



Air Conditioning & Heating

PRODUCT SPECIFICATIONS



1½ TO 2½ TON

ACNF SERIES

CEILING-MOUNT

AIR HANDLERS

The Goodman® ACNF Electric Heat Air Handler is designed to be ceiling-mounted. Its quiet operation and high performance makes the ACNF series a good choice for multi-family or lodging applications.

Standard Features

- Suitable for use with refrigerants R-410A (-16 models only) and R-22 (-16 & -1 models)
- Check flowrate for heat pump and cooling-only applications
- Direct-drive, resilient-mount, multi-speed motor
- Sequence-controlled and rust-resistant nickel chromium heating elements of 5, 6, 8 and 10 kW
- High-efficiency evaporator coil
- Quiet operation
- Available with and without heat
- ARI Certified
- ETL Certified

Cabinet Features

- Primary/secondary drain connection in a high-temperature plastic drain pan
- Suitable for free-return installation (non-ducted return air)
- Galvanized-steel construction
- Factory-installed pull-type disconnect
- Easy service access

Accessories

- Heat Pump Shut-off Relay Kit: HPSK-01
- Ceiling Access Panels:
CAP-1/ 1L (louvered) fits ACNF18
CAP-2/ 2L (louvered) fits ACNF24
CAP-3/ 3L (louvered) fits ACNF30



NOMENCLATURE

| | A | C | N | F | 3642 | 1 | 6 | AA |
|---------------------------------------|----------|----------|----------|----------|---|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | 5,6,7,8 | 9 | 10 | 11,12 |
| Brand | | | | | | | | |
| A Single-piece Air Handler | | | | | | | | |
| Unit Application | | | | | | | | |
| C Ceiling Mount PSC Motor | | | | | | | | |
| D Downflow PSC Motor | | | | | | | | |
| E Multi-Position Variable-Speed Motor | | | | | | | | |
| R Multi-Position PSC Motor | | | | | | | | |
| S Multi-Position EEM Motor | | | | | | | | |
| W Wall Mount PSC Motor | | | | | | | | |
| Cabinet Finish | | | | | | | | |
| U Unpainted | | | | | | | | |
| P Painted | | | | | | | | |
| N Uncased | | | | | | | | |
| Expansion Device | | | | | | | | |
| F Flowrater | | | | | | | | |
| T Expansion Valve | | | | | | | | |
| | | | | | Engineering * | | | |
| | | | | | Major/ Minor Revisions | | | |
| | | | | | * Not used for inventory management | | | |
| | | | | | Refrigerant Compatability | | | |
| | | | | | No Digit = R-22 only | | | |
| | | | | | 6 = R-410A or R-22 | | | |
| | | | | | Electrical | | | |
| | | | | | 1 208/240 V, 1 Phase, 60 Hz | | | |
| | | | | | Nominal Capacity Range @ 13 SEER | | | |
| | | | | | & Nominal Factory-Installed Electric Heat kW | | | |
| | | | | | 1805 1½ Tons Cooling/ 5 kW Electric Heat | | | |
| | | | | | 2405 2 Tons Cooling/ 5 kW Electric Heat | | | |

SPECIFICATIONS

| | ACNF 18001/16 | ACNF 18051/16 | ACNF 18061/16 | ACNF 18081/16 | ACNF 24001/16 | ACNF 24051/16 | ACNF 24061/16 |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Blower | | | | | | | |
| Diameter | 5.75 | 5.75 | 5.75 | 5.75 | 6.31 | 6.31 | 6.31 |
| Width | 6.75 | 6.75 | 6.75 | 6.75 | 8.25 | 8.25 | 8.25 |
| Coil Drain Connection FPT | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Service Valve | | | | | | | |
| Liquid | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Suction | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Electrical Data | | | | | | | |
| Min Circuit Ampacity @ 230V | 0.9 | 27 | 33.5 | 40.5 | 1.68 | 27.8 | 34.3 |
| Min Circuit Ampacity @ 208V | 0.9 | 24.5 | 30.5 | 36.8 | 1.68 | 25.3 | 31.3 |
| Max. Overcurrent Device @ 230V | 15 | 30 | 40 | 50 | 15 | 30 | 40 |
| Max. Overcurrent Device @ 208V | 15 | 30 | 40 | 40 | 15 | 30 | 40 |
| Minimum VAC | 197 | 197 | 197 | 197 | 197 | 197 | 197 |
| Maximum VAC | 253 | 253 | 253 | 253 | 253 | 253 | 253 |
| Electric Heat | | | | | | | |
| kW @ 230 Volts | 0 | 4.8 | 6.0 | 7.3 | 0 | 4.8 | 6.0 |
| BTU/h @ 230 Volts | 0 | 16,392 | 20,490 | 24,930 | 0 | 16,392 | 20,490 |
| Blower Motor | | | | | | | |
| FLA | 0.72 | 0.72 | 0.72 | 0.72 | 1.34 | 1.34 | 1.34 |
| HP | 1/8 | 1/8 | 1/8 | 1/8 | 1/4 | 1/4 | 1/4 |
| Ship Weight (lbs) | 59 | 59 | 59 | 59 | 69 | 69 | 69 |

PRODUCT SPECIFICATIONS

SPECIFICATIONS (CONT.)

| | ACNF 24081/16 | ACNF 24101/16 | ACNF 30001/16 | ACNF 30051/16 | ACNF 30061/16 | ACNF 30081/16 | ACNF 30101/16 |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Blower | | | | | | | |
| Diameter | 6.31 | 6.31 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 |
| Width | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 |
| Coil Drain Connection FPT | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Service Valve | | | | | | | |
| Liquid | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Suction | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Electrical Data | | | | | | | |
| Min Circuit Ampacity @ 230V | 41.3 | 54.9 | 1.68 | 27.8 | 34.3 | 41.3 | 54.9 |
| Min Circuit Ampacity @ 208V | 37.6 | 49.8 | 1.68 | 25.3 | 31.3 | 37.6 | 49.8 |
| Max. Overcurrent Device @ 230V | 50 | 60 | 15 | 30 | 40 | 50 | 60 |
| Max. Overcurrent Device @ 208V | 40 | 50 | 15 | 30 | 40 | 40 | 50 |
| Minimum VAC | 197 | 197 | 197 | 197 | 197 | 197 | 197 |
| Maximum VAC | 253 | 253 | 253 | 253 | 253 | 253 | 253 |
| Electric Heat | | | | | | | |
| kW @ 230 Volts | 7.3 | 9.8 | 0 | 4.8 | 6.0 | 7.3 | 9.8 |
| BTU/h @ 230 Volts | 24,930 | 33,467 | 0 | 16,392 | 20,490 | 24,930 | 33,467 |
| Blower Motor | | | | | | | |
| FLA | 1.34 | 1.34 | 1.34 | 1.34 | 1.34 | 1.34 | 1.34 |
| HP | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| Ship Weight (lbs) | 69 | 69 | 79 | 79 | 79 | 79 | 79 |

Note:

When the room thermostat calls for second stage heat, the first stage (heat pump) operation must be locked out. When matching the "AC" unit that has electric heat with a heat pump, order "HEAT PUMP SHUT OFF KIT HPSK-01." The ACXX-00 units do not require this kit.

BLOWER PERFORMANCE

| Model | Speed | CFM delivered against External Static Pressure | | | | |
|--------------|-------|--|------|------|------|------|
| | | 0.1" | 0.2" | 0.3" | 0.4" | 0.5" |
| ACNF18001/16 | High | 780 | 710 | 625 | 520 | 440 |
| | Low | 675 | 585 | 510 | 460 | 400 |
| ACNF18051/16 | High | 780 | 710 | 625 | 520 | 440 |
| | Low | 675 | 585 | 510 | 460 | 400 |
| ACNF18061/16 | High | 780 | 710 | 625 | 520 | 440 |
| | Low | 675 | 585 | 510 | 460 | 400 |
| ACNF18081/16 | High | 780 | 710 | 625 | 520 | 440 |
| | Low | 675 | 585 | 510 | 460 | 400 |
| ACNF24001/16 | High | 935 | 880 | 810 | 735 | 675 |
| | Low | 720 | 680 | 630 | 565 | 490 |
| ACNF24051/16 | High | 935 | 880 | 810 | 735 | 675 |
| | Low | 720 | 680 | 630 | 565 | 490 |
| ACNF24061/16 | High | 935 | 880 | 810 | 735 | 675 |
| | Low | 720 | 680 | 630 | 565 | 490 |

| Model | Speed | CFM delivered against External Static Pressure | | | | |
|--------------|-------|--|-------|------|------|------|
| | | 0.1" | 0.2" | 0.3" | 0.4" | 0.5" |
| ACNF24081/16 | High | 935 | 880 | 810 | 735 | 675 |
| | Low | 720 | 680 | 630 | 565 | 490 |
| ACNF24101/16 | High | 935 | 880 | 810 | 735 | 675 |
| | Low | 720 | 680 | 630 | 565 | 490 |
| ACNF30001/16 | High | 1,075 | 1,015 | 945 | 865 | 770 |
| | Low | 830 | 785 | 720 | 665 | 605 |
| ACNF30051/16 | High | 1,075 | 1,015 | 945 | 865 | 770 |
| | Low | 830 | 785 | 720 | 665 | 605 |
| ACNF30061/16 | High | 1,075 | 1,015 | 945 | 865 | 770 |
| | Low | 830 | 785 | 720 | 665 | 605 |
| ACNF30081/16 | High | 1,075 | 1,015 | 945 | 865 | 770 |
| | Low | 830 | 785 | 720 | 665 | 605 |
| ACNF30101/16 | High | 1,075 | 1,015 | 945 | 865 | 770 |
| | Low | 830 | 785 | 720 | 665 | 605 |

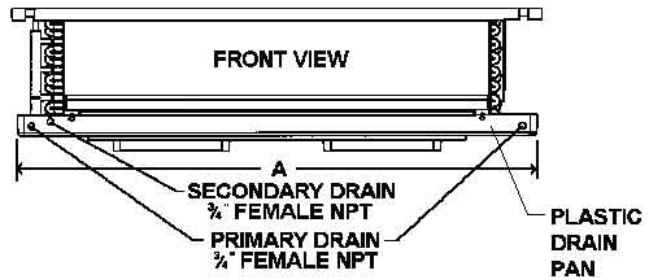
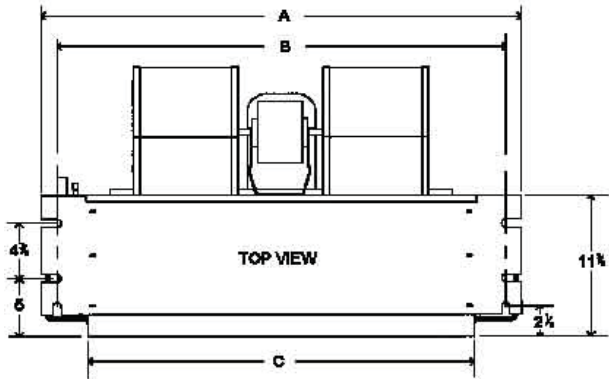
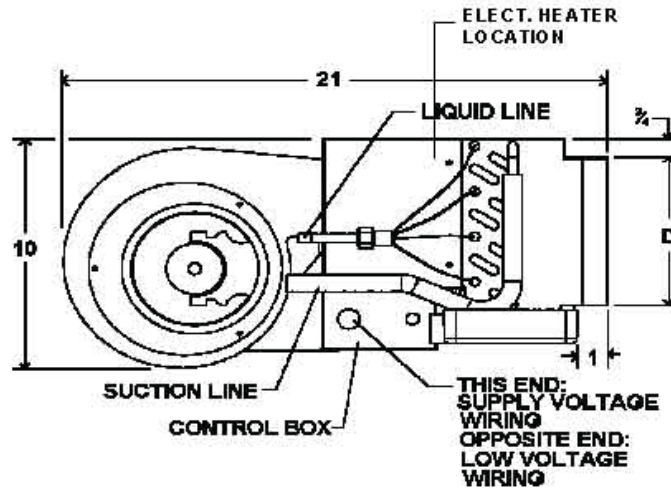
Note: Assumes dry coil with filter in place; 208-volt operation x .96

HEATING CAPACITY/kW CORRECTION FACTOR

| | | | | | |
|-------------------|------|------|-----|-----|-----|
| Supply Voltage | 240 | 230 | 220 | 210 | 208 |
| Correction Factor | 1.08 | 1.00 | .92 | .84 | .82 |

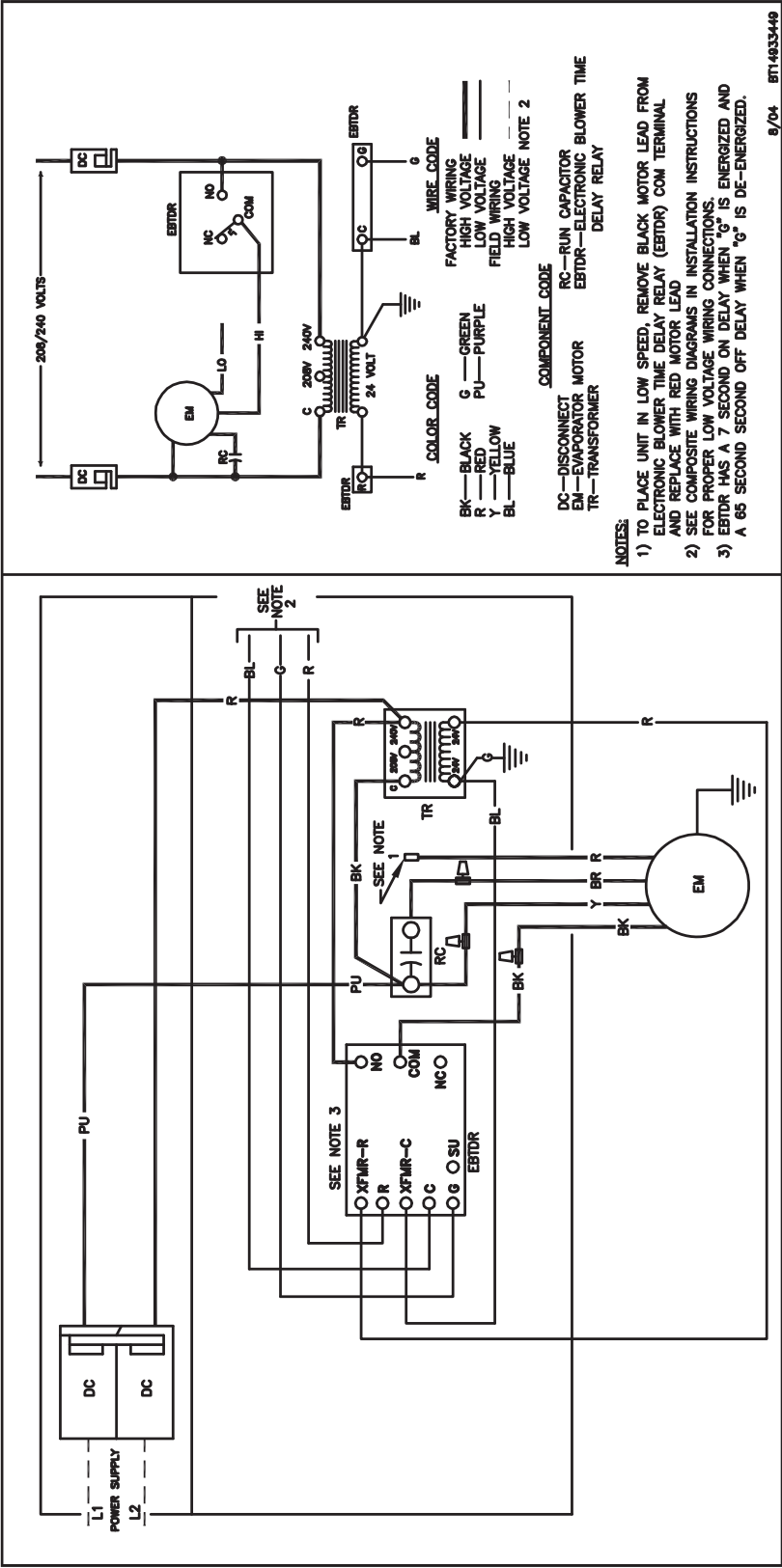
(Multiply the 230-volt capacity by factors)

DIMENSIONS




| Model | A | B | C | D |
|--------|---------|-----------|-----|--------|
| ACNF18 | 37 1/4" | 34 11/16" | 30" | 6 1/2" |
| ACNF24 | 43 1/4" | 40 11/16" | 36" | 6 1/2" |
| ACNF30 | 49 1/4" | 46 11/16" | 42" | 6 1/2" |

ACNF WIRING DIAGRAM




Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date information.



WARNING

High Voltage:
Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.



PRODUCT SPECIFICATIONS

NOTES

