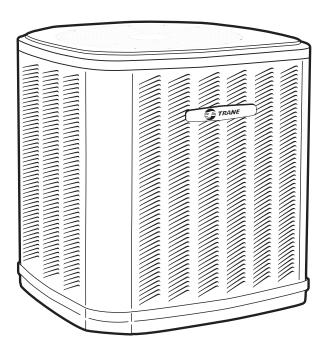


Split System Cooling Product & Performance Data

XB 13 2TTB3018-060

 $1\frac{1}{2} - 5$ Tons





Features and Benefits

- Efficiency up to 13.25 SEER
- All aluminum **Spine Fin™** coil
- Fast, complete-drain, weatherproof base
- WeatherGuard™ fasteners
- Polyslate gray cabinet with anthracite gray badge and cap
- Quick-Sess™ cabinet, easy service access and refrigerant connections with full coil protection
- · Glossy corrosion resistant finish
- Internal high/low pressure & temperature protection
- Comfort "R"™ Mode Approved

- 018, 024, 030, 042 & 048 ship with start kit
- Liquid line filter-drier
- S.E.E.T Design Testing
- R-22 refrigerant
- 100% line run test
- Low ambient cooling to 55°F as shipped
- Low ambient cooling to 30°F with AY28X079
- Low ambient cooling to 0°F with BAYLOAM103



Contents

Features and Benefits			
General Data	4		
Product Specifications	4		
A-weighted Sound Power Level [dB(A)]	4		
Accessory Description and Usage	5		
AHRI Standard Capacity Rating Conditions	5		
Model Nomenclature	6		
Electrical Data	7		
Dimensions	12		
Mechanical Specification Options	13		



General Data

Product Specifications

Model No. 1	2TTB3018A1000C	2TTB3024A1000C	2TTB3030A1000C	2TTB3036A1000C
Electrical Data V/Ph/Hz 2	200/230/1/60	200/230/1/60	200/230/1/60	208/230/1/60
Min Cir Ampacity	8	12	13	21
Max Fuse Size (Amps)	15	20	20	35
Compressor	RECIP	RECIP	RECIP	SCROLL
RL Amps - LR Amps	5.8 - 38.6	8.7 - 57.8	9.5 - 63	15.4 - 87
Outdoor Fan FL Amps	0.6	0.9	0.7	1.3
Fan HP	1/15	1/8	1/8	1/6
Fan Dia (inches)	19.0	19.0	23.0	23.0
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-22 (Not factory supplied) 4/00-LB/OZ	5/02-LB/OZ	5/08-LB/OZ	6/05-LB/OZ
Line Size - (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)	30.1 x 26.7 x 30	37.2 x 26.7 x 30	38 x 30.1 x 33	38 x 30.1 x 33
Weight - Shipping	182	195	225	205
Weight - Net	163	175	197	178
Start Components	YES	YES	YES	NO
Sound Enclosure	NO	NO	NO	NO
Compressor Sump Heat	NO	NO	NO	NO
Optional Accessories: 4				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control A/C	AY28X079	AY28X079	AY28X079	AY28X079
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Crank Case Heater Kit	BAYCCHT300	BAYCCHT300	BAYCCHT300	BAYCCHT301
Hard Start Kit Scroll				BAYKSKT260
Extreme Condition Mounting Kit	BAYECMT001	BAYECMT001	BAYECMT001	BAYECMT001
Refrigerant Lineset ⑤	TAYREFLN1*	TAYREFLN2*	TAYREFLN2*	TAYREFLN3*

TAT REFLINE

INTREFLINE

INTREFLINE

IAT REFLINE

IAT REF

A-weighted Sound Power Level [dB(A)]									
MODEL	SOUND POWER	A-WEIGHTED FULL OCTAVE SOUND POWER LEVEL dB - [dB(A)]							
	LEVEL [Db(a)]	63	125	250	500	1000	2000	4000	8000
2TTB3018A1	76	43.8	52.8	56.7	65.3	67.4	69.6	64.6	57.2
2TTB3024A1	78	50.9	55.9	63.2	71.2	72.0	70.5	64.3	56.8
2TTB3030A1	78	45.8	56.9	61.7	68.5	71.4	70.3	61.2	54.2
2TTB3036A1	76	44.8	60.5	61.4	69.2	72.1	65.2	57.3	51.3
2TTB3042A1	79	46.0	60.6	70.4	72.9	72.4	69.5	60.9	51.2
2TTB3048A1	79	49.3	57.7	71.0	72.2	72.7	70.5	63.7	53.7
2TTB3060A1	79	53.6	57.5	63.6	73.3	73.1	71.3	63.1	55.9
Note: Tested in accordance with AHRI Standard 270.95. (Not listed with ARI)									



General Data

Product Specifications

Model No. ①	2TTB3042A1000C	2TTB3048A1000C	2TTB3060A1000C
Electrical Data V/Ph/Hz ②	200/230/1/60	200/230/1/60	208/230/1/60
Min Cir Ampacity	21	25	33
Max Fuse Size (Amps)	35	40	50
Compressor	RECIP	RECIP	SCROLL
RL Amps - LR Amps	15.4 - 93.5	18.6 - 93.4	25.3 - 146
Outdoor Fan FL Amps	1.4	1.4	1.3
Fan HP	1/6	1/6	1/4
Fan Dia (inches)	27.6	27.6	27.6
Coil	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-22 (Not factory supplied)	6/13-LB/OZ	8/14-LB/OZ	8/11-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)	38.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7
Weight - Shipping	283	307	280
Weight - Net	249	271	244
Start Components	YES	YES	YES
Sound Enclosure	YES	YES	NO
Compressor Sump Heat	NO	NO	YES
Optional Accessories: 4			
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control A/C	AY28X079	AY28X079	AY28X079
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101
Crank Case Heater Kit	BAYCCHT300	BAYCCHT300	
Hard Start Kit Scroll			
Extreme Condition Mounting Kit	BAYECMT001	BAYECMT001	BAYECMT001
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.

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.

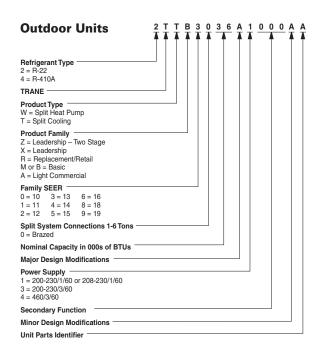


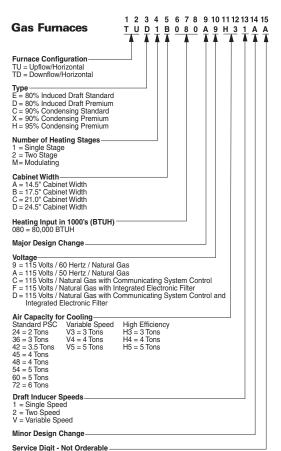


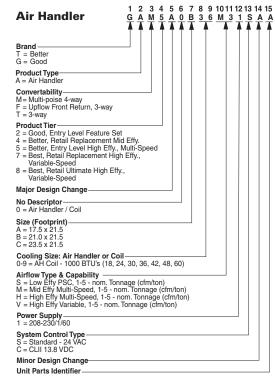


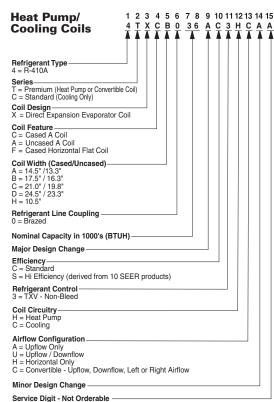
Model Nomenclature

6







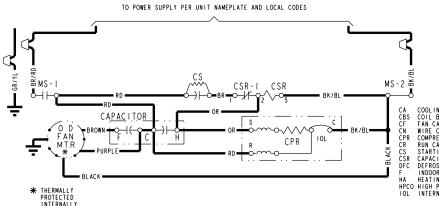




Schematic Diagrams

(SEE LEGEND)

2TTB3018,024,030A



CA COOLING ANTICIPATOR
CBS COIL BOTTOM SENSOR
CF FAN CAPACITOR
OWNER COUNTECTOR
CPR COMPRESSOR
CF RUN CAPACITOR
CS STARTING CAPACITOR
CS STARTING CAPACITOR
CS CAPACITOR SWITCHING RELAY
DFC DEFROST CONTROL
F INDOOR FAN RELAY
HA HEATING ANTICIPATOR
HEATING ANTICIPATOR
HEOCH HIGH PRESSURE CUTOUT SW.
IOL INTERNAL OVERLOAD PROTECTOR

LPCO LOW PRESSURE CUTOUT SW.

MS COMPRESSOR MOTOR CONTACTOR
ODA OUTDOOR ANTICIPATOR
OFT OUTDOOR FAN THERMOSTAT
ODS OUTDOOR FAN THERMOSTAT
RHS RESISTANCE HEAT SWITCH
SC SWITCHOVER VALVE SOLENOID
SM SYSTEM "ON-OFF" SWITCH
TIDL DISCHARGE LINE THERMOSTAT
TNS TRANSFORMER
TS HEATING THERMOSTAT
TSH HEATING COOL ING THERMOSTAT

- COLOR OF WIRE BR/BL BLACK WIRE ... BLACK WIRE WITH BLUE MARKER

BLACK OR ORANGE GR GREEN PR PURPLE BL BR BLUE RD RED WHITE BROWN

TYPICAL AIR HANDLER MS 0 (Y) ① **™** NOTES 182 HEATER ODT-B (OPTIONAL)
(REMOTE) **W**3 CONTROLS -W2 1 **(II)** _ (OPTIONAL) -0-5-0-x-**⑤** (6) TNS } 24 V TNS R TO POWER SUPPLY

⚠ WARNING HAZARDOUS VOLTAGE!

DISCONNECT ALL ELECTRIC 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!

- I. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3
 AT AIR HANDLER.
 IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL
 BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
 2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN WI & W2
 AT AIR HANDLER.
 3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE I8 AWG MIN.

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.

22-1769-06 7

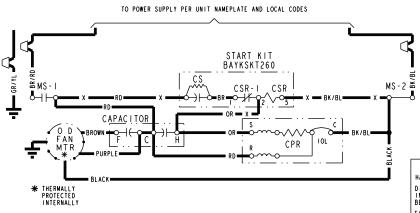
PER LOCAL CODES



Schematic Diagrams

(SEE LEGEND)

2TTB3036A1000C

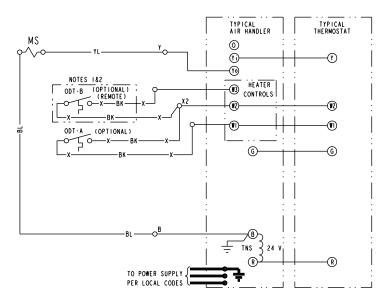


⚠ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.

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!



- COLOR OF WIRE BK/BL BLACK WIRE WITH BLUE MARKER

COLOR OF MARKER BK BLACK OR ORANGE BL BLUE RD RED YI YELLOW GR GREEN WH WHITE

NOTES:

IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN WI & W2 AT AIR HANDLER. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

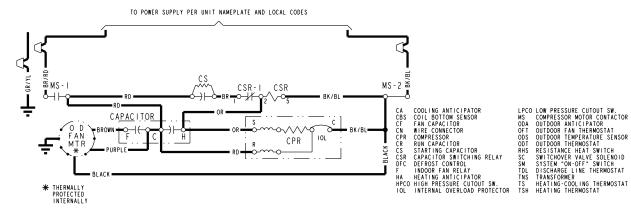
FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON
SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX
INSTALLATIONS DE PLUS DE 150 V A
LA TERRE.

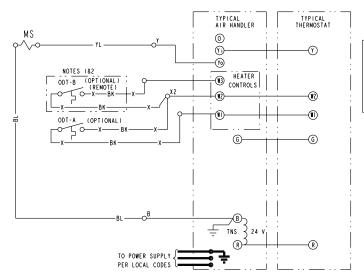


Schematic Diagrams

(SEE LEGEND)

2TTB3042A1000C, 2TTB3048A1000C





- COLOR OF WIRE BK/BL BLACK WIRE WITH BLUE MARKER

COLOR OF MARKER BK BLACK OR ORANGE YELLOW BLUE RD RED WH WHITE BR BROWN PR PURPLE

 WARNING △ CAUTION HAZARDOUS VOLTAGE! USE COPPER CONDUCTORS ONLY! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH! FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!

- I. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3
 AT AIR HANDLER.
 IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL
 BOX IN AM APPROVED WEATHER PROOF ENCLOSURE.
 2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN WI & W2
 AT AIR HANDLER.
 3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE I8 AWG MIN.

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.

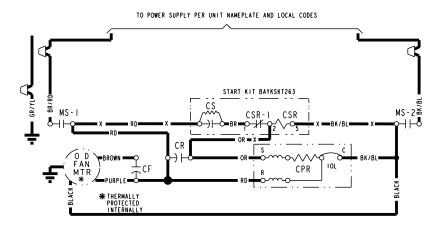


Schematic Diagrams

(SEE LEGEND)

2TTB3060A1000C

10



CA COOLING ANTICIPATOR
CBS COIL BOTTOM SENSOR
CF FAN CAPACITOR
CN WIRE CONNECTOR
CPR COMPRESSOR
CR RUN CAPACITOR
CS STARTING CAPACITOR
CS CAPACITOR SWITCHING RELAY
DFC DEFROST CONTROL
F INDOOR FAN RELAY
HA HEATING ANTICIPATOR
HOPCO HIGH PRESSURE CUTOUT SW.
IOL INTERNAL OVERLOAD PROTECTOR LPCO LOW PRESSURE CUTOUT SW.

MS COMPRESSOR MOTOR CONTACTOR
ODA OUTDOOR ANTICIPATOR
OFT OUTDOOR FANTHERMOSTAT
ODS OUTDOOR FANTHERMOSTAT
RHS RESISTANCE HEAT SWITCH
SC SWITCHOVER VALVE SOLEMOID
SM SYSTEM "ON-OFF" SWITCH
DL DISCHARGE LINE THERMOSTAT
TINS TRANSFORMER
TS HEATING THERMOSTAT
TSH HEATING COOLING THERMOSTAT

> - COLOR OF WIRE BK/BL BLACK WIRE ...
> COLOR OF MARKER BLACK WIRE WITH BLUE MARKER BLACK OR ORANGE YL YELLOW

> RD RED GR GREEN BL BLUE WHITE PR PURPLE

△ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC 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!

NOTES:

- I. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3
 AT AIR HANDLER.
 IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL
 BOX IN AM APPROVED WEATHER PROOF ENCLOSURE.
 2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN WI & W2
 AT AIR HANDLER.
 3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE I8 AWG MIN.

FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON
SYSTEMS EXCEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX
INSTALLATIONS DE PLUS DE 150 V A

MS SW. ORANGE SW. NOTES 182 ODT-B (OPTIONAL) X BK X ODT-A (OPTIONAL) X BK X BK X X	TYPICAL AIR HANDLER O TO TO HEATER CONTROLS TO	TYPICAL THERMOSTAT THERMOSTAT THERMOSTAT THERMOSTAT THERMOSTAT THERMOSTAT THERMOSTAT THERMOSTAT THERMOSTAT
BL — OB TO POWER SUPPLY { PER LOCAL CODES	# TNS 24 V	



LEGEND

COLOR OF WIRE

BK/BL BLACK WIRE WITH BLUE MARKER

COLOR OF MARKER

BK BLACK OR ORANGE YL YELLOW

BL BLUE RD RED GR GREEN

BR BROWN WH WHITE PR PURPLE

SYMBOLS

24 V. 24 V. LINE V. FACTORY WIRING — - 24 V. FIELD WIRING - - LINE V. ∫ -X - FIELD INSTALLED FACTORY WIRING GROUND JUNCTION WIRE NUT OR CONNECTOR COIL \rightarrow \vdash CAPACITOR \dashv RELAY CONTACT (N.O.) -1/-RELAY CONTACT (N.C.) THERMISTOR INTERNAL OVERLOAD PROTECTOR PRESSURE ACTUATED SWITCH TEMP. ACTUATED SWITCH POL. PLUG FEMALE HOUSING (MALE TERM.) POL. PLUG MALE HOUSING (FEMALE TERM.) √√√ RESISTOR OR HEATING ELEMENT OMOTOR WINDING TERMINAL

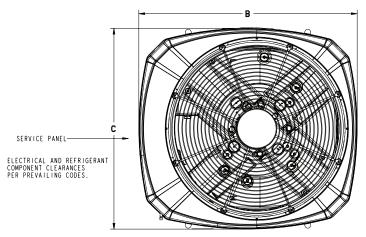
CA COOLING ANTICIPATOR
CBS COIL BOTTOM SENSOR
CF FAN CAPACITOR
CN WIRE CONNECTOR
CPR COMPRESSOR
CONTROL
CR RUN CAPACITOR
CS STARTING CAPACITOR
CS CAPACITOR
CAPACITO



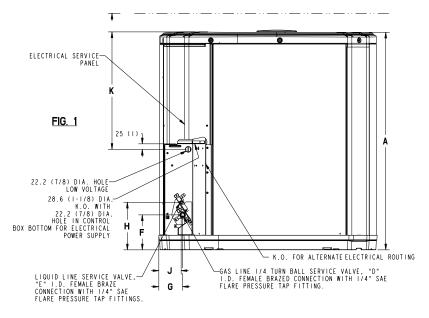
Dimensions

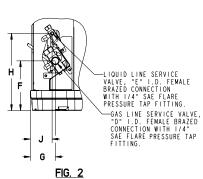
2TTB3 Outline Drawing

NOTE: ALL DIMENSIONS ARE IN MM (INCHES)



TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST 1524 (5 FEET) ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT. AND SHOULD BE AT LEAST 305 (12") FROM WALL AND ALL SURROUNDING SHRUBBERY ON TWO SIDES. OTHER TWO SIDES UNRESTRICTED.





MODELS	BASE	FIG.	Α	В	С	D	Е	F	G	Н	J	K
2TTB3018A	2	2	651 (25-5/8)	724 (28-1/2)	651 (25-5/8)	5/8	1/4	127 (5)	57 (2-1/4)	181 (7-1/8)	44 (1-3/4)	457 (18)
2TTB3024A	2	2	832 (32-3/4)	724 (28-1/2)	651 (25-5/8)	3/4	5/16	137 (5-3/8)	65 (2-5/8)	210 (8-1/4)	57 (2-1/4)	457 (18)
2TTB3030A	3	2	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	5/16	137 (5-3/8)	86 (3-3/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
2TTB3036A	3	2	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	7/8	3/8	137 (5-3/8)	86 (3-3/8)	210 (8-1/4)	79 (3-1/8)	508 (20)
2TTB3042A	4	1	841 (33-1/8)	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)	508 (20)
2TTB3048A	4	1	1045 (41-1/8)	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)	508 (20)
2TTB3060A	4	1	1045 (41-1/8)	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)	508 (20)

From Dwg. 21D153074 Rev. 10

12 22-1769-06



Mechanical **Specification Options**

General

The 2TTB3 is 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 A.H.R.I. certified. The unit shall be certified to UL Standard 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 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 compressor features internal over temperature and pressure protector, total dipped hermetic motor and thermostatically controlled sump heater. Other features include: centrifugal oil pump, and low vibration and noise.

Condenser Coil

The Spine Fin™ 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 $46 \text{ to } -10^{\circ}\text{F}$.







04	4/12