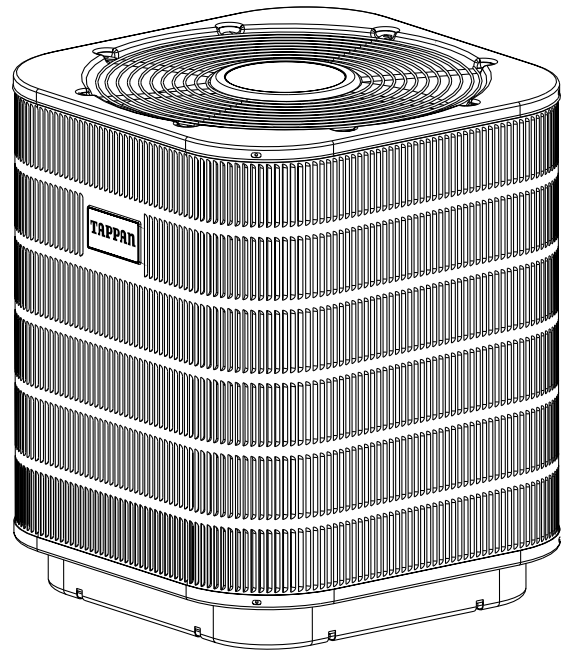


FT3BC Series Extra High Efficiency Heat Pumps 12 SEER Residential System 1-1/2 – 5 Ton Capacity

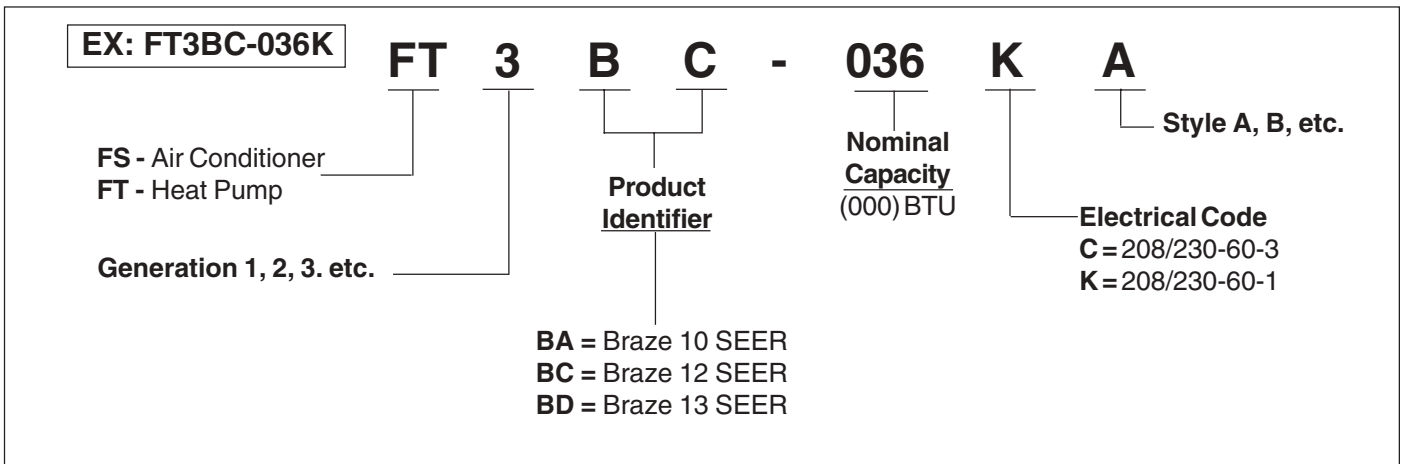
The FT3BC Series of heat pumps offers exceptional performance from a small, compact package. The heat pump, when combined with our engineered coils or air handlers, offers a full line of quality, split system heating and cooling equipment. Units are ideally sized for slab or rooftop mounting in single, multifamily, and light commercial applications.

FEATURES and BENEFITS

- **Designed using galvanized steel** – with a polyester urethane coat finish. The 950 hour salt spray finish resists corrosion 50% better than comparable units.
- **Copper Tube / Aluminum Fin Coils** – Both indoor and outdoor coils are designed to optimize heat transfer, minimize size and cost, and increase durability and reliability.
- **Permanently Lubricated Motor** – A heavy duty PSC motor for long lasting reliability and quiet operation. Requires no maintenance and is completely protected from rain and snow.
- **Full Service Valves** – These brass valves are easily accessible and simplify servicing of the refrigeration system.
- **Louvered Condenser Guard** – Durable metal guard protects the coil from yard hazards and extreme weather.
- **Time/Temperature Defrost** – A reliable, industry standard control offers various time settings to meet any type climate.
- **Removable Top Grille Assembly** – Allows ease of service from the top without disconnecting fan motor leads.
- **One Piece Top/Orifice** – Designed for maximum airflow and quiet operation.
- **Common Suction Service Port** – This port allows the contractor to read the suction pressure in all modes of operation without removing any panels, saving time and increasing serviceability.
- **2-1/2" Pedestal Base** – The sturdy base keeps the bottom of the coil out of harms way. Secondly, the base has weep holes along the edge to allow the water from the defrosting coil and rain to flow away from the unit.
- **Five Minute Restart Time Delay** – When the unit shuts down, a five minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.
- **Suction Accumulator** – Protection from liquid flood back and future compressor failures. All 12 seer H.P. have scroll compressors.
- **Hot Gas Muffler** – Reduces compressor noise and vibration.
- **Easy Compressor and Control Access** – Designed to make servicing easier for the contractor, access panels are provided to all controls and the compressor from the side of the unit.
- **8 Year Limited All Parts Warranty, 5 Year Quality Pledge and 10 Year Parts Coverage on Compressor** – The best in the industry and has proven to be a major benefit to the consumer.



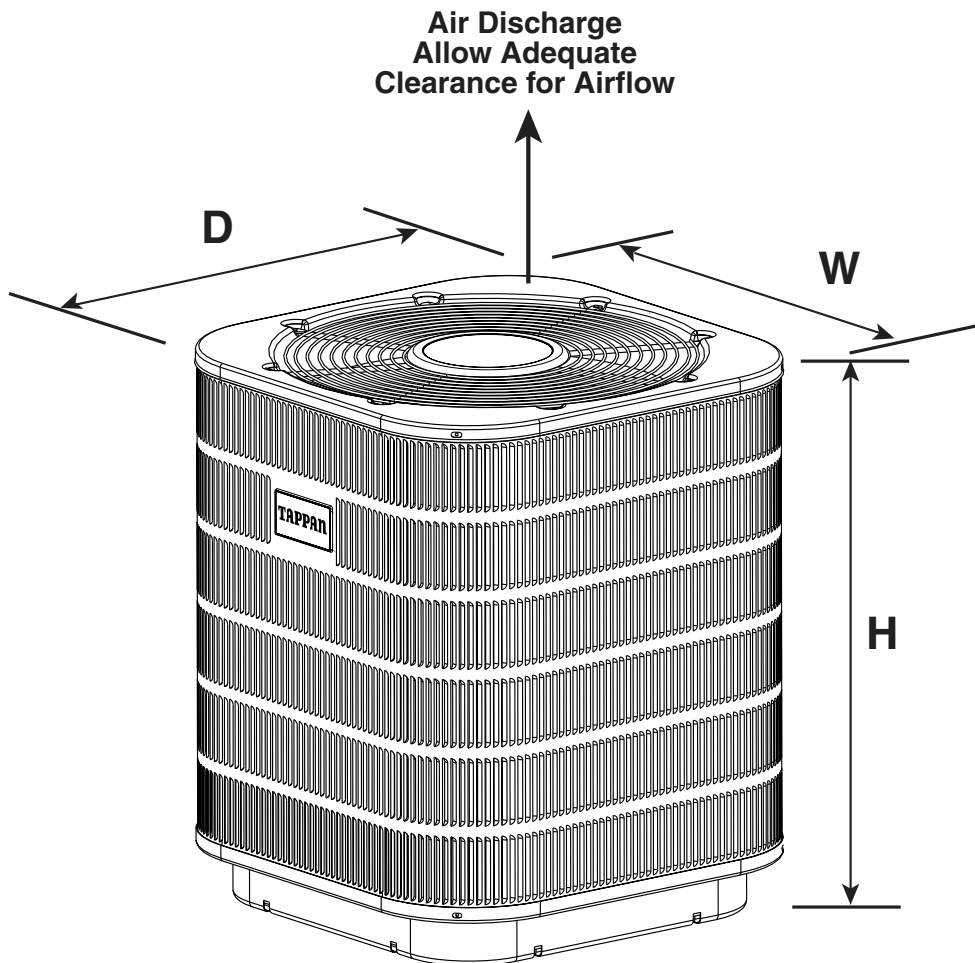
MODEL IDENTIFICATION CODES



DIMENSIONS

HEAT PUMP OUTDOOR SECTION

| FT3BC- | 018KA | 024K | 030K | 036K | 042K | 048K | 060K |
|--------|--------|--------|--------|--------|--------|--------|--------|
| H | 26 1/2 | 30 1/2 | 34 1/2 | 38 1/2 | 42 1/2 | 38 1/2 | 42 1/2 |
| W | 22 1/2 | 30 1/2 | 30 1/2 | 30 1/2 | 30 1/2 | 30 1/2 | 30 1/2 |
| D | 22 1/2 | 30 1/2 | 30 1/2 | 30 1/2 | 30 1/2 | 30 1/2 | 30 1/2 |



PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

12 SEER — High Efficiency — Single Phase

| Model No. FT3BC- | | 18KA | 24K | 30K | 36K | 42K | 48K | 60K | |
|---|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| Electrical | Volts-Cycles-Phase (1) | 208/230-60-1 | 208/230-60-1 | 208/230-60-1 | 208/230-60-1 | 208/230-60-1 | 208/230-60-1 | 208/230-60-1 | |
| Data | Total Amps | 10.3 | 11.6 | 13.6 | 17.4 | 19.4 | 20.7 | 30.3 | |
| | Delay Fuse Max. (2) | 20 | 20 | 25 | 35 | 40 | 40 | 60 | |
| | Min. Circuit Ampacity | 12.6 | 14.2 | 16.6 | 21.4 | 23.9 | 25.5 | 37.5 | |
| Component Data | Coil | Area | 9.87 | 17.9 | 20.4 | 23.0 | 25.5 | 23.0 | 25.5 |
| | | Rows-FPI | 1-18 | 1-18 | 1-18 | 1-20 | 1-20 | 2-16 | 2-16 |
| | | Tube Dia. | 3/8 O.D. | 3/8 O.D. | 3/8 O.D. | 3/8 O.D. | 3/8 O.D. | 3/8 O.D. | 3/8 O.D. |
| | Fan Motor | Type | PSC | PSC | PSC | PSC | PSC | PSC | PSC |
| | | Amps | 0.34 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 |
| | | Watts-HP | 37 1/20 | 245 | 245 | 245 | 300 | 300 | 300 |
| | Fan Blade | Dia.-#Blades | 18 in. - 3 | 24 in. - 3 | 24 in. - 3 | 24 in. - 3 | 24 in. - 3 | 24 in. - 3 | 24 in. - 3 |
| | | SCFM | 2000 | 3300 | 3300 | 3300 | 4000 | 4000 | 4000 |
| | Compressor Data* | RLA | 10.0 | 10.2 | 12.2 | 16.0 | 17.9 | 19.2 | 28.8 |
| | | LRA | 42 | 56 | 67 | 88 | 104 | 137 | 169 |
| Refrigerant Suction Line- Length/O.D. (Liq. Line All Lengths - 3/8" O.D.) | 15 - 24 ft. | 5/8" (3) | 5/8" (3) | 3/4" | 3/4" | 3/4" | 7/8" | 7/8" | |
| | 25 - 39 ft. | 3/4" | 3/4" | 3/4" | 3/4" | 7/8" (4) | 7/8" | 1 1/8" (5) | |
| | 40 - 75 ft. | 3/4" | 3/4" | 3/4" | 7/8" (4) | 7/8" (4) | 7/8" | 1 1/8" (5) | |
| Refrigerant Charge R-22 Ounces | (Outdoor unit, Indoor Unit, 15' Line Set) | 72 | 112 | 133 | 146 | 162 | 240 | 264 | |
| Weight Approximate (lbs.) | Net | 162 | 170 | 178 | 188 | 204 | 253 | 282 | |
| | Ship | 174 | 182 | 190 | 200 | 216 | 265 | 294 | |

* Values shown are most severe and may vary slightly depending on the make of compressor supplied.

(1) Operating Voltage Range: 198v min. - 253v max.

(2) HACR type circuit breakers may be used.

(3) Requires 3/4" to 5/8" reducer from unit to line.

(4) Requires 7/8" to 3/4" reducer from unit to line.

(5) Requires 7/8" to 1 1/8" reducer from unit to line.

ACCESSORIES - Condensing Unit

Start Assist Kit - 912933

Provides additional starting torque for the compressor motor when operating with low line voltage or high operating temperatures.

Snow Stand

Plastic-coated, molded wire stand which elevates units 7-1/4" above ground level.

913145 - (018 through 060) Shipped six (6) per box.

Outdoor Thermostat - 913235

Two-stage logic provides ability to lock out electric strips down to balance point and bring on in stages.

Fan Delay Kit (TDR)

911758 - 80-second fan delay

Liquid Line Solenoid Kit (LLS)

912650 - Required on some models

| COPPER WIRE SIZE — AWG (1% Voltage Drop) | | | | |
|---|-----|-----|----|-------------------------|
| Supply Wire Length-Feet | | | | Supply Circuit Ampacity |
| 200 | 150 | 100 | 50 | |
| 6 | 8 | 10 | 14 | 15 |
| 4 | 6 | 8 | 12 | 20 |
| 4 | 6 | 8 | 10 | 25 |
| 4 | 4 | 6 | 10 | 30 |
| 3 | 4 | 6 | 8 | 35 |
| 3 | 4 | 6 | 8 | 40 |
| 2 | 3 | 4 | 6 | 45 |
| 2 | 3 | 4 | 6 | 50 |

Wire Size based on N.E.C. for 60° type copper conductors.

SYSTEM HEATING & COOLING CAPACITIES

12 SEER — Extra High Efficiency — Single Phase

| Outdoor Unit | Indoor Unit | | | | | | | |
|------------------------|-----------------------|-----------------|------|---------------------|---------------------|------|-----------------|-------------------------------|
| Model Number FT3BC- | Model Number C3BA- | Cooling Btuh | SEER | Heating Btuh@47° | Heating Btuh@17° | HSPF | Nominal SCFM | Required Indoor Orifice |
| 018KA | 030C/U-A (2) | 18,000 | 12.0 | 17,600 | 10,800 | 7.9 | 675 | .053(1) |
| 024K | 036C/U-A (2) | 24,000 | 12.0 | 22,400 | 12,800 | 7.2 | 700 | .065(1) |
| 024K | 030C/U-B | 24,000 | 12.0 | 22,400 | 12,800 | 7.2 | 700 | .065(1) |
| 030K | 036C/U-A+TDR (2) | 28,600 | 12.0 | 28,400 | 16,200 | 7.6 | 900 | .067 |
| 030K | 036C/U-B+TDR (2) | 28,600 | 12.0 | 28,400 | 16,200 | 7.6 | 900 | .067 |
| 036K | 042C/U-B | 34,600 | 12.0 | 34,600 | 19,700 | 7.6 | 1100 | .077(1) |
| 042K | 048C/U-B+TDR (2) | 40,500 | 12.0 | 40,500 | 23,100 | 7.6 | 1300 | .085(1) |
| 042K | 048C/U-C+TDR | 40,500 | 12.0 | 40,500 | 23,100 | 7.6 | 1300 | .085(1) |
| 048K | 060C/U-C (2) | 48,000 | 12.0 | 48,000 | 27,400 | 7.6 | 1600 | .093 |
| 060K | 060C-C+TDR (2) | 57,000 | 12.0 | 57,000 | 32,800 | 7.6 | 1700 | .099(1) |

| Outdoor Unit | Indoor Unit | | | | | | | |
|------------------------|---------------------------|-----------------|------|---------------------|---------------------|------|-----------------|-------------------------------|
| Model Number FT3BC- | Model Number B3B(M,V)- | Cooling Btuh | SEER | Heating Btuh@47° | Heating Btuh@17° | HSPF | Nominal SCFM | Required Indoor Orifice |
| 018KA | 030K-A | 17,600 | 12.0 | 17,200 | 10,200 | 8.1 | 675 | .053(1) |
| 024K | 030K-A | 24,000 | 12.0 | 22,400 | 12,800 | 7.2 | 700 | .065(1) |
| 024K | 030K-B | 24,000 | 12.0 | 22,400 | 12,800 | 7.2 | 700 | .065(1) |
| 030K | 030K-A+TDR | 28,600 | 12.0 | 28,400 | 16,200 | 7.6 | 900 | .067(1) |
| 030K | 036K-B+TDR | 28,600 | 12.0 | 28,400 | 16,200 | 7.6 | 900 | .067(1) |
| 036K | 042K-B | 34,600 | 12.0 | 34,600 | 19,700 | 7.6 | 1100 | .077(1) |
| 042K | 048K-B+TDR | 40,500 | 12.0 | 40,500 | 23,100 | 7.6 | 1300 | .085(1) |
| 048K | 060K-C | 48,000 | 12.0 | 48,000 | 27,400 | 7.6 | 1600 | .093(1) |
| 060K | 060K-C+TDR | 57,500 | 12.0 | 58,000 | 32,800 | 7.6 | 1700 | .099(1) |

13 SEER — (Rating for FT3BC with VSB or LLS)

| Model Number FT3BC- | Model Number C3BA- | Cooling Capacity (Btu/h) | SEER Rating | Heating Capacity (Btu/h) @ 47° | HSPF | Heating Capacity (Btu/h) @ 17° | Nominal Airflow (SCFM) | Indoor Orifice Size (in) |
|------------------------|------------------------|--------------------------------|----------------|--------------------------------------|------|--------------------------------------|------------------------------|--------------------------------|
| 018KA | 030(C,U)-A/B+VSB | 18,200 | 13.0 | 17,800 | 8.1 | 11,000 | 700 | 0.053 (1) |
| 024K | 036(C,U)-B+TDR+LLS | 24,200 | 13.0 | 22,600 | 7.3 | 13,000 | 700 | 0.065 (1) |
| 024K | 030(C,U)-B+VSB | 24,200 | 13.0 | 22,000 | 7.8 | 12,500 | 720 | 0.065 (1) |
| 030K | 042(C,U)-B+TDR+LLS | 28,800 | 13.0 | 28,600 | 7.7 | 16,300 | 900 | 0.067 (1) |
| 030K | 036(C,U)-B+VSB | 28,800 | 13.0 | 28,000 | 8.0 | 15,900 | 990 | 0.067 |
| 036K | 042(C,U)-B+LLS+VSB | 35,000 | 13.0 | 34,400 | 8.0 | 20,000 | 1,100 | 0.077 (1) |
| 042K | 048(C,U)-(B,C)+LLS+VSB | 41,500 | 13.0 | 41,000 | 8.0 | 23,400 | 1,305 | 0.085 (1) |
| 048K | 060(C,U)-C+VSB | 48,000 | 13.0 | 47,500 | 8.0 | 27,000 | 1,530 | 0.093 |

| Model Number FT3BC- | Model Number B3VM- | Cooling Capacity (Btu/h) | SEER Rating | Heating Capacity (Btu/h) @ 47° | HSPF | Heating Capacity (Btu/h) @ 17° | Nominal Airflow (SCFM) | Indoor Orifice Size (in) |
|------------------------|-----------------------|--------------------------------|----------------|--------------------------------------|------|--------------------------------------|------------------------------|--------------------------------|
| 018KA | 030(C,U)-A/B | 17,800 | 13.0 | 17,400 | 8.1 | 10,400 | 720 | 0.053 (1) |
| 024K | 036K-B | 24,600 | 13.0 | 22,200 | 7.7 | 12,500 | 720 | 0.065 (1) |
| 030K | 036K-B | 29,000 | 13.0 | 28,000 | 7.7 | 14,600 | 885 | 0.067 |
| 036K | 048K-B+LLS | 35,000 | 13.0 | 34,400 | 8.0 | 20,000 | 1,100 | 0.077 (1) |
| 042K | 048K-B | 41,000 | 13.0 | 39,500 | 7.9 | 19,700 | 1,315 | 0.085 (1) |
| 048K | 060K-C | 48,000 | 13.0 | 48,000 | 7.6 | 27,400 | 1,600 | 0.093 |

See the current ARI Directory for certified combinations and ratings.

(1) Field supplied.

(2) Available as C3BH multi-position

LLS = Liquid Line Solenoid

TDR = Time Delay Relay

VSB = Variable Speed Blower



CERTIFICATION APPLIES ONLY
WHEN THE COMPLETE
SYSTEM IS LISTED
WITH ARI

We Encourage
Professionalism



Through Technician
Certification by NATE

942A-0604 (Replaces 942A-0902)