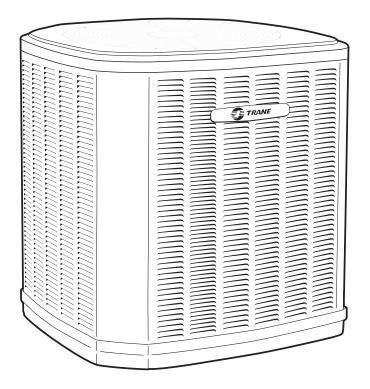


Split System Heat Pump Product Data

XR16 4TWR6

2, 3, 4 & 5 Tons



PUB. NO. 22-1865-03



Features and Benefits

- CLIMATUFF[™] 2-stage scroll compressor
- Efficiency up to 18.0 SEER and 9.5 HSPF
- All Aluminum **SPINE FIN**[™] coil
- **DURATUFF**[™] weather proof and rust proof base
- COMFORT "R"™ mode approved for better comfort indoors
- QUICK-SESS[™] cabinet, service access and refrigerant connections with full coil protection
- WEATHERGUARD[™] fasteners
- Glossy corrosion resistant finish tarpaulin gray cabinet with anthracite gray top
- Internal compressor high/low pressure & temperature protection

- Liquid line filter/drier
- Low sound with advanced PSC fan motor
- Service valve cover
- R-410A refrigerant
- From 70 to 100% capacity modulation
- 100% run test in the factory
- Low ambient cooling to 55° as shipped
- Extended warranties available



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General Data

Product Specifications

		•		
Model No. 1	4TWR6024A1000B	4TWR6036A1000B	4TWR6048A1000A	4TWR6060A1000A
Electrical Data V/Ph/Hz 2	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	15	22	28	41
Max Fuse Size (Amps)	25	35	45	60
Compressor	CLIMATUFF® - SCROLL	CLIMATUFF® - SCROLL	CLIMATUFF® - SCROLL	CLIMATUFF® - SCROLL
No. Compress. – No. Stages	1 -2	1-2	1-2	1-2
RL AMPS - LR AMPS	11.7 - 58.3	16.7 - 82	21.2 - 104	32.1 - 152.9
Outdoor Fan FL Amps	0.74	0.74	1.00	1.30
Fan HP	1/8	1/8	1/5	1/4
Fan Dia (inches)	27.6	27.6	27.6	27.6
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	10/3-LB/OZ	10/8-LB/OZ	12/9-LB/OZ	13/3-LB/OZ
Line Size - (in.) O.D. Gas ③	5/8	3/4	7/8	1-1/8
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8	3/8
Dimensions H x W x D (Crated)	46.4 x 35.1 x 38.7	51.0 x 35.1 x 38.7	51.0 x 35.1 x 38.7	51.0 x 35.1 x 38.7
Weight - Shipping	272	274	329	330
Weight - Net	236	236	292	293
Start Components	NO	NO	NO	NO
Sound Enclosure	NO	NO	NO	NO
Compressor Sump Heat	YES	YES	YES	YES
Optional Accessories: ④				
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Snow Leg - Base & Cap 4" High	n BAYLEGS002	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg - 4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003
Hard Start Kit Scroll	BAYKSKT260	BAYKSKT260	BAYKSKT263	BAYKSKT263
Extreme Condition Mounting Kit	BAYECMT004	BAYECMT004	BAYECMT004	BAYECMT004
Vertical Discharge Air Kit Base	4 BAYVDTA003	BAYVDTA004	BAYVDTA004	BAYVDTA004
Auto Charge Solenoid Kit	BAYCAKT001	BAYCAKT001	BAYCAKT001	BAYCAKT001
Refrigerant Lineset (5)	TAYREFLN9*	TAYREFLN7*	TAYREFLN3*	TAYREFLN4*

Certified in accordance with the Air-Source Unitary Heat Pump Equipment certification program which is based on AHRI Standard 210/240.
Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.
Standard line lengths - 60'. Standard lift - 25' Suction and Liquid line. For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-0¹. ([†]denotes latest revision)

For accessory description and usage, see page 5.
* = 15, 20, 25, 30, 40 and 50 foot lineset available.

MODEL	SOUND POWER		A-WEIGHT	ED FULL C	OCTAVE SC		ER LEVEL	dB - [dB(A	.)]
	LEVEL [dB(A)]	63	125	250	500	1000	2000	4000	8000
4TWR6024A	72	40.4	50.8	53.7	59.9	62.2	57.9	56.1	48.4
4TWR6036A	72	39.3	49.6	55.7	60.5	62.9	57.7	54.7	47.3
4TWR6048A	72	42	57.3	56.6	64	63.3	57.2	53.5	46.2
4TWR6060A	74	31.9	58.9	57.1	64.8	66.4	59.8	55.9	51.2

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

Note: Rated in accordance with AHRI Standard 270-2008.



Accessory Description and Usage

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

Extreme Conditions Mounting 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 rooftops, etc.

Low Ambient Cooling — For low ambient cooling below 55° see Application Guide APP-APG013-EN.

AHRI Standard Capacity Rating Conditions

AHRI 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.

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 $\begin{array}{c}4 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ $
Refrigerant Type 4 = R-410A
TRANE
W = Split Heat Pump T = Split Cooling
Product Family
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
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
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Gas Furnaces T U D 1 B 0 8 0 A 9 H 3 1 A A
$\begin{array}{c} \textbf{Gas rumaces} \qquad \underline{\textbf{T}} \ \underline{\textbf{U}} \ \underline{\textbf{D}} \ \underline{\textbf{1}} \ \underline{\textbf{B}} \ \underline{\textbf{0}} \ \underline{\textbf{8}} \ \underline{\textbf{0}} \ \underline{\textbf{9}} \ \underline{\textbf{H}} \ \underline{\textbf{3}} \ \underline{\textbf{1}} \ \underline{\textbf{A}} \ \underline{\textbf{A}} \\ \hline \underline{\textbf{A}} \ \underline{\textbf{A}}} \ \underline{\textbf{A}} \ \underline{\textbf{A}}} \ \underline{\textbf{A}} \ \underline{\textbf{A}} \ \underline{\textbf{A}} \ \underline{\textbf{A}} \ \underline{\textbf{A}} \ \underline{\textbf{A}}} \ \underline{\textbf{A}} \ \underline{\textbf{A}}$
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
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)
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 48 = 4 Tons 48 = 4 Tons 54 = 5 Tons 60 = 5 Tons 72 = 6 Tons 72 = 6 Tons 72 = 6 Tons
36 = 3 Tons V4 = 4 Tons H4 = 4 Tons 42 = 3.5 Tons V5 = 5 Tons H5 = 5 Tons 45 = 4 Tons H5 = 5 Tons H5 = 5 Tons 48 = 4 Tons H5 = 5 Tons H5 = 5 Tons 54 = 5 Tons H5 = 5 Tons H5 = 5 Tons
36 = 3 Tons V4 = 4 Tons 42 = 3.5 Tons V5 = 5 Tons 45 = 4 Tons H5 = 5 Tons 48 = 4 Tons H5 = 5 Tons 60 = 5 Tons H5 = 5 Tons 72 = 6 Tons H5 = 5 Tons Draft Inducer Speeds 1 = Single Speed 2 = Two Speed

Air Handler 1 2 3 4 5 6 7 8 9 1011 12 13 14 15 G A M 5 A 0 B 3 6 M 3 1 S A A I I I I I I I I I I I I I I I I I I I
Brand
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., Variable-Speed 8 = Best, Retail Utilmate High Effy., Variable-Speed
Major Design Change
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 Efrý Multi-Speed, 1-5 - nom. Tonnage (cfm/ton) H = High Efrý Multi-Speed, 1-5 - nom. Tonnage (cfm/ton) V = High Efrý Variable, 1-5 - nom. Tonnage (cfm/ton)
Power Supply
System Control Type S = Standard - 24 VAC C = CLII 13.8 VDC

Minor Design Change Unit Parts Identifier -

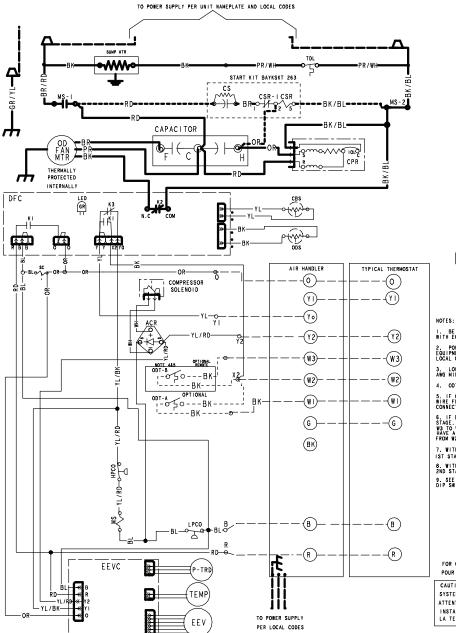
Heat Pump/ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Cooling Coils 4 T X C B 0 10 11 12 13 14 15 4 T X C B 0 36 A C 3 H C A
Refrigerant Type
Series T = Premium (Heat Pump or Convertible Coil) C = Standard (Cooling Only) Coil Design X = Direct Expansion Evaporator Coil
Coil Feature C = Cased A Coil A = Uncased 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''
0 = Brazed
Nominal Capacity in 1000's (BTUH)
Major Design Change
Efficiency C = Standard S = Hi Efficiency (derived from 10 SEER products)
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



Schematic Diagrams

(SEE LEGEND)

4TWR6024A



ACR A/C RECTIFIE CBS COIL BOTTON SERVICE CF FAR CAPACITOR CF FAR CAPACITOR CF FUNCTOR CF COMPENSOR CF FUNCTION CS STATING CAPACITOR EVV ELECTRONIC EPY PALVE EVV ELECTRONIC EPY PALVE EVV ELECTRONIC EPY VALVE EVV ENDOR FRESHEE CUTOUT SWITCH NG COMPESSUE TANASDUCER SC SWITCH OVER VALVE SOLKNOID SM STSTEW ON-OF SWITCH TO DISON THEMPASTAT P-TOD PESSUE TANASDUCER SC SWITCH OVER VALVE SOLKNOID SM STSTEW ON-OF SWITCH TOD SCHMEL LINE THEMOSTAT TOR TIME DELAY RELAT INF BESUME TANASDUCER SC SWITCH OVER VALVE SOLKNOID SM STSTEW ON-OF SWITCH TOD SCHMEL INE THEMPOSTAT TOR TIME DELAY RELAT INF SOLVER CONDUCTORS OUTSON THEMPASTAT P-TOD PESSUE TANASDUCER CM_CAULTION USE CONDUCTORS ONLY I WITT FOUNDER SAME NOT PESIONE TO ACEPTE CONDUCTORS ONLY I WITT FOUNDER SAME NOT PESIONE I DE SUME POWER SUPPLY AGREES NITH SOUTORS TO HERE TENDE 2. POWER WIRING AND GOUNDING OF EOUIPHENT WAST COMPLY WITH CONDECT A JUMPER WIRE FROM RETON USED. CONNECT A JUMPER WIRE FROM RETON I USED. CONNECT A JUMPER WIRE FROM RETON I USED. CONNECT A JUMPER WIRE FROM RETON VECTOR STAGE CONNECT A JUMPER WIRE FROM RETON I USED. CONNECT A JUMPER WIRE FROM RETON RETON I USED. CONNECT A JUMPER WIRE FROM RETO

7. WITH YI ENERGIZED, INDOOR FAN IS IST STAGE AIRFLOW.

 WITH YI & Y2 ENERGIZED, INDOOR FAN IS 2ND STAGE AIRFLOW.
SEE AIR HANDLER INSTALLER GUIDE FOR DIP SWITCH CONFIGURATIONS.

FOR CANADIAN INSTALLATIONS POUR INSTALLATIONS CANADIENNES CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING ISOV-TO-GROUND ATTENTION: NE CONVIENT PAS AUX

INSTALLATIONS DE PLUS DE 150 V LA TERRE

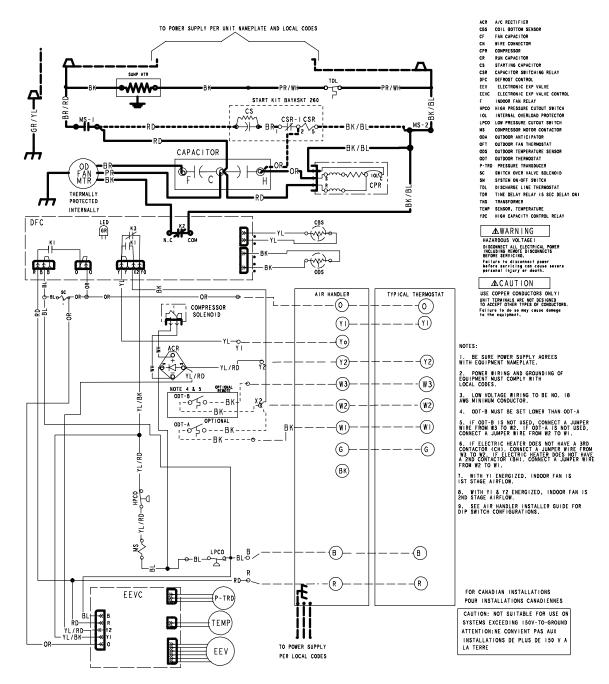
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Schematic Diagrams

(SEE LEGEND)

4TWR6036A



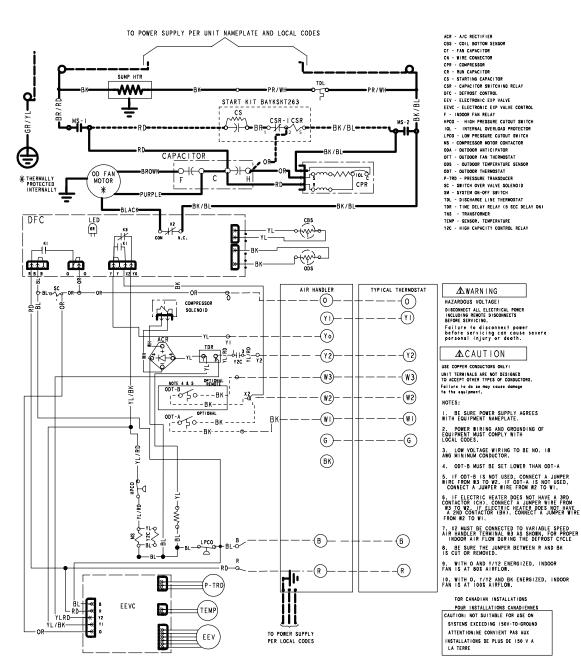
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Schematic Diagrams

(SEE LEGEND)

4TWR6048A, 060A





Schematic Diagrams

LEGEND

~	co	DLOR OF	WIRE			MARKER	
ΒŔ	/BL	BLACK	WIRE	WITH	BLUE	MARKER	
	4COL	OR OF	MARKE	R			
ΒK	BLACK	OR	ORAN	GE	ΥL	YELLOW	
ΒL	BLUE	RD	RED		GR	GREEN	
ΒR	BROWN	WH	WHITE		PR	PURPLE	

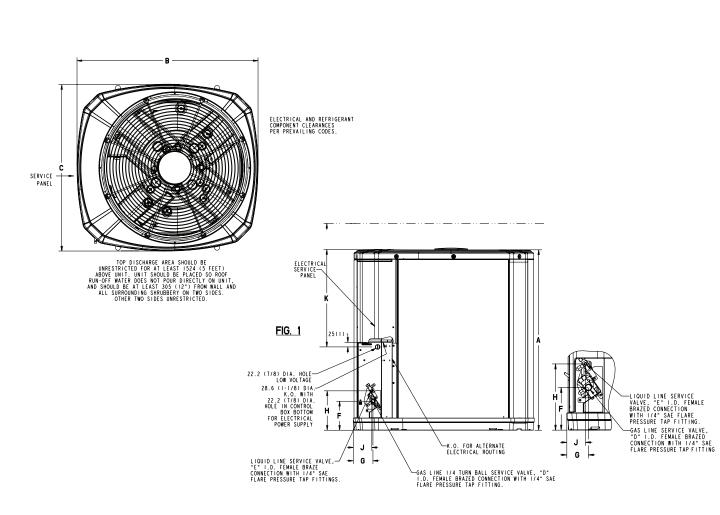
24 V. LINE V. } FACTORY WIRING 24 V. LINE V. } FIELD WIRING - X → FIELD INSTALLED FACTORY WIRING GROUND GROUND GROUND GROUND CAPACITON CAPACITOR H ← RELAY CONTACT (N.O.) H ← RELAY CONTACT (N.C.)
THERMISTOR
00 INTERNAL OVERLOAD PROTECTOR
PRESSURE ACTUATED SWITCH
← → TEMP. ACTUATED SWITCH
MALE TERM.)
POL. PLUG MALE HOUSING
OMOTOR WINDING
O TERMINAL

CA	COOLING ANTICIPATOR		LOW PRESSURE CUTOUT SW.
CBS	COIL BOTTOM SENSOR	MS	COMPRESSOR MOTOR CONTACTOR
CF	FAN CAPACITOR	ODA	OUTDOOR ANTICIPATOR
CN	WIRE CONNECTOR	OF T	OUTDOOR FAN THERMOSTAT
CPR	COMPRESSOR	ODS	OUTDOOR TEMPERATURE SENSOR
CR	RUN CAPACITOR	ODT	OUTDOOR THERMOSTAT
CS	STARTING CAPACITOR	RHS	RESISTANCE HEAT SWITCH
CSR	CAPACITOR SWITCHING RELAY	SC	SWITCHOVER VALVE SOLENOID
DFC	DEFROST CONTROL	SM	SYSTEM "ON-OFF" SWITCH
F	INDOOR FAN RELAY	TDL	DISCHARGE LINE THERMOSTAT
НA	HEATING ANTICIPATOR	TNS	TRANSFORMER
HPCO	HIGH PRESSURE CUTOUT SW.	ΤS	HEATING-COOLING THERMOSTAT
IOL	INTERNAL OVERLOAD PROTECTOR	ΤSΗ	HEATING THERMOSTAT



Dimensions

4TWR6 Outline Drawing Note: All dimensions are in MM (Inches).



MODELS	BASE	А	в	с	D	Е	F	G	н	J	к
4TWR6024A	4	1045 (41 1/8)	946 (37-1/4)	870 (34-1/4)	5/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	711 (28)
4TWR6036A	4	1147 (45 1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
4TWR6048A	4	1147 (45 1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
4TWR6060A	4	1147 (45 1/8)	946 (37-1/4)	870 (34-1/4)	1-1/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)

Mechanical Specifications

General

The 4TWR6 is fully charged from the factory for matched indoor section and up to 15 feet of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit shall be certified to UL 1995. Exterior is designed for outdoor application.

Casing

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

Refrigerant Controls

Refrigeration system controls include condenser fan, compressor contactor and high pressure switch. High and low pressure controls are inherent to the compressor. A factory installed liquid line drier is standard.

Compressor

The Climatuff[®] 2-stage compressor features internal over temperature and pressure protection and hermetic motor. Other features include: centrifugal oil pump and modular plugs for electrical connections.

Condenser Coil

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. For low ambient cooling below 55° see Application Guide.

01/13





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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.