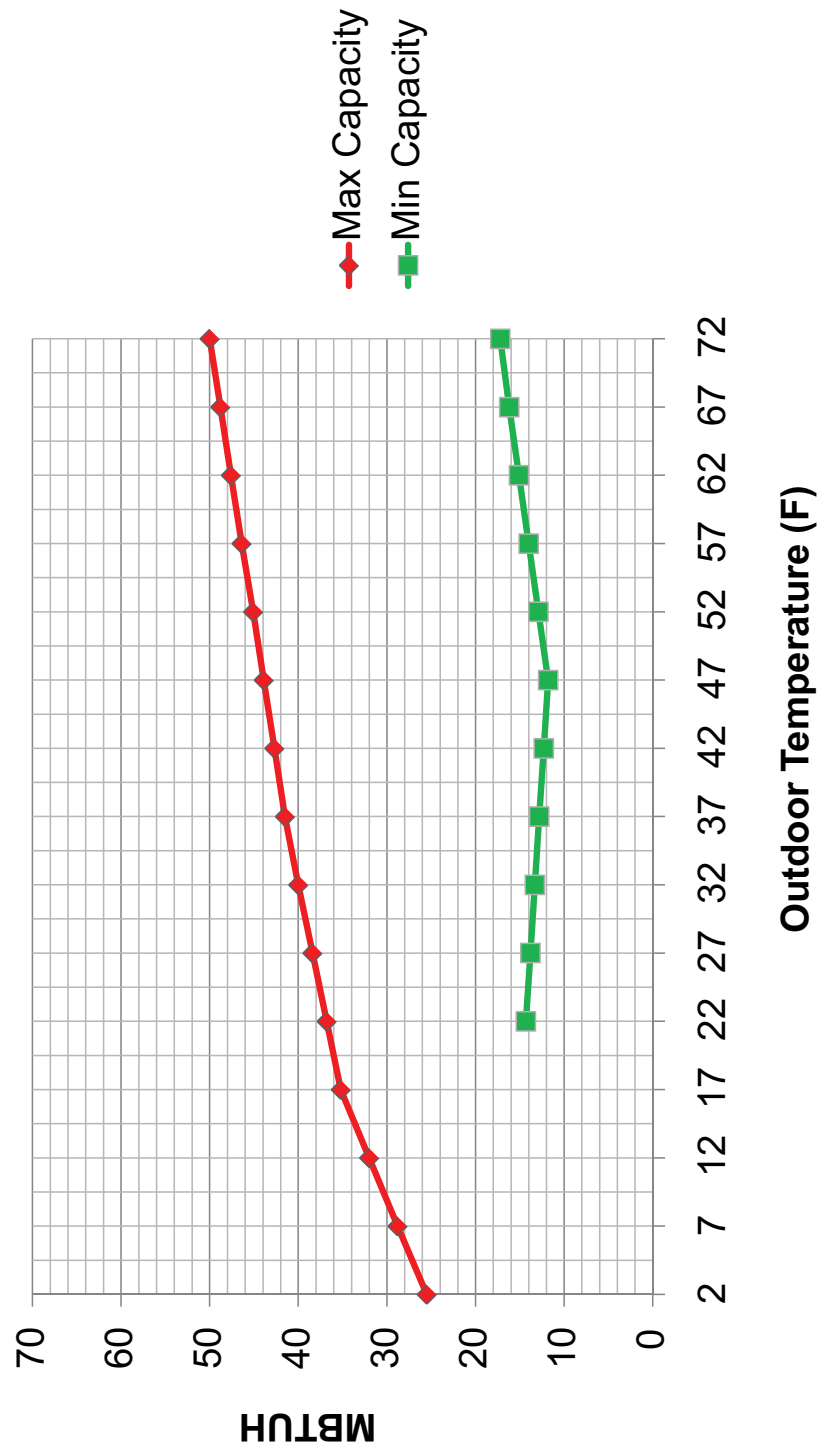


4TWV8X48A1

4 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air

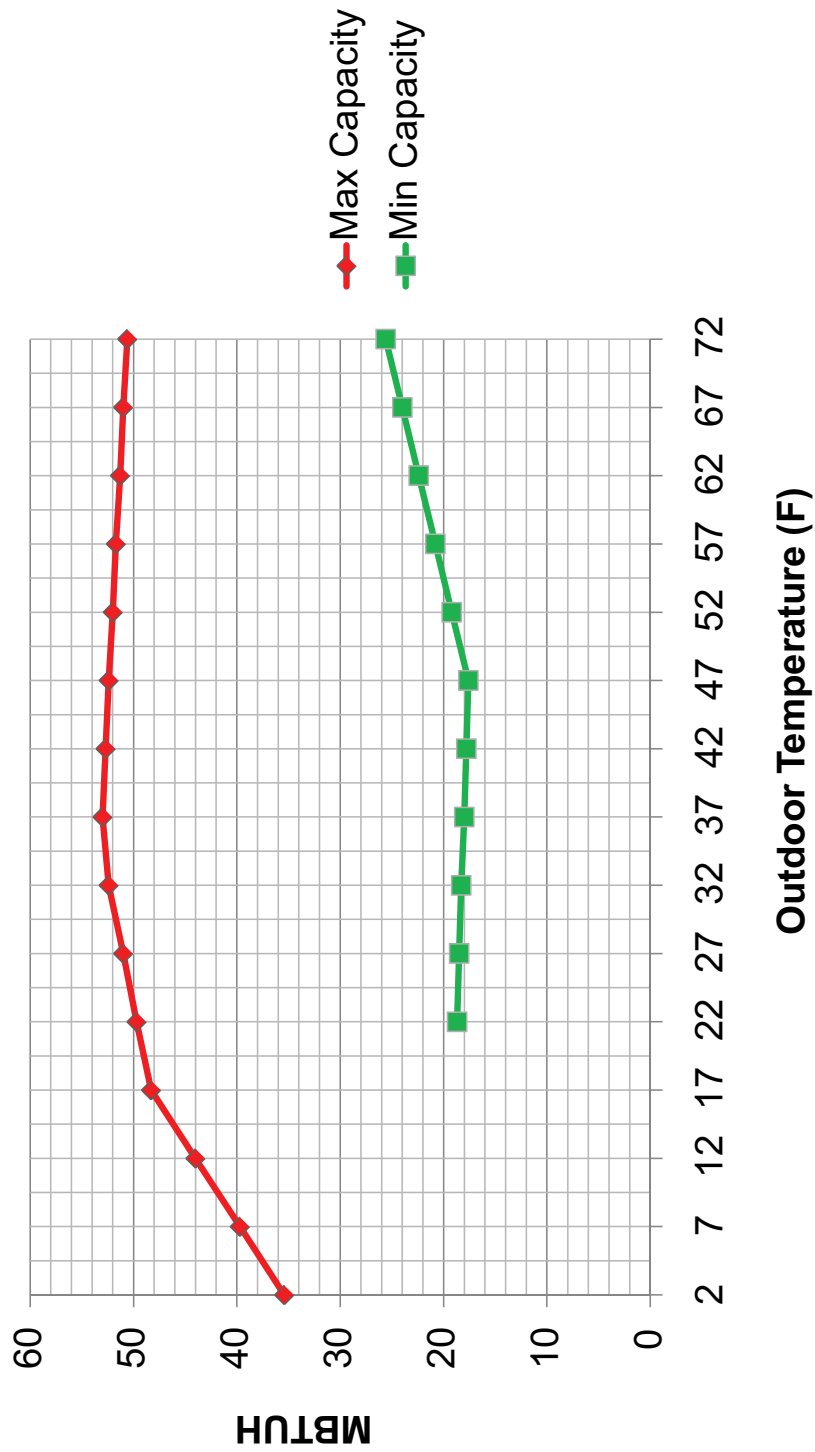


4TWW8X60A1

5 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air





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