

# Split System Heat Pump Product & Performance Data

## **XL14i** 2TWX4018-060

1½ – 5 Tons



PUB. NO. 22-1750-05



# Features and Benefits

- Climatuff® compressor
- Efficiency up to 15.25 SEER and 9.6 HSPF
- All aluminum Spine Fin™ coil
- WeatherGuard<sup>™</sup> II top shields unit
- **DuraTuff™** base, fast complete drain, weather proof
- WeatherGuard<sup>™</sup> fasteners
- XL seacoast shield
- Industry leading appearance
- Tarpaulin gray cabinet with anthracite gray top
- Low sound with advanced fan system and compressor sound insulator
- Quick-Sess™ cabinet, service access and refrigerant connections with full coil protection
- Demand defrost control with diagnostics
- · Glossy corrosion resistant finish
- Internal compressor pressure/ temperature protection
- 018,024,060 ship with start kit

- · Liquid line filter-drier
- Comfort "R"™ mode approved
- · Easy single side service
- Multi-use liquid and suction line service valves
- · Easy top & fan removal
- Full length control and service valve cover
- R-22 refrigerant
- · Compressor sump heat
- S.E.E.T. design testing
- 100% line run test
- Low ambient cooling to 55°F as shipped
- Low ambient cooling to 40°F with EDC accessory AY28X084
- Low ambient cooling to 30°F with EDC accessory AY28X084 and TXV
- Extended warranties available



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# General Data

Product Specifications					
Model No. ①	2TWX4018B1	2TWX4024B1	2TWX4030B1	2TWX4036B1	
Electrical Data V/Ph/Hz 2	200/230/1/60	200/230/1/60	208/230/1/60	208/230/1/60	
Min Cir Ampacity	8	11	18	21	
Max Fuse Size (Amps)	15	15	30	35	
Compressor	CLIMATUFF®	<b>CLIMATUFF®</b>	CLIMATUFF <sup>®</sup> - SCROLL	CLIMATUFF® - SCROLL	
RL Amps - LR Amps	6.2 - 45	8.3 - 62	13.5 - 73	16.0 - 88	
Outdoor Fan FL Amps	0.60	0.90	1.30	1.30	
Fan HP	1/15	1/8	1/6	1/6	
Fan Dia (inches)	23	23	27.6	27.6	
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™	
Refrigerant R-22	7/12-LB/OZ	8/00-LB/OZ	7/10-LB/OZ	8/15-LB/OZ	
Line Šize - (in.) O.D. Gas ③	5/8	3/4	3/4	7/8	
Line Size - (in.) O.D. Liquid ③	1/4	5/16	5/16	3/8	
Dimensions H x W x D (Crated)	43.6 x 30.1 x 33	47.6 x 30.1 x 33	45.4 x 35.1 x 38.7	49.4 x 35.1 x 38.7	
Weight - Shipping	249	263	276	295	
Weight - Net	215	228	232	249	
Start Components	YES	YES	NO	NO	
Sound Enclosure	YES	YES	YES	YES	
Compressor Sump Heat	YES	YES	YES	YES	
Optional Accessories: ④					
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A	
Evaporator Defrost Control A/C	AY28X084	AY28X084	AY28X084	AY28X084	
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101	
Snow Leg - Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002	BAYLEGS002	
Snow Leg - 4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003	
Hard Start Kit Scroll			BAYKSKT260	BAYKSKT260	
Extreme Condition Mounting Kit	BAYECMT023	BAYECMT023	BAYECMT004	BAYECMT004	
Refrigerant Lineset 5	TAYREFLN1*	TAYREFLN2*	TAYREFLN2*	TAYREFLN3*	

① Certified in accordance with the Air-Source Unitary Heat Pump Equipment certification program which is based on ARI Standard 210/240.

② Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

Generated in accordance with N.E.V. Only use PACH circuit breakers of uses.
 Standard line lengths - 60'. Standard lift - 60' Suction and Liquid line. For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-0<sup>†</sup>. (†denotes latest revision)
 For accessory description and usage, see page 5.
 \* = 15, 20, 25, 30, 40 and 50 foot lineset available.

### A-weighted Sound Power Level [dB(A)]

	SOUND POWER	A-V	VEIGHTED	FULL OC	TAVE SO	UND POW	ER LEVE	L dB - [dB	(A)]
MODEL	LEVEL [dB(A)]	63	125	250	500	1000	2000	4000	8000
2TWX4018B1	71	47.8	55.0	60.2	64.3	65.0	61.8	56.8	57.5
2TWX4024B1	74	48.3	54.1	58.8	63.5	69.7	66.1	59.0	56.6
2TWX4030B1	73	47.2	59.5	60.6	66.5	67.1	62.3	55.5	51.2
2TWX4036B1	74	47.8	57.7	64.0	66.4	69.3	61.7	55.0	48.8
2TWX4042B1	74	50.2	58.8	64.2	65.7	71.0	63.4	56.0	53.1
2TWX4048B1	74	50.2	58.8	64.2	65.7	71.0	63.4	56.0	53.1
2TWX4060B1	74	50.6	55.2	62.0	69.3	69.3	65.6	64.7	53.7

Note: Tested in accordance with ARI Standard 270.95. (Not listed with ARI)



# General Data

### **Product Specifications**

Model No. ①	2TWX4042B1	2TWX4048B1	2TWX4060B1
Electrical Data V/Ph/Hz 2	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	24	28	3 4
Max Fuse Size (Amps)	4 0	4 5	5 0
Compressor	CLIMATUFF <sup>®</sup> - SCROLL	CLIMATUFF <sup>®</sup> - SCROLL	CLIMATUFF <sup>®</sup> - SCROLL
RL Amps - LR Amps	17.9 - 104	21.2 - 137	25.0 - 148
Outdoor Fan FL Amps	1.30	1.30	2.80
Fan HP	1/6	1/6	1/3
Fan Dia (inches)	27.6	27.6	27.6
Coil	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-22	9/10-LB/OZ	10/05-LB/OZ	11/12-LB/OZ
Line Size - (in.) O.D. Gas ③	7/8	1-1/8	1-1/8
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8
Dimensions H x W x D (Crated)	53.4 x 35.1 x 38.7	53.4 x 35.1 x 38.7	53.4 x 35.1 x 38.7
Weight - Shipping	310	314	339
Weight - Net	261	266	290
Start Components	NO	ΝΟ	YES
Sound Enclosure	YES	YES	YES
Compressor Sump Heat	YES	YES	YES
Optional Accessories: (4)			
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control A/C	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg - Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg - 4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003
Hard Start Kit Scroll	BAYKSKT260	BAYKSKT260	
Extreme Condition Mounting Ki	t BAYECMT004	BAYECMT004	BAYECMT004
Refrigerant Lineset 5	TAYREFLN3*	TAYREFLN4*	TAYREFLN4*

#### Accessory Description and Usage

**Anti-Short Cycle Timer** — Solid state timing device that prevents compressor recycling until 5 minutes have elapsed after satisfying call or power interruptions. Use in area with questionable power delivery, commercial applications, long lineset, etc.

**Evaporator Defrost Control** — SPST Temperature actuated switch that cycles the condenser off as indoor coil reaches freeze-up conditions. Used for low ambient cooling to 30°F with TXV.

**Rubber Isolators** — 5 large rubber donuts to isolate condensing unit from transmitting energy into mounting frame or pad. Use on any application where sound transmission needs to be minimized.

**Hard Start kit** — Start capacitor and relay to assist compressor motor startup. Use in areas with marginal power supply, on long linesets, low ambient conditions, etc.

**Extreme Condition Mount Kit** — Bracket kits to securely mount condensing unit to a frame or pad without removing any panels. Use in areas with high winds, or on commercial roof tops, etc.

### **ARI Standard Capacity Rating Conditions**

ARI STANDARD 210/240 RATING CONDITIONS -

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

**ARI 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 $2 \stackrel{T}{\underset{A}{A}} \stackrel{W}{\underset{A}{A}} \stackrel{X}{\underset{A}{A}} \stackrel{d}{\underset{A}{A}} \stackrel{3}{\underset{A}{A}} \stackrel{3}{\underset{A}{A}} \stackrel{3}{\underset{A}{A}} \stackrel{B}{\underset{A}{A}} \stackrel{1}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{1}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{1}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{1}{\underset{A}{A}} \stackrel{0}{\underset{A}{A}} \stackrel{0}{{A}} \stackrel{0} \stackrel{0}}{{A}} \stackrel{0}{$	A
Refrigerant Type 2 = R-22 4 = R-410A	
Product Type W = Split Heat Pump T = Split Cooling	
Product Family Z = Leadership – Two Stage X = Leadership R = Replacement/Retail B = Basic A = Light Commercial	
Family SEER           0 = 10         3 = 13         6 = 16           1 = 11         4 = 14         8 = 18           2 = 12         5 = 15         9 = 19	
Split System Connections 1-6 Tons           0 = Brazed	
Nominal Capacity in 000s of BTUs	
Major Design Modifications	
Power Supply	
Secondary Function	
Minor Design Modifications	
Unit Parts Identifier	
Gas Furnaces       1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 $T \cup D$ 1 B       0 8 0 A 9 H 3 1 A A $A$ $A$	
T         U         D         1         B         0         8         0         A         9         H         3         1         A         A           Furnace Configuration	
T       U       D       1       B       0       8       0       A       9       H       3       1       A       A         Furnace Configuration	
T       U       D       1       B       0       8       0       A       9       H       3       1       A         Furnace Configuration	
Furnace Configuration         TU D 1 B 0 8 0 A 9 H 3 1 A A         Furnace Configuration         TU = Upflow/Horizontal         TD = DownHow/Horizontal         TD = DownHow/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         2 = Two Stage         3 = Three Stage         2 = Two Stage         3 = Three Stage         2 = Two Cabinet Width         B = 17.5" Cabinet Width         C = 21.0" Cabinet Width	
Furnace Configuration         TU D 1 B 0 8 0 A 9 H 3 1 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         Cabinet Width         B = 17.5° Cabinet Width         D = 24.5° Cabinet Width	
TUDD1B0       P </td <td></td>	
TUD1B00       1       0       0       0       9       H       3       1       A         Furnace Configuration	
Furnace Configuration         TU = Upflow/Horizontal         Tu = Upflow/Horizontal         Tu = Down/How/Horizontal         Type         E = 80% Induced Draft Standard         D = 00% Condensing Standard         X = 90% Condensing Premium         H = 95% Condensing Premium         H = 316.5° Cabinet Width         B = 17.5° Cabinet Width         B = 17.5° Cabinet Width         D = 24.5° Cabinet Width         B = 17.5° tobis / Natural Gas         Major Design Change         9 = 115 Volis / 50 Hertz / Natural Gas         C = 115 Volis / Natural Gas with Communicating System Control         F = 115 Volis / Natural Gas with Communicating System Control and Integrated E	

Service Digit - Not Orderable -
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Heat Pump/     2 T X C B 0 36 A C 3 H C A A       Cooling Coils     A A A A A
Refrigerant Type           2 = R-22           4 = R-410A           Series           T = Premium (Heat Pump or Convertible Coil)           C = Standard (Cooling Only)
Coil Design X = Direct Expansion Evaporator Coil
Coil Feature
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 000's of BTU's
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\_\_ Unit Parts Indentifier\_\_\_

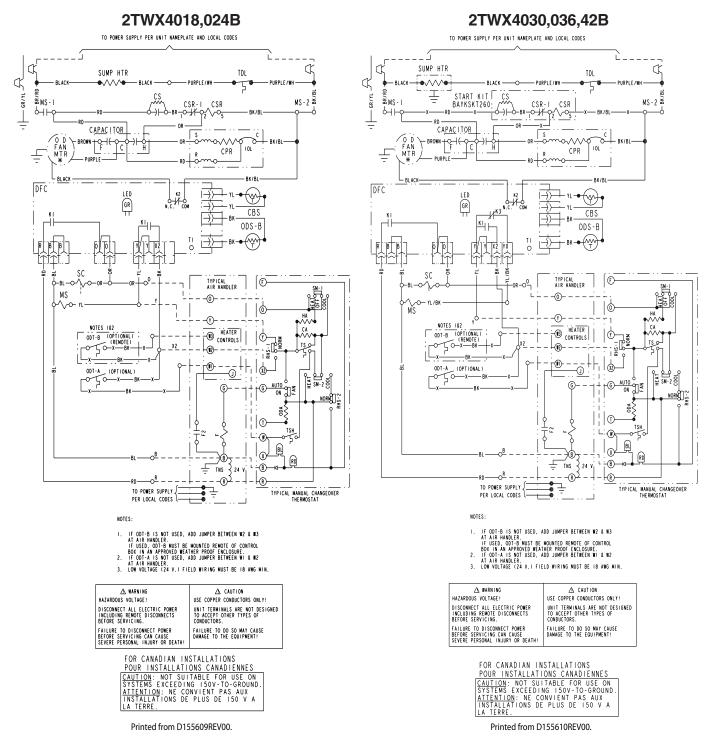
Air Handlers –     4 T E E 3 F 3 6 A 1 0 0 0 A A Residential
Hefrigerant Type           4 = R-410Å           2 = R-22
Application           TE = Fully Convertible           TG = Semi Convertible           TF = Front Return           TV = Vertical
Product Family
Flow Control
Feature Identifier
Nominal Capacity in 000s of BTUs
Major Design Modifications
Power Supply
Electrical Connection 0 = Pig Tails B = Circuit Breaker D = Pull Disconnect
Future Option – Factory Installed Heater Nominal KW Value
Minor Design Modifications
Unit Parts Identifier
NOTE: There will be a phase-in of new model numbers for new air handlers over next 2 years. *Shipped with R-22 FCCV



Electrical Data

### **Schematic Diagrams**

(SEE LEGEND)



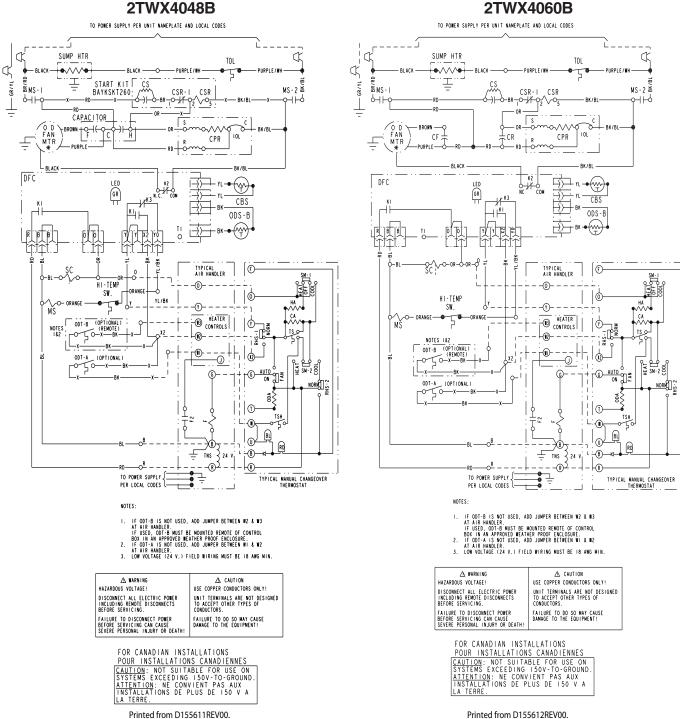


# **Electrical** Data

### Schematic Diagrams

(SEE LEGEND)

### 2TWX4048B





# **Electrical** Data

#### **Schematic Diagrams**

### LEGEND

COLOR OF WIRE BK/BL BLACK WIRE WITH BLUE MARKER						
ΒŔ	/BL B	LACK	WIRE	WITH	BLUE	MARKER
	4COLO	R OF	MARKE	R		
ΒK	BLACK	OR	ORAN	GE	ΥL	YELLOW
ΒL	BLUE	RD	RED		GR	GREEN
ΒR	BROWN	WΗ	WHITE		ΡR	PURPLE

#### **SYMBOLS**

24 V FACTORY WIRING	
- $-$ 24 V. FIELD WIRING	
$  -$ LINE V. $\int$	
GROUND	
JUNCTION WIRE NUT OR CONNECTOR	
-)- CAPACITOR	
THERMISTOR	
O INTERNAL OVERLOAD PROTECTOR	
PRESSURE ACTUATED SWITCH	
F TEMP. ACTUATED SWITCH	
MALE TERM.)	
POL. PLUG MALE HOUSING	
OMOTOR WINDING	
O TERMINAL	
CACOOLING ANTICIPATORLPCOLOWPRESSURECUTOUTSW.CBSCOILBOTTOM SENSORMSCOMPRESSORCOMTACTCFFANCAPACITORODAOUTDOORANTICIPATORCNWIRECONNECTOROFTOUTDOORFANCPRCOMPRESSORODSOUTDOORTHERMOSTATCPRCOMPRESSORODSOUTDOORTHERMOSTATCSSTARTINGCAPACITORRHSRESISTANCEHEATCSCAPACITORSWITCHOVERVALVESOLENOIDFCDEFROSTCONTROLSMSYSTEM"ON-OFF"FINDOORFANRELAYTLDISCHARGEHAHEATINGANTICIPATORTNSTRANSFORMERHPCOHIGHPRESSURECUTOUTSW.TSHEATINGIOLINTERNAL OVERLOADPROTECTORTSHHEATINGTHERMOSTATROFTSHUNTRESISTORSWITCHSWITCH	OR D T
0	



2TWX4060B

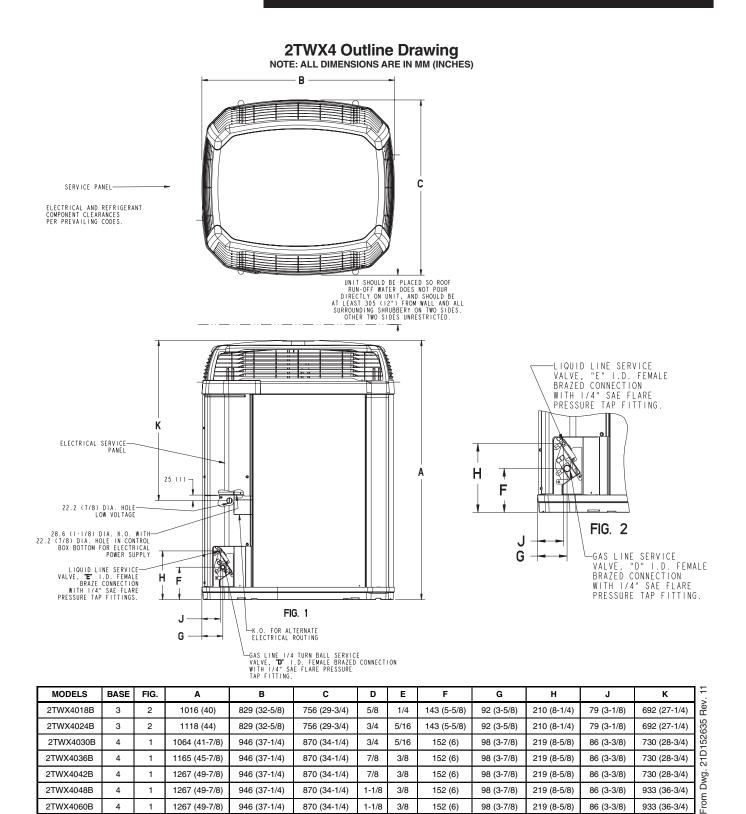
4

1

1267 (49-7/8)

946 (37-1/4)

# **Dimensions**



933 (36-3/4)

1-1/8

3/8

152 (6)

98 (3-7/8)

219 (8-5/8)

86 (3-3/8)

870 (34-1/4)



# Mechanical Specification Options

#### General

The 2TWX4 shall be fully charged from the factory for matched indoor section and up to 15 feet of piping. This unit must be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be matched with a wide selection of air handlers and furnace coils that are ARI certified. The unit is certified to UL 1995. Exterior must be designed for outdoor application.

#### Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint. Corrosion and weatherproof CMBP-G30 DuraTuff<sup>™</sup> base.

#### **Refrigerant Controls**

Refrigeration system controls include condenser fan and compressor contactor. High and low pressure controls are inherent to the compressor. Another standard feature is the liquid line dryer.

#### Compressor

The Climatuff<sup>®</sup> compressor features internal over temperature and pressure protector, total dipped hermetic motor and thermostatically controlled sump heater. Other features include: roto lock suction and discharge refrigeration connections, centrifugal oil pump, and low vibration and noise.

#### **Condenser Coil**

The Spine Fin<sup>™</sup> coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This

coil is 3/8 inch O.D. seamless aluminum glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch. The 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 unit has a cooling capability to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

#### Accessories

**Thermostats** — Heating/Cooling (manual and automatic changeover). Sub-base to match thermostat and locking thermostat cover.

**Evaporator Defrost Control** — See Low Ambient Cooling.

**Outdoor Thermostat** — Supplemental heat outdoor ambient lockout from  $46 \text{ to } -10^{\circ}\text{F}.$ 







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**Trane** has a policy of continuous product and product data improvement **and** it reserves the right to change design and specifications without notice.

04/09