



Air Conditioning & Heating



PRODUCT SPECIFICATIONS

ACNF SERIES

CEILING-MOUNT

AIR HANDLERS

1½ TO 2½ TON



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

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

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

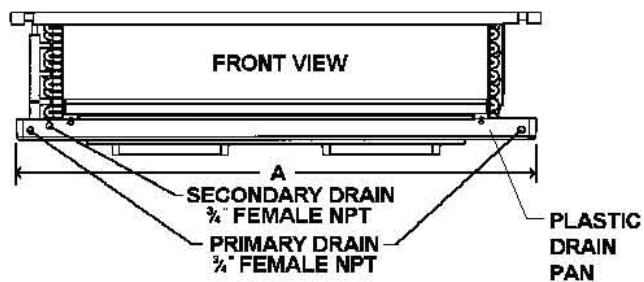
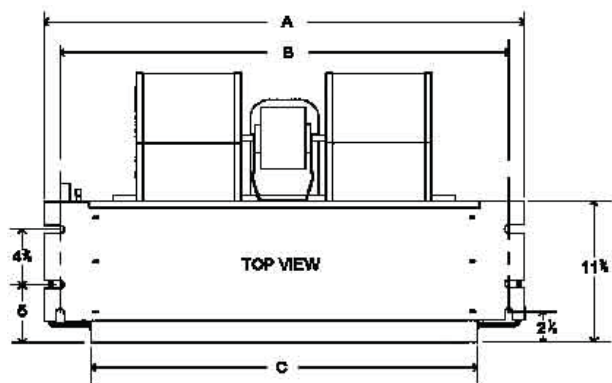
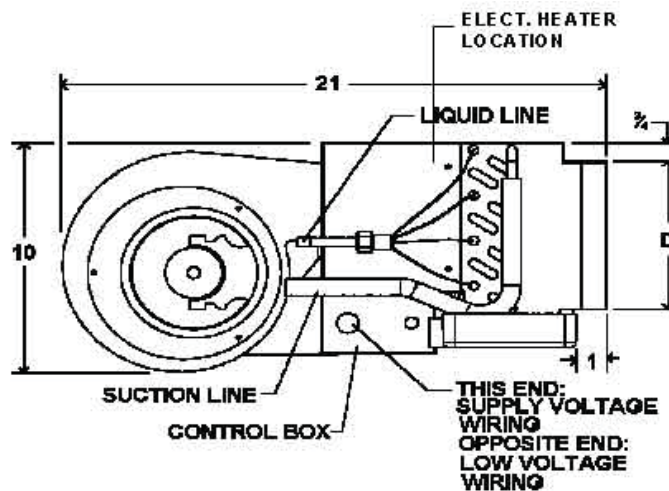
Note: Assumes dry coil with filter in place; 208-volt operation x .96

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 "

The diagram illustrates the wiring for the Electronic Blower Time Delay Relay (EBTOR). It shows the connection of a power supply (L1, L2) to the system. The EBTOR unit has terminals for R (Run), G (Ground), BL (Blow), BK (Black), Y (Yellow), and BR (Brown). The relay is connected to a 24V transformer (TR) and a 24V capacitor (C). The relay also controls a motor (EM) and a capacitor (RC). The diagram includes a legend for wire colors and a list of components.

WIRE COLOR CODE

Color	Code
BK	BLACK
R	RED
Y	YELLOW
BL	BLUE
G	GREEN
PU	PURPLE

WIRE CODE

Code	Code
—	HIGH VOLTAGE
- -	LOW VOLTAGE
—	FIELD WIRING
- -	HIGH VOLTAGE
- -	LOW VOLTAGE

COMPONENT CODE

Code	Code
DC	DISCONNECT
EM	EVAPORATOR MOTOR
TR	TRANSFORMER
RC	RUN CAPACITOR
EBTOR	ELECTRONIC BLOWER TIME DELAY RELAY
	DELAY RELAY

NOTES:

- 1) TO PLACE UNIT IN LOW SPEED, REMOVE BLACK MOTOR LEAD FROM ELECTRONIC BLOWER TIME DELAY RELAY (EBTOR) COM TERMINAL AND REPLACE WITH RED MOTOR LEAD
- 2) SEE COMPOSITE WIRING DIAGRAMS IN INSTALLATION INSTRUCTIONS FOR PROPER LOW VOLTAGE WIRING CONNECTIONS.
- 3) EBTOR HAS A 7 SECOND ON DELAY WHEN "G" IS ENERGIZED AND A 65 SECOND SECOND OFF DELAY WHEN "G" IS DE-ENERGIZED.

SS-GACNF

NOTES



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