



OIL FIRED UPFLOW FURNACE SPECIFICATIONS

MODEL NO.	VHF-ABP (BECKETT AFG)			VHF-ANP / VHF-ANE (BECKETT NX)		
	High Fire	Med Fire	Low Fire	High Fire	Med Fire	Low Fire
HEATING CAPACITY						
HEAT INPUT RATE (BTUH)	106,250	85,000	70,000	106,250	85,000	70,000
OUTPUT BTUH ¹	90,000	69,000	60,000	90,000	72,000	60,000
SEASONAL EFFICIENCY ²	83.0%			85.5%		
LARGEST REC A/C ³	4 Tons			4 Tons		
NOMINAL TEMP RISE	70°	70°	70°	70°	70°	70°
HEAT EXCHANGE AREA						
CASING HEIGHT (IN.):	45"			45"		
CASING WIDTH (IN.):	21"			21"		
CASING DEPTH (IN.):	30"			30"		
NOMINAL FLUE OUTLET DIA.	5"			5"		
APPROX SHIPPING WEIGHT	270			270		
APPROVAL AGENCY	ETL			ETL		
QTY AND SIZE OF PERMANENT FILTERS	(1) 24 1/2" X 15 "			(1) 24 1/2" X 15 "		
ELECTRICAL REQUIREMENTS	120/60/1			120/60/1		
MAX FUSE SIZE	15			15		
TOTAL CURRENT (AMPS) PSC / ECM	8.7			8.7 / 12.1		
HEIGHT FROM FLOOR TO CENTER OF FLUE	40-11/16"			40-11/16"		
SUPPLY AIR OUTLET SIZE (W-IN. X D-IN.)	19" X 19"			19" X 19"		
RETURN AIR DUCTWORK CONNECTION FLANGE SIZE ON FILTER RACK (D-IN. X H-IN.)	24" X 14-1/4"			24" X 14-1/4"		
RETURN AIR INLET OPENING SIZE IN SIDE CASING (TO BE CUT-OUT BY DEALER) (D-IN. X H-IN.)	23" X 14"			23" X 14"		
PROGRAMMABLE T-STAT STD/DELUXE	350164 / 350165			350164 / 350165		
FIELD VENT TERMINATION KIT	AOPS8393			AOPS8393		
SIDEWALL VENT ACCESSORIES KIT	AOPS8394			AOPS8412		
COMBUSTION AIR KIT FOR BECKETT	AOPS8397			AOPS8413		
BLOCKED VENT KIT ⁴	AOPS2687			AOPS2687		

- SEE NEXT PAGE FOR MORE DATA -

¹ OUTPUT BTUH BASED ON ANNUAL FUEL UTILIZATION EFFICIENCY RATED BY MANUFACTURER.

² SEASONAL EFFICIENCY (ALSO CALLED AFUE - ANNUAL FUEL UTILIZATION EFFICIENCY) RATINGS ARE BASED ON TESTS FOLLOWING U.S. DEPARTMENT OF ENERGY TEST PROCEDURES.

³ TO PERMIT LARGEST RECOMMENDED AIR CONDITIONING (AT .5 STATIC PRESSURE), SELECTION OF THE HIGHEST MOTOR SPEED IS REQUIRED.

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

⁴ NOT TO BE USED IN SIDEWALL VENT APPLICATIONS, USE ONLY WHEN CHIMNEY VENTED.

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Model Number Digit	1	2	3	4	5	6	7
	Series	Configuration	Flue		Design Change	Burner Type	Blower Type
Oil Furnace Model Nomenclature Example Model Numbers	V	H	F	-	A	B	P
	V	H	F	-	A	N	E
V = Spirit, Oil Furnace	V						
H = Highboy		H					
F = Front			F				
				-			
Design Change					A		
B= Beckett AFG, N=Beckett NX						B	
P = PSC Direct Drive, E = ECM Direct Drive							P

- SEE NEXT PAGE FOR MORE DATA -

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BLOWER DATA:	VHF-A*P	VHF-ANE
BLOWER MODEL ⁵	DD 100-9R	DD 100-9R
MOTOR H.P.	½ HP	¾ HP
MOTOR TYPE & NUMBER OF SPEEDS	PSC - 4	ECM
HIGH SPEED AIRFLOW (SCFM) @ 0.5 IN. W.G. EXTERNAL STATIC PRESSURE:	1569	1600
Diameter x Width	10 x 9	10 x 9

BURNER DATA	BECKETT "AFG" S - PLATE 3912 (3-5/8U) 31517 CERAMIC		
AIR TUBE LENGTH (IN.)	4 ½"		
BURNER HEAD TYPE:	F-3		
FUEL TYPE:	#2		
NOZZLE RATING (GPH):	.75	.60	.50
SPRAY ANGLE (DEG.):	80°	80°	80°
SPRAY PATTERN:	HOLLOW (A)	HOLLOW (A)	HOLLOW (A)
OIL PUMP PRESSURE (PSIG):	120 PSI		
COMBUSTION CHAMBER TYPE:	REFRACTORY (HARD CERAMIC)		

BURNER DATA	BECKETT "NX" w/ NX50LGHS TUBE COMBINATION		
AIR TUBE LENGTH (IN.)	4 ½"		
BURNER HEAD TYPE:	FIXED		
FUEL TYPE:	#2		
NOZZLE RATING (GPH):	.60	.50	.40
SPRAY ANGLE (DEG.):	70°	70°	70°
SPRAY PATTERN:	HOLLOW (A)	HOLLOW (A)	HOLLOW (A)
OIL PUMP PRESSURE (PSIG):	150 PSI		
COMBUSTION CHAMBER TYPE:	REFRACTORY (HARD CERAMIC)		

CLEARANCES	
	MINIMUM CLEARANCES TO COMUSTIBLE MATERIALS:
SIDES	0"
FRONT (SERVICE ACCESS)	24"
REAR	0"
FLUE	7"
TOP PLENUM	1"

⁵ DD = DIRECT DRIVE

- SEE NEXT PAGE FOR MORE DATA -

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VHF-A*P

ALTERATIONS REQ'D FOR A/C @ DESIGN EXTERNAL STATIC PRESSURE				
COOLING UNIT	HTG Speed by Input			Recommended CLG Speed
	Low Fire	Mid Fire	High Fire	
24,000	Low	ML	MH	Low
30,000	Low	ML	MH	Med Low
36,000	Low	ML	MH	Med High
42,000	Low	ML	MH	Med High
48,000	Low	ML	MH	High

Speed Tap\ Static Pressure	Furnace Airflow (CFM) vs. External Static pressure (in. WC.)						
	0.1	0.2	0.3	0.4	0.5	0.6	0.7
Low	930	915	912	910	822	774	730
ML	1155	1152	1130	1126	1085	1042	920
MH	1442	1432	1418	1382	1334	1293	1230
High	1802	1762	1705	1635	1569	1493	1428
Furnace Motor Current Draw (Amps) vs. External Static pressure (in. WC.)							
Low	3.28	3.1	3.02	2.91	2.64	2.49	2.36
ML	4.18	4.02	3.91	3.74	3.59	3.34	2.95
MH	5.44	5.17	4.95	4.72	4.43	4.21	3.95
High	6.61	6.36	6.04	5.73	5.46	5.17	4.9

Speed Tap\ Static Pressure	High Fire Temperature Rise vs. External Static pressure (in. WC.)						
	0.1	0.2	0.3	0.4	0.5	0.6	0.7
Low	90	91	91	92	101	108	114
ML	72	72	74	74	77	80	91
MH	58	58	59	60	62	64	68
High	46	47	49	51	53	56	58

Speed Tap\ Static Pressure	Mid Fire Temperature Rise vs. External Static pressure (in. WC.)						
	0.1	0.2	0.3	0.4	0.5	0.6	0.7
Low	72	73	73	73	81	86	91
ML	58	58	59	59	61	64	72
MH	46	47	47	48	50	52	54
High	37	38	39	41	42	45	47

Speed Tap\ Static Pressure	Low Fire Temperature Rise vs. External Static pressure (in. WC.)						
	0.1	0.2	0.3	0.4	0.5	0.6	0.7
Low	60	61	61	61	68	72	76
ML	48	48	49	49	51	53	60
MH	39	39	39	40	42	43	45
High	31	32	33	34	35	37	39

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OIL FIRED UPFLOW FURNACE SPECIFICATIONS

VHF-ANE

ECM BLOWER

Heating Speed Set-ups

		Low Fire	Med Fire	High Fire
		60,000	72,000	90,000
		BTUH		
Fan Control SW 1 Switch Settings	Heating CFM	Approx. Rise (F°)	Approx. Rise (F°)	Approx. Rise (F°)
3-OFF 2-OFF 1-OFF	740	75°		
3-OFF 2-OFF 1-ON	812	68°	80°	
3-OFF 2-ON 1-OFF	883	63°	76°	
Factory SW1 Switch Settings 3-OFF 2-ON 1-ON	968	57°	69°	
3-ON 2-OFF 1-OFF	1054		63°	79°
3-ON 2-OFF 1-ON	1153		58°	72°
3-ON 2-ON 1-OFF	1267			66°
3-ON 2-ON 1-ON	1424			58°

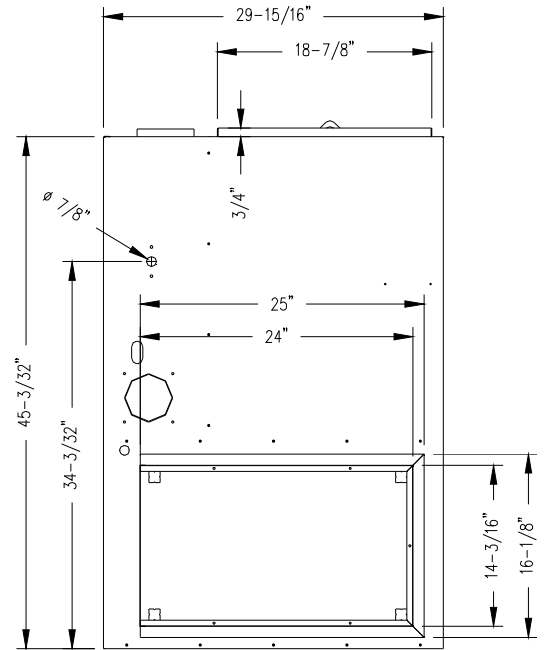
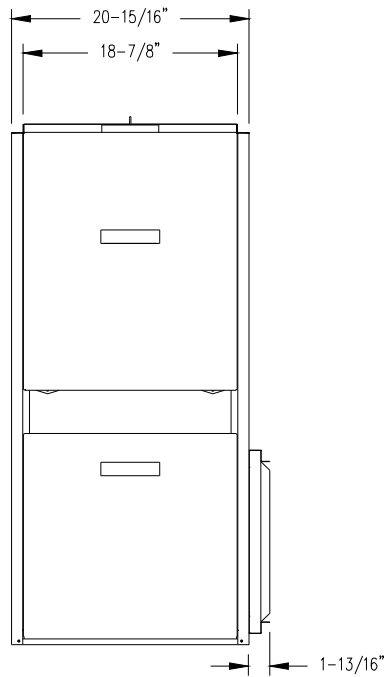
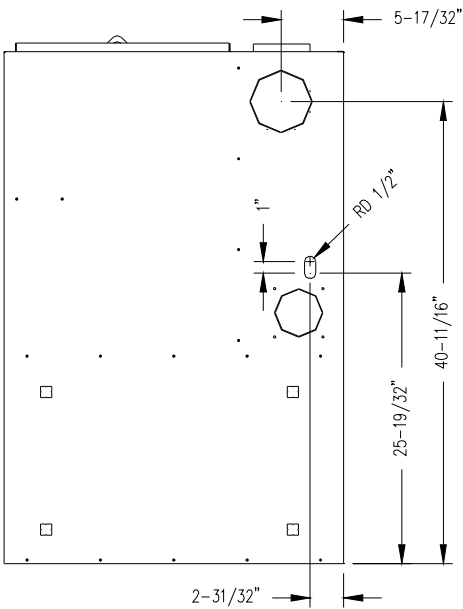
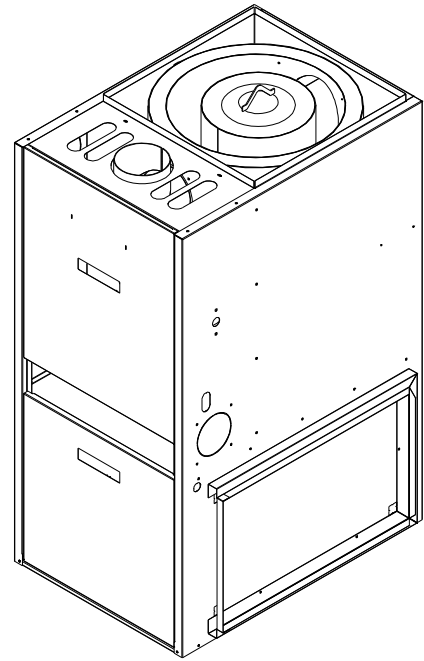
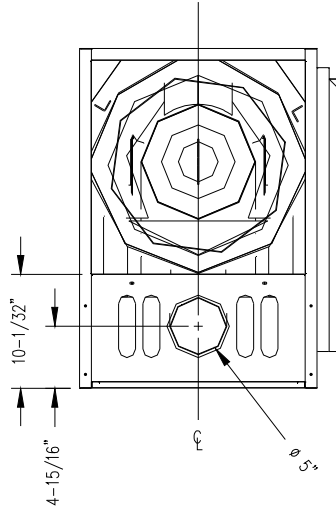
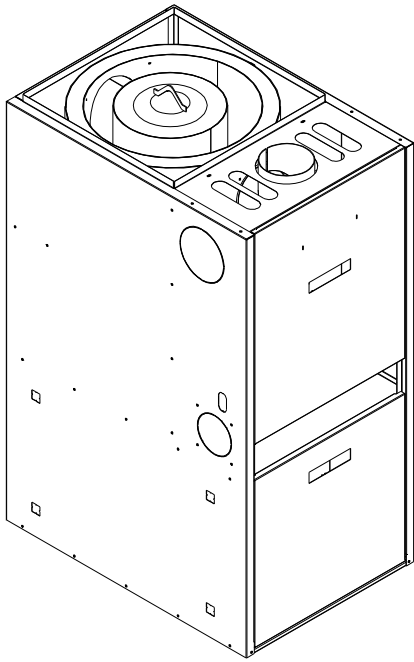
= Recommended Heating Speed Setting

Cooling Speed Set-ups

		Air Flow	
Fan Control SW 1 Switch Settings	Clg. Tonnage	Cool	Continuous
6-OFF 5-OFF 4-OFF	2	799	500
6-OFF 5-OFF 4-ON	2.5	1017	508
6-OFF 5-ON 4-OFF	3	1210	605
6-OFF 5-ON 4-ON	3.5	1404	702
Factory SW1 Switch Settings 6-ON 5-OFF 4-OFF	4	1622	799

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A/C EVAPORATOR COIL APPLICATION

CONDENSER	14 SEER				
FURNACE					
	AC14241G2	AC14301G2	AC14361G2	AC14421G2	AC14481G2 AC14483G2
	UPFLOW (CASED) COIL				
VHF-ABP / VHF-ANP	CA243619	CA303619	CA303619	CA424219	CA424820
VHF-ANE	CA243619	CA303619	CA303619	CA424219	CA424820
HEAT PUMP	14 SEER				
FURNACE					
	HP14241C1	HP14301C1	HP14361C1	HP14421C1	HP14481C1 HP14483C1
	UPFLOW (CASED) COIL				
VHF-ABP / VHF-ANP	CA243619	CA303619	CA303619	CA424219	CA424820
VHF-ANE	CA243619	CA303619	CA303619	CA424219	CA424820