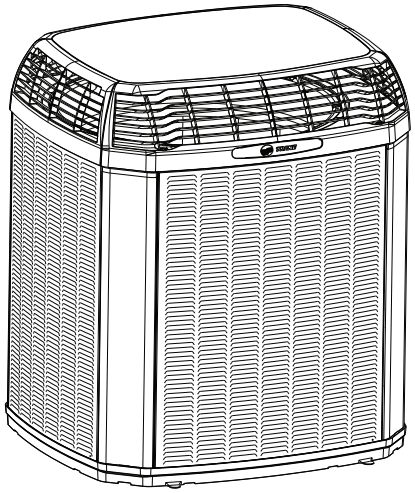
Product Data

TRANE Link or ComfortLink™ II Variable Speed Heat Pumps

4TWV0X24A1000A
4TWV0X36A1000A
4TWV0X48A1000A
4TWV0X60A1000A



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

February 2022

22-1953-1A-EN

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.

WeatherGuard™II Top Shields Unit.

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.

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

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]	4TWV0X24A1000A	4TWV0X36A1000A	4TWV0X48A1000A	4TWV0X60A1000A
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	17.0	26.0	29.0	37.0
BR. CIR. PROT. RTG. — MAX. (AMPS)	25	40	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	18.4 — 10.2	21.1 — 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	27.5 — 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	3670	4517	4757
NO. MOTORS — HP	1 — 1/3	1 — 1/3	1 — 1/3	1 — 1/3
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	2.8	2.8	2.8	2.8
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	27.87	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) [g]	7 lb — 6 oz	9 lb — 15 oz	11 lb — 5 oz	13 lb — 2 oz
FACTORY SUPPLIED	YES	YES	YES	YES
LINE SIZE — IN. O.D. GAS [h]	5/8	3/4	7/8	7/8
LINE SIZE — IN. O.D. LIQ. [h]	3/8	3/8	3/8	3/8
CHARGING SPECIFICATIONS				
SUBCOOLING	10°	9°	10°	10°
DIMENSIONS	H X W X D	H X W X D	H X W X D	H X W X D
CRATED (IN.)	49.9 X 30.1 X 33	51.6 X 35.1 X 38.7	51.6 X 35.1 X 38.7	55.6 X 35.1 X 38.7
WEIGHT				
SHIPPING (LBS.)	236	278	290	300
NET (LBS.)	215	252	264	274

[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
4TWV0X24A	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
4TWV0X36A	Cool	Min	59	69.3	56.0	54.8	54.5	56.8	46.6	38.0	39.0
	Cool	Max	70	79.7	70.2	68.5	66.3	65.8	63.2	56.9	51.4
	Heat	Min	60	69.8	53.0	53.8	53.9	59.5	45.3	39.1	45.3
	Heat	Max	72	84.9	70.6	73.8	70.9	66.5	62.6	58.7	53.9
4TWV0X48A	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
4TWV0X60A	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′
4TWV0X24A	Cool	Min	47	42	36	33
	Cool	Max	58	53	47	44
	Heat	Min	53	48	42	39
	Heat	Max	62	57	51	48
4TWV0X36A	Cool	Min	52	47	41	38
	Cool	Max	63	58	52	49
	Heat	Min	53	48	42	39
	Heat	Max	65	60	54	51
4TWV0X48A	Cool	Min	54	49	43	40
	Cool	Max	67	62	56	53
	Heat	Min	55	50	44	41
	Heat	Max	69	64	58	55
4TWV0X60A	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	4TWV0X24A	4TWV0X36A	4TWV0X48A	4TWV0X60A
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	BAYECMT004	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
Z = Leadership –Two Stage
X = Leadership
R = Replacement/Retail
M or B = Basic
A = Light Commercial

Family SEER
3 = 13
4 = 14
5 = 15
6 = 16
8 = 18
9 = 19
0 = 20

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 BTU's (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" Cabinet Width
B = 17.5" Cabinet Width
C = 21.0" Cabinet Width
D = 24.5" Cabinet Width

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-Bleed

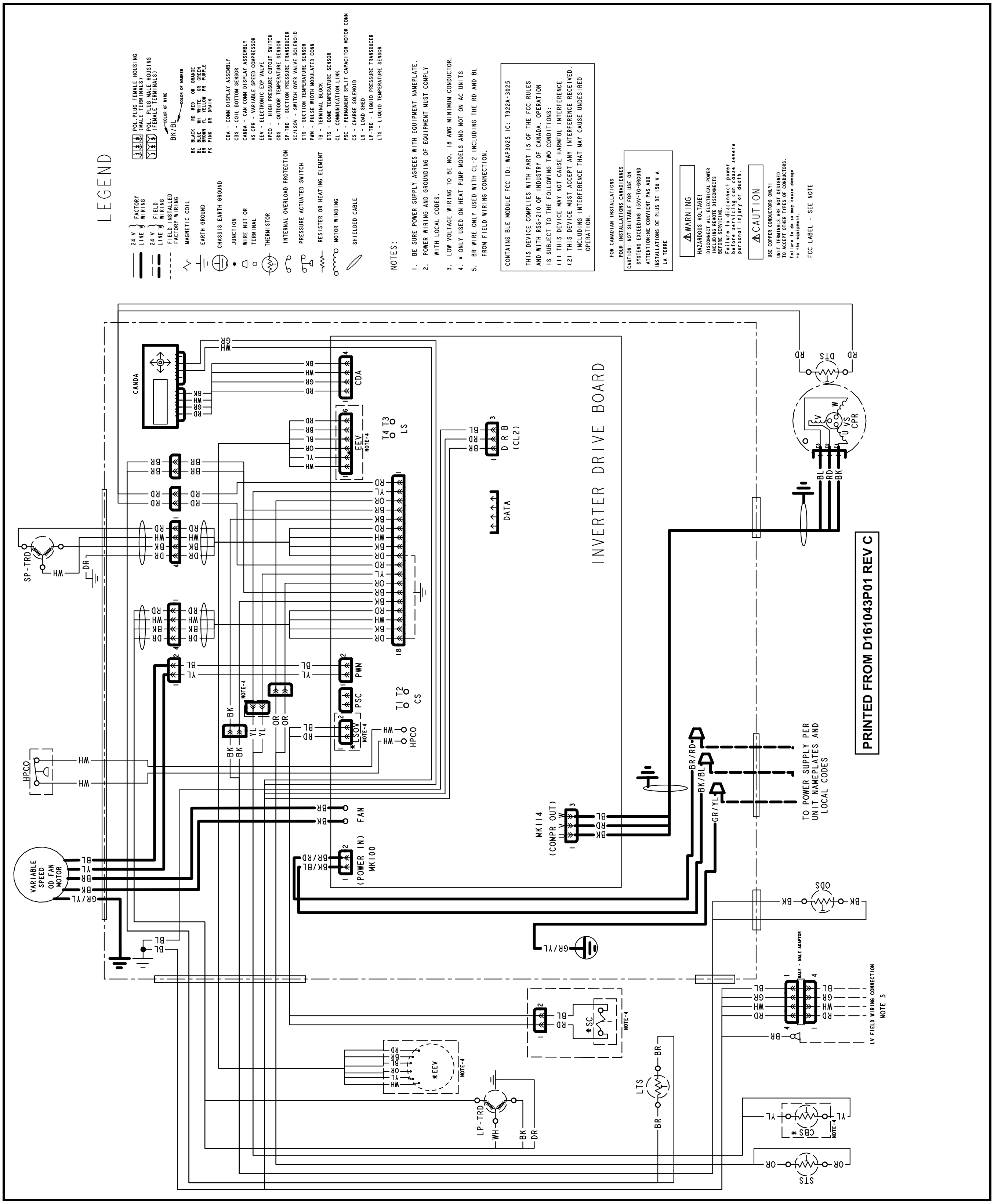
Coil Circuitry
H = Heat Pump
C = Cooling

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

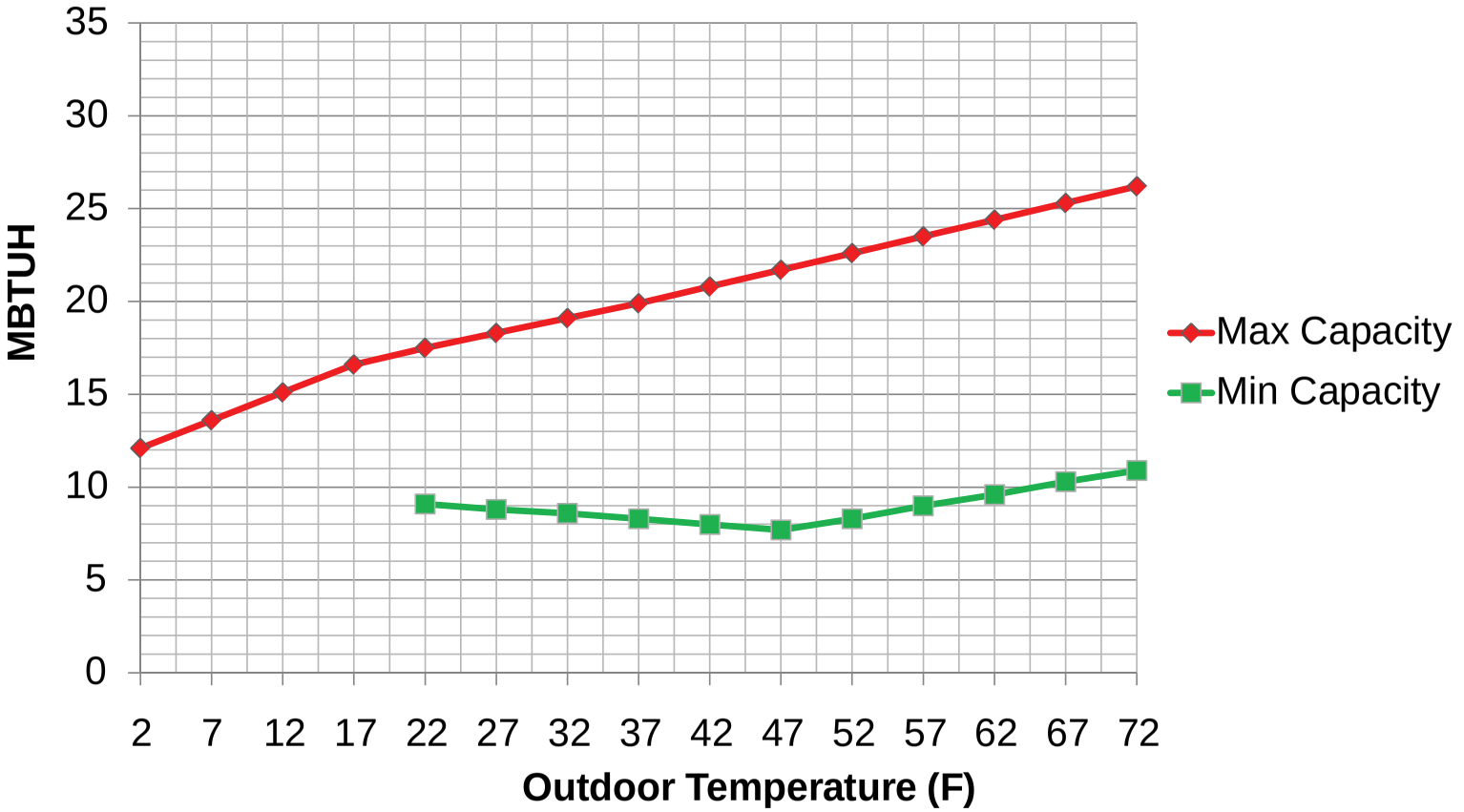

LEGEND
24 V LINE V FACTORY WIRING
24 V LINE V FIELD WIRING
FIELD INSTALLED FACTORY WIRING
MAGNETIC COIL
EARTH GROUND
CHASSIS EARTH GROUND
JUNCTION
WIRE NUT OR TERMINAL
THERMISTOR
INTERNAL OVERLOAD PROTECTION
PRESSURE ACTUATED SWITCH
RESISTER OR HEATING ELEMENT
MOTOR WINDING
SHIELDED CABLE
POL.PLUG FEMALE HOUSING (MALE TERMINALS)
POL. PLUG MALE HOUSING (FEMALE TERMINALS)
BK/BL COLOR OF WIRE COLOR OF MARKER
BK BLACK RD RED OR ORANGE
BL BLUE WH WHITE GR GREEN
BR BROWN YL YELLOW PR PURPLE
PK PINK DR DRAIN
CDA - COMM DISPLAY ASSEMBLY
CBS - COIL BOTTOM SENSOR
CANDA - CAN COMM DISPLAY ASSEMBLY
VS CPR - VARIABLE SPEED COMPRESSOR
EEV - ELECTRONIC EXP VALVE
HPCO - HIGH PRESSURE CUTOUT SWITCH
ODS - OUTDOOR TEMPERATURE SENSOR
SP-TRD - SUCTION PRESSURE TRANSDUCER
SC/LSOV - SWITCH OVER VALVE SOLENOID
STS - SUCTION TEMPERATURE SENSOR
PWM - PULSE WIDTH MODULATED CONN
TB - TERMINAL BLOCK
DTS - DOME TEMPERATURE SENSOR
CL - COMMUNICATION LINK
PSC - PERMANENT SPLIT CAPACITOR MOTOR CONN
CS - CHARGE SOLENOID
LS - LOAD SHED
LP-TRD - LIQUID PRESSURE TRANSDUCER
LTS - LIQUID TEMPERATURE SENSOR
NOTES:
1. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE.
2. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
3. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
4. * ONLY USED ON HEAT PUMP MODELS AND NOT ON AC UNITS
5. BR WIRE ONLY USED WITH CL-2 INCLUDING THE RD AND BL FROM FIELD WIRING CONNECTION.
CONTAINS BLE MODULE FCC ID: WAP3025 IC: 7922A-3025
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 MAY NOT CAUSE HARMFUL INTERFERENCE.
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND
ATTENTION:NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE
WARNING
HAZARDOUS VOLTAGE!
DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.
Failure to disconnect power before servicing can cause severe personal injury or death.
CAUTION
USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
Failure to do so may cause damage to the equipment.
FCC LABEL - SEE NOTE
VARIABLE SPEED OD FAN MOTOR
HPCO
SP-TRD
CANDA
CDA
EEV
PWM
PSC
LSOV
FAN
(POWER IN) MK100
T1 T2 CS
T4 T3 LS
D R B (CL2)
DATA
MK114 (COMPR OUT)
INVERTER DRIVE BOARD
LP-TRD
LTS
STS
CBS
ODS
DTS
VS CPR
TO POWER SUPPLY PER UNIT NAMEPLATES AND LOCAL CODES
MALE - MALE ADAPTOR
LV FIELD WIRING CONNECTION NOTE 5
PRINTED FROM D161043P01 REV C

4TWV0X24A1

2 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air

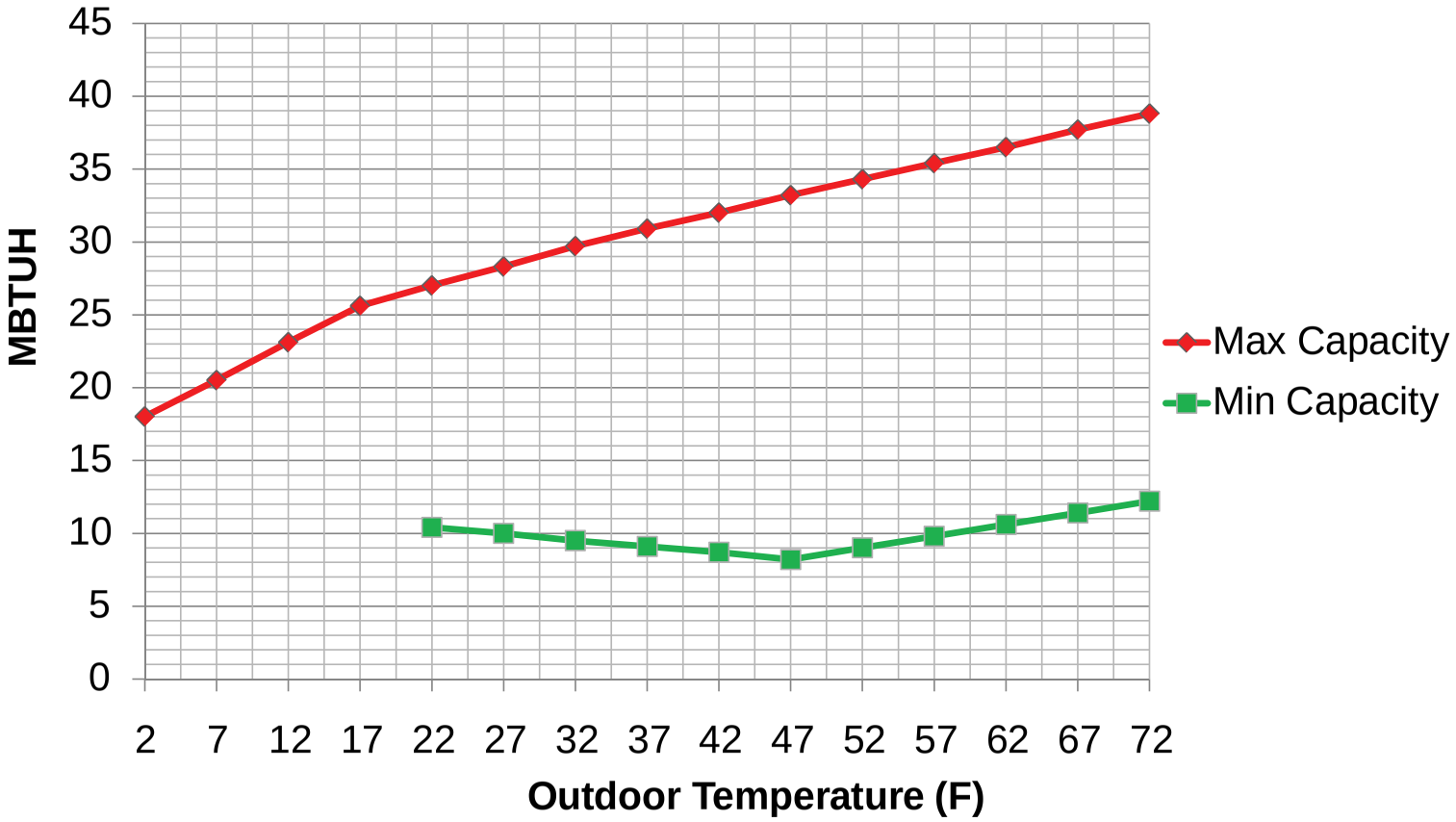


4TWV0X36A1

3 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air

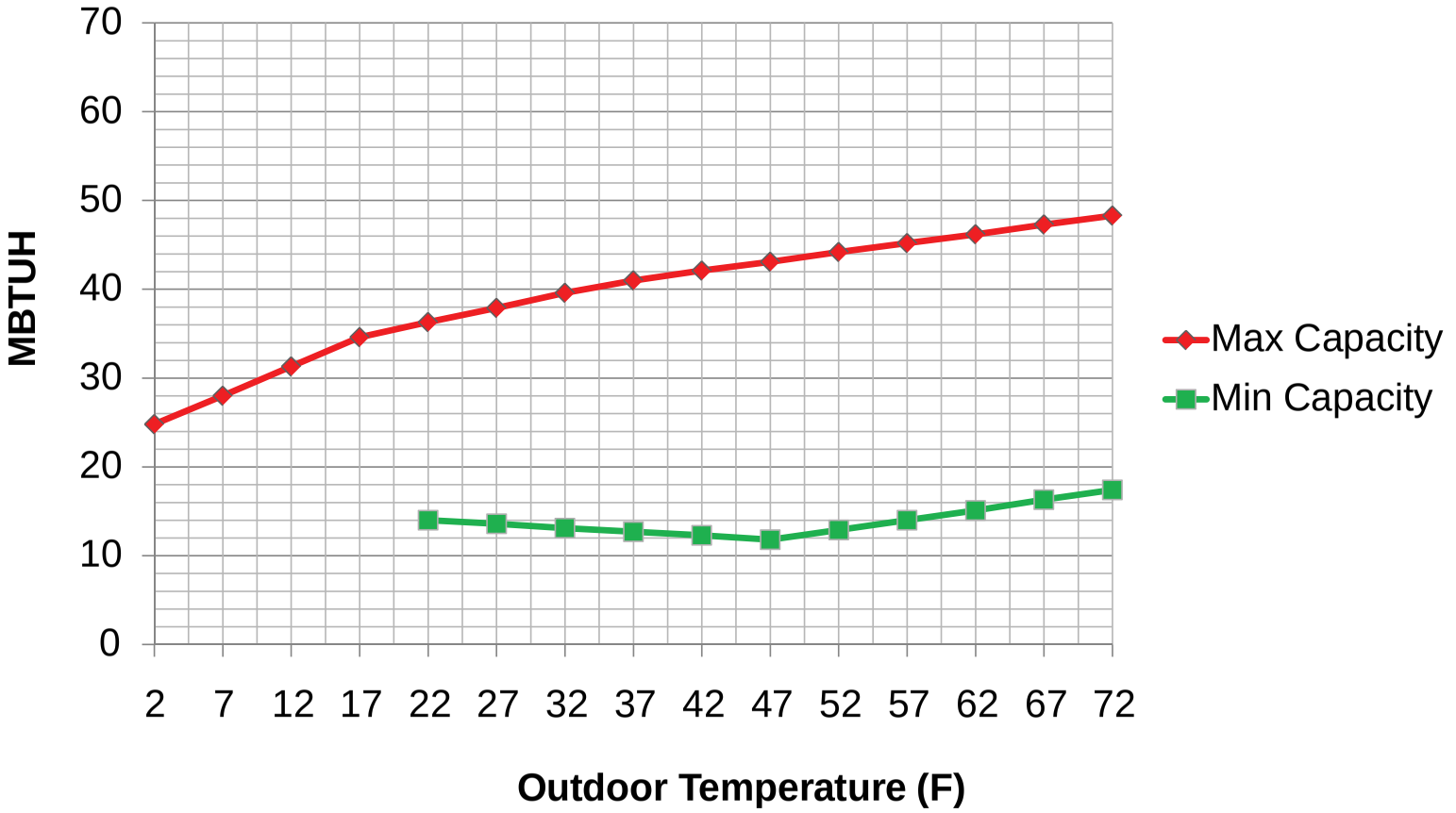


4TWV0X48A1

4 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air

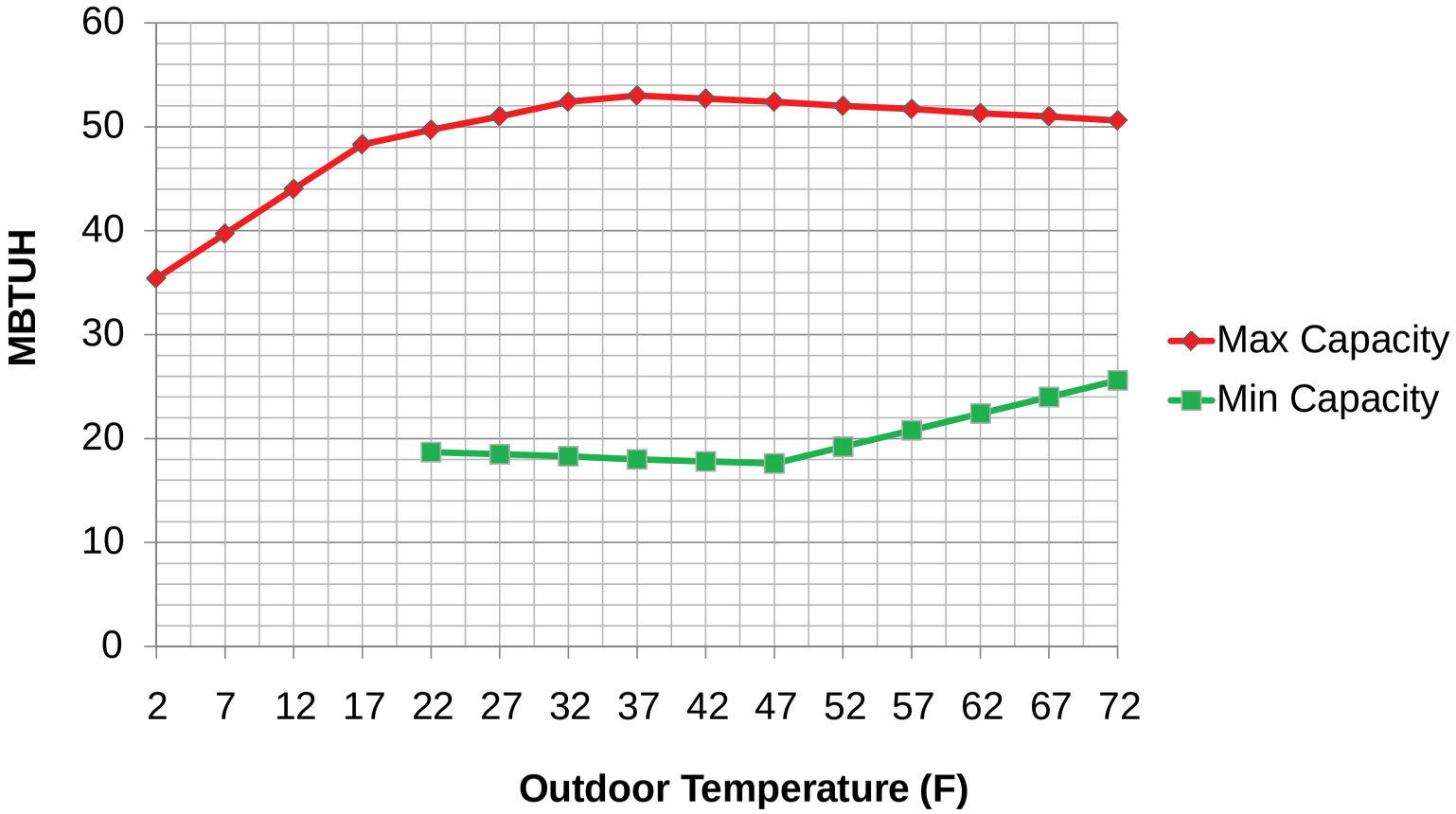


4TWV0X60A1

5 Ton Heat Capacity

Balance Point Worksheet

Based on 70F
Indoor Return Air



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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.

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Supersedes (New)