# Sinclair XF Series PSC Air Handler

Multi-Position

Cooling capacity: 18-60 kBtu/h



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## Standard Features:

- High heat-transfer efficiency and low static-pressure drop A-shaped coil.
- Foil-faced insulation to prevent energy loss through the cabinet.
- Factory-sealed cabinet certified to achieve 2% or less air leakage rate at 1.0 inch water column.
- Multi-stage blower Speed Control to align with varying capacity demands.
- 4-position installation: Upflow, Horizontal Right, Downflow, Horizontal Left.
- Horizontal and vertical condensate drain pans standard, primary and secondary condensate fittings.
- Field-installed electric heater kits 5, 7.5, 10, 15, 20 kW available as accessories.
  Multiple electrical entry locations.
- Dual front panel, volute and coil with slide track, TXV with threaded connection for easy maintenance.
- Integrated filter rack with toolless door access.
- Easy-to-braze copper evaporator connection.
- TXV designed for easy piston replacement.
- All-aluminum heat exchanger extends product lifetime.
- Advanced internal welding process to reduce potential corrosion.
- AHRI and ETL listed.
- Polymer condensate drain pan with UVC inhibitor to extends product lifetime.
- Fully-insulated cabinet design.
- R454B refrigerant sensor ensures safe operation.
- R454B refrigerant sensor is factory-installed, making unit suitable for more room types and applications.

# Sinclair XF Series Air Handler

## 1 Product lineup

| Model | AHU018145MPSNCXF454B<br>AHU024175MPSNCXF454B<br>AHU036175MPSNCXF454B<br>AHU048021MPSNCXF454B<br>AHU060021MPSNCXF454B |
|---|---|
| Power supply | 208/230V-1ph-60Hz |
| Appearance |  |

## 2 Nomenclature

| AHU | 018 | 145 | M | P | SNC | XF | 454B |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

| Legend | | |
|---|---|---|
| **No.** | **Code** | **Remarks** |
| 1 | AHU | Line: Air Handler |
| 2 | 018 | Capacity: 018 = 18k BTU; 024 = 24k BTU; 036 = 36k BTU; 048 = 48k BTU; 060 = 60k BTU |
| 3 | 145 | Cabinet: 145 = 18-1/8”; 175 = 19-5/8”; 021 = 22”; 245 = 24.5<br>***Model Number Nomenclature Interpreted to closest industry Standard*** |
| 4 | M | Position: Multi-Position |
| 4 | P | Fan: PSC |
| 5 | SNC | Brand: Sinclair |
| 6 | XF | Series: XF |
| 7 | 454B | Refrigerant: 454B |

## 3 Specifications

| | AHU018145MPSNCXF454B | AHU024175MPSNCXF454B | AHU036175MPSNCXF454B |
|---|---|---|---|
| **NOMINAL RATING** | | | |
| Cooling (BTU/h) | 18000 | 23000 | 34200 |
| CFM (High/Low range) | 600 | 900 | 1200 |
| External Static Pressure (in.w.c) [Pa] | 0.58 [145] | 0.58 [145] | 0.58 [145] |
| **ELECTRICAL DATA** | | | |
| Voltage / Phase(60Hz) | 208V/230V-1ph-60Hz | 208V/230V-1ph-60Hz | 208V/230V-1ph-60Hz |
| Min. / Max. Voltage (V) | 187/253 | 187/253 | 187/253 |
| Min. Circuit Amps (MCA) (A) | 1.8 | 2.5 | 3.3 |
| Max. Overcurrent Protection (MOP) (A) | 15 | 15 | 15 |
| **FAN MOTOR** | | | |
| Motor Type | PSC | PSC | PSC |
| Capacitor (uF) | 6 | 10 | 15 |
| Horsepower (HP) | 1/5 | 1/5 | 1/3 |
| Rated RPM | 755 | 820 | 980 |
| Full Load Amps (FLA) (A) | 1.4 | 2.0 | 2.6 |
| **FAN BLOWER** | | | |
| Material | Metal | Metal | Metal |
| Type | Centrifugal | Centrifugal | Centrifugal |
| Diameter(in.) [mm] | 10 [278.5] | 10 [278.5] | 10 [278.5] |
| Height(in.) [mm] | 8 [207] | 10 [271] | 10 [271] |
| Coil Drain Connection FPT (in.) | 3/4 | 3/4 | 3/4 |
| **EVAPORATOR COIL** | | | |
| Type | Aluminum-Hydrophilic Aluminum | Aluminum-Hydrophilic Aluminum | Aluminum-Hydrophilic Aluminum |
| Tube Material | Aluminum | Aluminum | Aluminum |
| Tube Size (in.) | 9/32 | 9/32 | 9/32 |
| **SOUND POWER (dB)** | 65 | 67 | 70 |
| **REFRIGERANT CONNECTION SIZE** | | | |
| Liquid Line Size (O.D.) (in.) | 3/8 | 3/8 | 3/8 |
| Suction Line Size (O.D.) (in.) | 3/4 | 3/4 | 3/4 |
| **DIMENSIONS** | | | |
| Width (In.) [mm] | 18-1/8 [460] | 19-5/8 [500] | 19-5/8 [500] |
| Height (In.) [mm] | 41-3/8 [1050] | 46-1/2 [1180] | 46-1/2 [1180] |
| Depth (In.) [mm] | 20-1/2 [520] | 21-5/8 [550] | 21-5/8 [550] |
| packaging dimension (W × H × D) (In.) [mm] | 20-3/4 × 42 × 24-3/16 [527 × 1067 × 614] | 22-5/16 × 47-1/8 × 25-3/8 [567 × 1197 × 644] | 22-5/16 × 47-1/8 × 25-3/8 [567 × 1197 × 644] |
| **Service Valve** | | | |
| Liquid (in.) | 3/8 | 3/8 | 3/8 |
| Suction (in.) | 3/4 | 3/4 | 3/4 |
| **Weight** | | | |
| Net weight (lbs.) [kg] | 109 [49] | 130 [59] | 130 [59] |
| Shipping weight (lbs.) [kg] | 118 [54] | 141 [64] | 141 [64] |

# Sinclair XF Series Air Handler

| | AHU048021MPSNCXF454B | AHU060021MPSNCXF454B |
|---|---|---|
| **NOMINAL RATING** | | |
| Cooling (BTU/h) | 45000 | 54000 |
| CFM (High/Low range) | 1400 | 1650 |
| External Static Pressure (in.w.c) [Pa] | 0.58 [145] | 0.58 [145] |
| **ELECTRICAL DATA** | | |
| Voltage / Phase(60Hz) | 208V/230V-1ph-60Hz | 208V/230V-1ph-60Hz |
| Min. / Max. Voltage (V) | 187/253 | 187/253 |
| Min. Circuit Amps (MCA) (A) | 4.3 | 5.0 |
| Max. Overcurrent Protection (MOP) (A) | 15 | 15 |
| **FAN MOTOR** | | |
| Motor Type | PSC | PSC |
| Capacitor (uF) | 20 | 20 |
| Horsepower (HP) | 1/2 | 1/2 |
| Rated RPM | 900 | 980 |
| Full Load Amps (FLA) (A) | 3.4 | 4.0 |
| **FAN BLOWER** | | |
| Material | Metal | Metal |
| Type | Centrifugal | Centrifugal |
| Diameter(in.) [mm] | 10 [278.5] | 10 [278.5] |
| Height(in.) [mm] | 10 [271] | 10 [271] |
| Coil Drain Connection FPT (in.) | 3/4 | 3/4 |
| **EVAPORATOR COIL** | | |
| Type | Aluminum-Hydrophilic Aluminum | Aluminum-Hydrophilic Aluminum |
| Tube Material | Aluminum | Aluminum |
| Tube Size (in.) | 9/32 | 9/32 |
| **SOUND POWER (dB)** | 71 | 73 |
| **REFRIGERANT CONNECTION SIZE** | | |
| Liquid Line Size (O.D.) (in.) | 3/8 | 3/8 |
| Suction Line Size (O.D.) (in.) | 7/8 | 7/8 |
| **DIMENSIONS** | | |
| Width (In.) [mm] | 22 [560] | 22 [560] |
| Height (In.) [mm] | 51-1/2 [1385] | 51-1/2 [1385] |
| Depth (In.) [mm] | 24 [610] | 24 [610] |
| packaging dimension (W × H × D) (In.) [mm] | 24-11/16 × 55-3/16 × 27-11/16 [627 × 1402 × 704] | 24-11/16 × 55-3/16 × 27-11/16 [627 × 1402 × 704] |
| **SERVICE VALVE** | | |
| Liquid (in.) | 3/8 | 3/8 |
| Suction (in.) | 7/8 | 7/8 |
| **WEIGHT** | | |
| Net weight (lbs.) [kg] | 157 [71] | 163[74] |
| Shipping weight (lbs.) [kg] | 172 [78] | 179[81] |

## 4 Dimensional Drawing




| Model Size | Unit Height "H" in. [mm] | Unit Width "W" in. [mm] | Unit Length "D" in. [mm] | Supply Duct "A" | Unit Weight (lbs.[kg]) |
|---|---|---|---|---|---|
| **18** | 41-3/8 [1050] | 18-1/8 [460] | 20-1/2 [520] | 16 [406] | 109 [49] |
| **24** | 46-1/2 [1180] | 19-5/8 [500] | 21-5/8 [550] | 18 [456] | 130 [59] |
| **36** | 46-1/2 [1180] | 19-5/8 [500] | 21-5/8 [550] | 18 [456] | 130 [59] |
| **48** | 54-1/2 [1385] | 22 [560] | 24 [610] | 19-1/2 [496] | 157 [71] |
| **60** | 54-1/2 [1385] | 22 [560] | 24 [610] | 19-1/2 [496] | 163 [74] |

## 5 Electrical Characteristics

**Electric Heater Kit Breaker Information**

| NO. | Kit | Description | Breaker | Ref. Air Handler Use |
|---|---|---|---|---|
| 1 | EHK05 | 5kW Heater | Max. 240V, 30A, 2P | 18, 24, 36, 48, 60 |
| 2 | EHK07 | 7.5kW Heater | Max. 240V, 50A, 2P | 18, 24, 36, 48, 60 |
| 3 | EHK10 | 10kW Heater | Max. 240V, 60A, 2P | 18, 24, 36, 48, 60 |
| 4 | EHK15 | 15kW Heater, double breaker panel | Max. 240V, 60A, 2P<br>Max. 240V, 30A, 2P | 36, 48, 60 |
| 5 | EHK20 | 20kW Heater, double breaker panel | Max. 240V, 60A, 2P | 36, 48, 60 |

**Electric Heater Kit Electrical Data (only Electric Heat)**

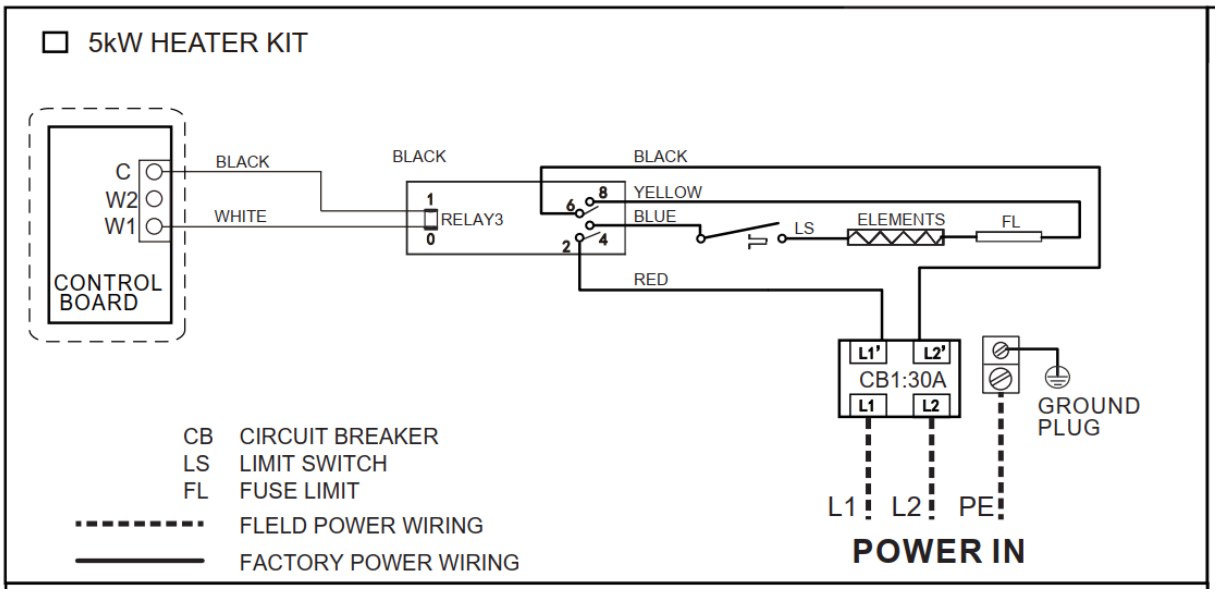
| Heater Kit Model Used | Air Handler Model | Electric Heat(kW) | Min. Circuit Ampacity (A) | | Max. Fuse or Breaker (HACR)Ampacity (A) | | Minimum Heating Blower Speed | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 240V | 208V | 240V | 208V | Low | Medium | High |
| EHK05 | 18 | 5 | 26.1 | 22.6 | 30 | 25 | ● | ● | ● |
| EHK07 | | 7.5 | 39.1 | 33.9 | 40 | 35 | ● | ● | ● |
| EHK10 | | 10 | 52.1 | 45.2 | 60 | 50 | -- | ● | ● |
| EHK05 | 24 | 5 | 26.1 | 22.6 | 30 | 25 | ● | ● | ● |
| EHK07 | | 7.5 | 39.1 | 33.9 | 40 | 35 | ● | ● | ● |
| EHK10 | | 10 | 52.1 | 45.2 | 60 | 50 | ● | ● | ● |
| EHK05 | 36 | 5 | 26.1 | 22.6 | 30 | 25 | ● | ● | ● |
| EHK07 | | 7.5 | 39.1 | 33.9 | 40 | 35 | ● | ● | ● |
| EHK10 | | 10 | 52.1 | 45.2 | 60 | 50 | ● | ● | ● |
| EHK15 | | 15 | 52.1/26.1 | 45.2/22.6 | 60/30 | 50/25 | ● | ● | ● |
| EHK20 | | 20 | 52.1/52.1 | 45.2/45.2 | 60/60 | 60/50 | ● | ● | ● |
| EHK05 | 48 | 5 | 26.1 | 22.6 | 30 | 25 | -- | -- | ● |
| EHK07 | | 7.5 | 39.1 | 33.9 | 40 | 35 | -- | -- | ● |
| EHK10 | | 10 | 52.1 | 45.2 | 60 | 50 | -- | -- | ● |
| EHK15 | | 15 | 52.1/26.1 | 45.2/22.6 | 60/30 | 50/25 | -- | -- | ● |
| EHK20 | | 20 | 52.1/52.1 | 45.2/45.2 | 60/60 | 60/50 | -- | -- | ● |
| EHK05 | 60 | 5 | 26.1 | 22.6 | 30 | 25 | ● | ● | ● |
| EHK07 | | 7.5 | 39.1 | 33.9 | 40 | 35 | ● | ● | ● |
| EHK10 | | 10 | 52.1 | 45.2 | 60 | 50 | ● | ● | ● |
| EHK15 | | 15 | 52.1/26.1 | 45.2/22.6 | 60/30 | 50/25 | ● | ● | ● |
| EHK20 | | 20 | 52.1/52.1 | 45.2/45.2 | 60/60 | 60/50 | ● | ● | ● |

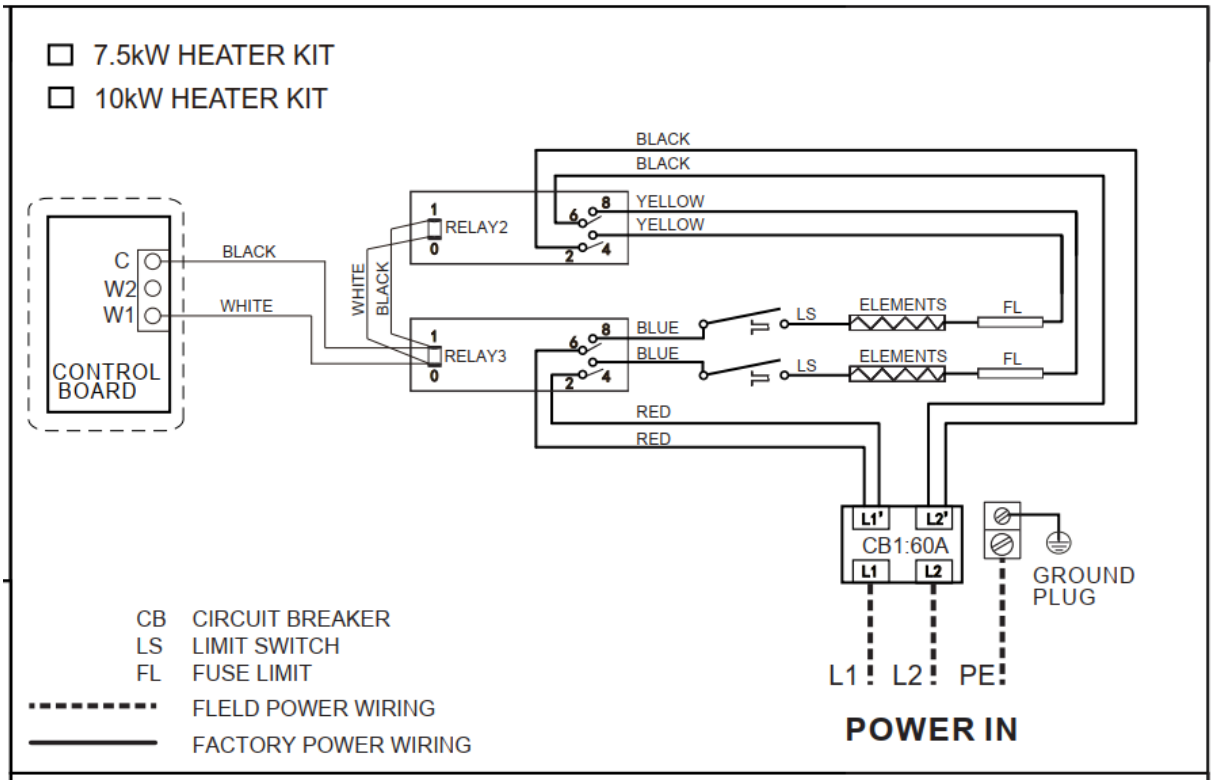
**Electric Heater Kit Electrical Data (Electric Heat combines with Indoor motor)**

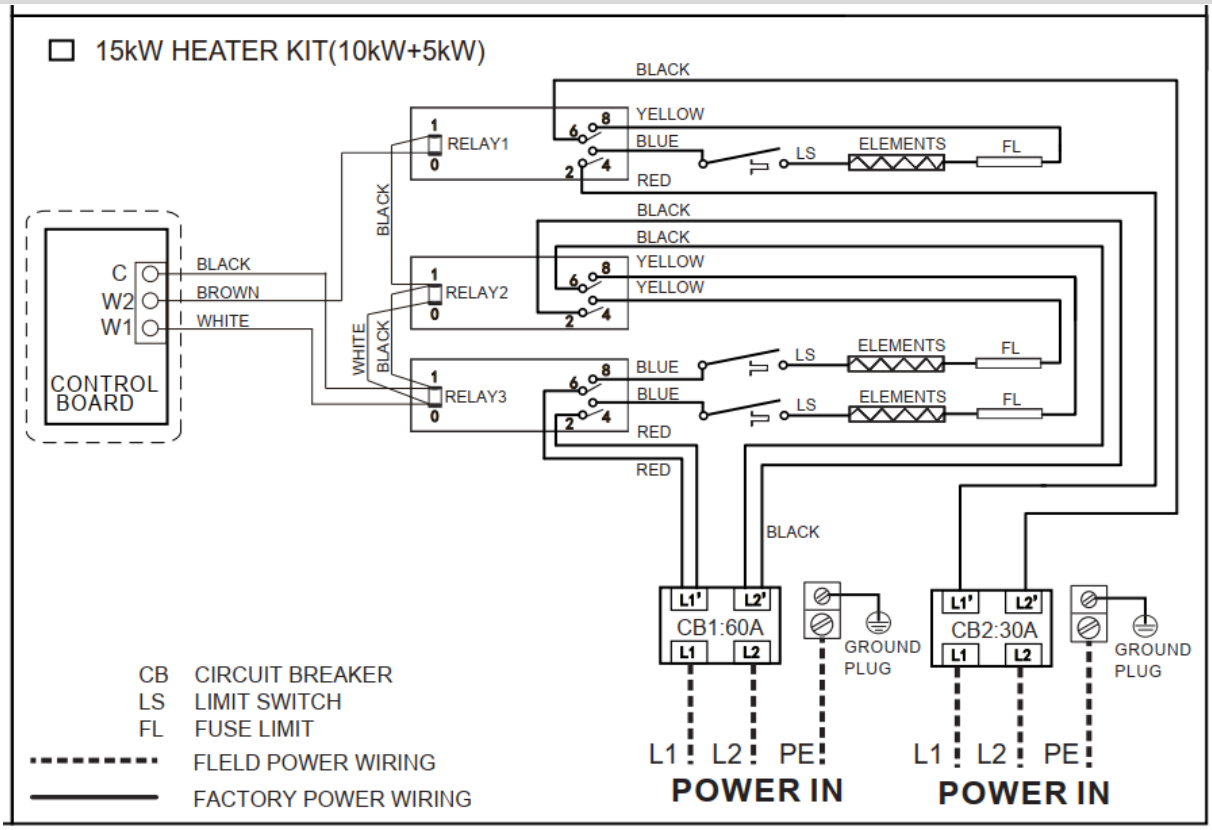
| Heater Kit Model Used | Air Handler Model | Electric Heat(kW) | Min. Circuit Ampacity (A) | | Max. Fuse or Breaker (HACR)Ampacity (A) | | Minimum Heating Blower Speed | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 240V | 208V | 240V | 208V | Low | Medium | High |
| EHK05 | 18 | 5 | 27.5 | 24 | 30 | 25 | ● | ● | ● |
| EHK07 | | 7.5 | 40.5 | 35.3 | 45 | 40 | ● | ● | ● |
| EHK10 | | 10 | 53.5 | 46.6 | 60 | 50 | -- | ● | ● |
| EHK05 | 24 | 5 | 28.1 | 24.6 | 30 | 25 | ● | ● | ● |
| EHK07 | | 7.5 | 41.1 | 35.9 | 45 | 40 | ● | ● | ● |
| EHK10 | | 10 | 54.1 | 47.2 | 60 | 50 | ● | ● | ● |
| EHK05 | 36 | 5 | 28.7 | 25.2 | 30 | 30 | ● | ● | ● |
| EHK07 | | 7.5 | 41.7 | 36.5 | 45 | 40 | ● | ● | ● |
| EHK10 | | 10 | 54.7 | 47.8 | 60 | 50 | ● | ● | ● |
| EHK15 | | 15 | 54.7/26.1 | 47.8/22.6 | 60/30 | 50/25 | ● | ● | ● |
| EHK20 | | 20 | 54.7/52.1 | 47.8/45.2 | 60/60 | 50/50 | ● | ● | ● |
| EHK05 | 48 | 5 | 29.5 | 26 | 30 | 30 | -- | -- | ● |
| EHK07 | | 7.5 | 42.5 | 37.3 | 45 | 40 | -- | -- | ● |
| EHK10 | | 10 | 55.5 | 48.6 | 60 | 50 | -- | -- | ● |
| EHK15 | | 15 | 55.5/26.1 | 48.6/22.6 | 60/30 | 50/25 | -- | -- | ● |
| EHK20 | | 20 | 55.5/52.1 | 48.6/45.2 | 60/60 | 50/50 | -- | -- | ● |
| EHK05 | 60 | 5 | 30.1 | 26.6 | 35 | 30 | ● | ● | ● |
| EHK07 | | 7.5 | 43.1 | 37.9 | 45 | 40 | ● | ● | ● |
| EHK10 | | 10 | 56.1 | 49.2 | 60 | 50 | ● | ● | ● |
| EHK15 | | 15 | 56.1/26.1 | 49.2/22.6 | 60/30 | 50/25 | ● | ● | ● |
| EHK20 | | 20 | 56.1/52.1 | 49.2/45.2 | 60/60 | 50/50 | ● | ● | ● |

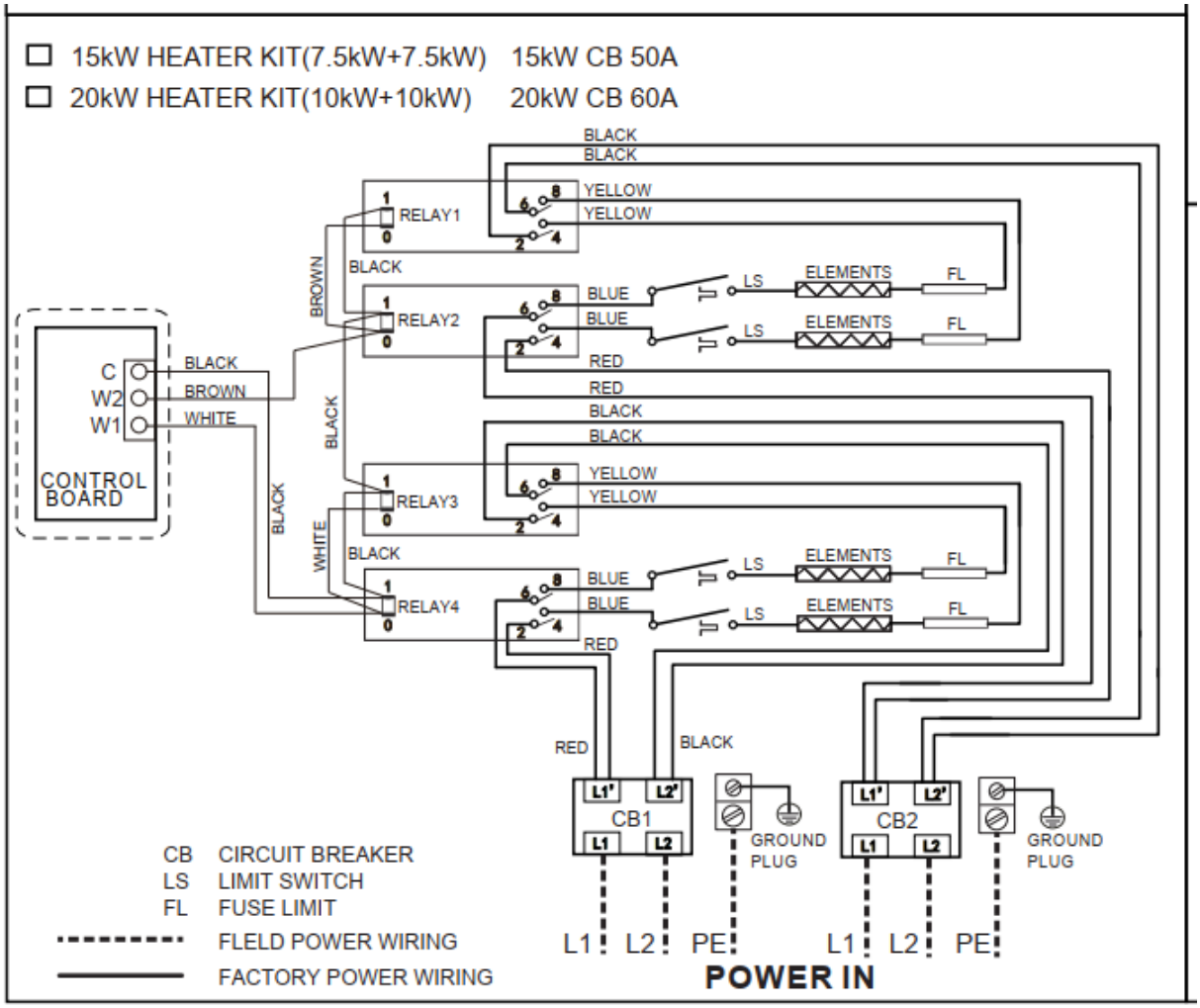
# Sinclair XF Series Air Handler

**Electric Heater Power Wiring Diagrams**




15kW HEATER KIT(10kW+5kW)
CONTROL BOARD
C
W2
W1
BLACK
BROWN
WHITE
RELAY1
RELAY2
RELAY3
YELLOW
BLUE
RED
LS
ELEMENTS
FL
CB1:60A
CB2:30A
GROUND PLUG
L1
L2
PE
POWER IN
CB CIRCUIT BREAKER
LS LIMIT SWITCH
FL FUSE LIMIT
FLELD POWER WIRING
FACTORY POWER WIRING


15kW HEATER KIT(7.5kW+7.5kW) 15kW CB 50A
20kW HEATER KIT(10kW+10kW) 20kW CB 60A
CONTROL BOARD
C
W2
W1
BLACK
BROWN
WHITE
RELAY1
RELAY2
RELAY3
RELAY4
YELLOW
BLUE
RED
LS
ELEMENTS
FL
CB1
CB2
GROUND PLUG
L1
L2
PE
POWER IN
CB CIRCUIT BREAKER
LS LIMIT SWITCH
FL FUSE LIMIT
FLELD POWER WIRING
FACTORY POWER WIRING

## 6 Airflow Data

| Model Number | Outdoor Unit Size（Ton） | Motor Speed | | CFM Wet Coil Without Filter and Electric Heat | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | External Static Pressure (in w.c) | | | | | | | | |
| | | | | 0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |
| 18 | 1.5 | Low | Current / A | 0.90 | 0.89 | 0.87 | 0.85 | 0.83 | 0.81 | 0.79 | 0.75 | 0.7 |
| | | | Power / W | 207 | 203 | 198 | 191 | 187 | 182 | 173 | 162 | 151 |
| | | | CFM | 649 | 618 | 586 | 548 | 509 | 467 | 420 | 350 | 283 |
| | | Medium | Current / A | 1.04 | 1.01 | 0.99 | 0.97 | 0.94 | 0.92 | 0.89 | 0.87 | 0.82 |
| | | | Power / W | 243 | 236 | 230 | 224 | 218 | 210 | 204 | 198 | 184 |
| | | | CFM | 815 | 796 | 758 | 720 | 677 | 624 | 573 | 522 | 421 |
| | | High | Current / A | 1.34 | 1.31 | 1.28 | 1.25 | 1.22 | 1.19 | 1.15 | 1.12 | 1.09 |
| | | | Power / W | 313 | 305 | 297 | 289 | 280 | 270 | 259 | 250 | 242 |
| | | | CFM | 945 | 933 | 897 | 855 | 811 | 757 | 692 | 633 | 566 |
| 24 | 2 | Low | Current / A | 1.28 | 1.25 | 1.23 | 1.20 | 1.17 | 1.14 | 1.11 | 1.08 | 1.0 |
| | | | Power / W | 289 | 281 | 274 | 265 | 253 | 244 | 234 | 223 | 206 |
| | | | CFM | 1081 | 1028 | 977 | 909 | 796 | 714 | 628 | 539 | 407 |
| | | Medium | Current / A | 1.37 | 1.35 | 1.33 | 1.32 | 1.28 | 1.24 | 1.21 | 1.17 | 1.14 |
| | | | Power / W | 315 | 309 | 303 | 297 | 287 | 274 | 263 | 252 | 242 |
| | | | CFM | 1231 | 1176 | 1122 | 1068 | 976 | 851 | 757 | 659 | 552 |
| | | High | Current / A | 1.88 | 1.84 | 1.8 | 1.77 | 1.74 | 1.7 | 1.64 | 1.59 | 1.55 |
| | | | Power / W | 423 | 409 | 399 | 389 | 380 | 364 | 344 | 329 | 314 |
| | | | CFM | 1434 | 1371 | 1311 | 1249 | 1185 | 1081 | 922 | 807 | 689 |
| 36 | 3 | Low | Current / A | 1.53 | 1.53 | 1.52 | 1.50 | 1.48 | 1.45 | 1.43 | 1.40 | / |
| | | | Power / W | 323 | 319 | 314 | 307 | 294 | 281 | 268 | 251 | / |
| | | | CFM | 1091 | 1048 | 1001 | 947 | 851 | 764 | 677 | 571 | / |
| | | Medium | Current / A | 1.72 | 1.71 | 1.7 | 1.68 | 1.67 | 1.64 | 1.62 | 1.59 | / |
| | | | Power / W | 368 | 361 | 354 | 348 | 339 | 325 | 312 | 297 | / |
| | | | CFM | 1335 | 1286 | 1230 | 1172 | 1103 | 986 | 866 | 752 | / |
| | | High | Current / A | 2.27 | 2.26 | 2.24 | 2.22 | 2.21 | 2.18 | 2.15 | 2.12 | / |
| | | | Power / W | 473 | 462 | 452 | 442 | 430 | 419 | 399 | 383 | / |
| | | | CFM | 1526 | 1467 | 1403 | 1335 | 1259 | 1181 | 1030 | 913 | / |
| 48 | 4 | Low | Current / A | 2.30 | 2.25 | 2.21 | 2.18 | 2.14 | 2.10 | 2.05 | 1.92 | 1.85 |
| | | | Power / W | 491 | 472 | 456 | 442 | 430 | 417 | 399 | 351 | 328 |
| | | | CFM | 1496 | 1441 | 1383 | 1326 | 1273 | 1214 | 1137 | 872 | 746 |
| | | Medium | Current / A | 2.56 | 2.52 | 2.48 | 2.44 | 2.40 | 2.37 | 2.33 | 2.28 | 2.12 |
| | | | Power / W | 562 | 548 | 535 | 523 | 509 | 497 | 482 | 465 | 410 |
| | | | CFM | 1798 | 1731 | 1660 | 1597 | 1529 | 1452 | 1376 | 1283 | 921 |
| | | High | Current / A | 3.30 | 3.25 | 3.20 | 3.15 | 3.10 | 3.05 | 3.00 | 2.95 | 2.88 |
| | | | Power / W | 704 | 689 | 673 | 656 | 640 | 624 | 610 | 593 | 570 |
| | | | CFM | 1970 | 1896 | 1819 | 1737 | 1662 | 1580 | 1501 | 1411 | 1291 |
| 60 | 5 | Low | Current / A | 3.09 | 2.95 | 2.87 | 2.81 | 2.73 | 2.66 | 2.58 | 2.48 | 2.2 |
| | | | Power / W | 716 | 682 | 662 | 647 | 627 | 610 | 590 | 565 | 495 |
| | | | CFM | 1872 | 1802 | 1747 | 1687 | 1628 | 1567 | 1500 | 1416 | 1140 |
| | | Medium | Current / A | 1.15 | 1.08 | 1.01 | 0.95 | 0.88 | 0.82 | 0.94 | 0.85 | 0.97 |
| | | | Power / W | 751 | 729 | 711 | 694 | 675 | 657 | 638 | 617 | 592 |
| | | | CFM | 2080 | 2012 | 1948 | 1886 | 1821 | 1753 | 1684 | 1604 | 1505 |
| | | High | Current / A | 3.70 | 3.60 | 3.53 | 3.42 | 3.34 | 3.26 | 3.17 | 3.08 | 2.99 |
| | | | Power / W | 858 | 833 | 817 | 792 | 771 | 751 | 731 | 710 | 687 |
| | | | CFM | 2198 | 2120 | 2068 | 1979 | 1908 | 1836 | 1760 | 1677 | 1584 |

--- Shaded boxes represent airflow outside the required 300 to 450 cfm/ton, which are not recommended.

NOTES: Airflow based upon cooling performance at 230V with no electric heat or filter. Airflow at 208V is approximately the same as 230V because the multi-tap ECM motor provides constant torque with no drop off relative to motor operating speed.

The air distribution system has the greatest effect on airflow and is in the control of the installing contractor. For this reason, the contractor should use only industry-recognized procedures.

Heat pump systems require a specified airflow for electric heat operating. Each ton of cooling requires between 350 and 450 cubic feet of air per minute (CFM), or 400 CFM nominally.

Duct design and construction should be carefully done. System performance can be lowered dramatically through poor planning or workmanship.

Air supply diffusers must be selected and located carefully. They must be sized and positioned to deliver treated air along the perimeter of the space. If they are too small for their intended airflow, they would become noisy. If they are not located properly, they cause drafts. Return air grilles must be properly sized to carry air back to the blower. If they are too small, they also can cause noise.

Installers should balance the air distribution system to ensure sufficient, quiet airflow to all spaces to ensure maximum occupant comfort.

An air velocity meter or airflow hood can be used to balance and verify branch and system airflow (CFM).

**IMPORTANT:**

1. If unit is converted to downflow, the airflow for model 18 must be between 350 and 450 cfm/ton.
2. When model 42 used for a mobile home, air volume should not be less than 1335 CFM.
3. When model 48 used for a mobile home, air volume should not t less than 1584 CFM.

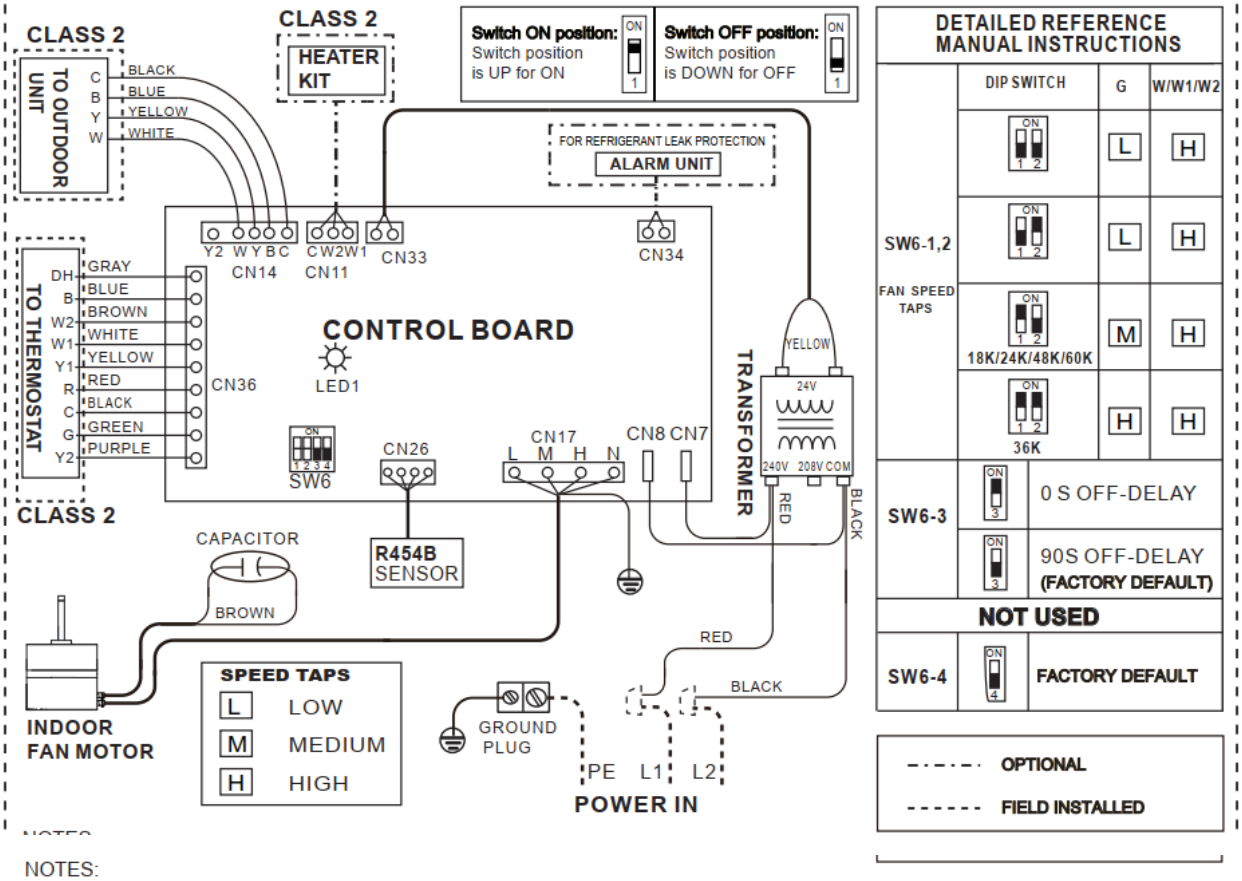
## 7 Attached Fittings

| | Name | Appearance | Quantity | Name | Appearance | Quantity |
|---|---|---|---|---|---|---|
| Installation Fittings | Indoor unit operation and installation manual |  | 1 | Sealing ring |  | 3 |
| | Accessory package |  | 1 | Alarm output wires |  | 1 |
| | Seal plug |  | 2 | Pipe Joint |  | 1 |
| | Hook |  | 1 | | | |

Note：The above applies to most models however the list of included items may vary from model to model.

Before installation, confirm all the items above are present. Retain all these accessories for future use (if necessary). All fittings should be OEM factory fittings.

## 8 Wiring Diagram




NOTES:

1: Connect R to R, G to G, Y to Y, etc. See outdoor instruction for details.

2: If some signal lines of **CN36** are not used, please wrap them up separately with **CAP**.

⚠ CAUTION:

1: Use copper wire (75 ℃ min) only between disconnect switch and unit.

2: To be wired in accordance with **NEC** and local codes.

3: If any of the original wires, as supplied, must be replaced. Use the same or equivalent type wires.

4: If the input voltage is 208 V, please change the transformer tap by taking the red wire to **208V** terminal.

5: The rated operating condition of **Alarm** is 24 VAC/1A or 30 VDC/1A or 250 VAC/1A. Please refer to the manual for wiring methods.

| LED1 STATUS | CONTENT |
|---|---|
| STEADY ON | NORMAL OPERATION |
| OFF | POWER SUPPLY FAILURE |
| KEEP FLASHING | REFRIGERANT LEAK PROTECTION |
| 3 FLASH/CYCLE | **R454B** REFRIGERANT SENSOR FAULT |
| 4 FLASH/CYCLE | **R454B** REFRIGERANT SENSOR COMMUNICATION FAULT |
| 8 FLASH/CYCLE | **R454B** SENSOR OVER SERVICE LIFE |

| Factory code | Date | Revision |
|---|---|---|
| 16023000014749 | Mar. 20th, 2024 | D |