



OIL FIRED COUNTERFLOW/*HORIZONTAL FURNACE SPECIFICATIONS

MODEL NO.	OD6F/RA072D48(V5)B			OD6F/RA072D48(V5)R			OD6F/RA072D48(V5)C		
HEATING CAPACITY	High Fire	Med Fire	Low Fire	High Fire	Med Fire	Low Fire	High Fire	Med Fire	Low Fire
HEAT INPUT RATE (BTUH)	106,250	85,000	70,000	106,250	85,000	70,000	106,250	85,000	70,000
OUTPUT BTUH ¹	89,000	72,000	60,000	89,000	72,000	60,000	89,000	72,000	60,000
SEASONAL EFFICIENCY ²	85.7%			85.7%			85.0%		
LARGEST REC A/C ³	4 Tons (5 Tons)			4 Tons (5 Tons)			4 Tons (5 Tons)		
NOMINAL TEMP RISE	66°	66°	66°	66°	66°	66°	66°	66°	66°
HEAT EXCHANGER AREA									
CASING HEIGHT (IN.):	45"			45"			45"		
CASING WIDTH (IN.):	20"			20"			20"		
CASING DEPTH (IN.):	30"			30"			30"		
NOMINAL FLUE OUTLET DIA.	5"			5"			5"		
APPROX SHIPPING WEIGHT LBS	250			250			250		
APPROVAL STANDARDS	UL727 CAN/CSA B140.4			UL727 CAN/CSA B140.4			UL727 CAN/CSA B140.4		
QTY AND SIZE OF PERMANENT FILTERS	(2) 18-3/4" X 12-3/4"			(2) 18-3/4" X 12-3/4"			(2) 18-3/4" X 12-3/4"		
ELECTRICAL REQUIREMENTS VAC/HZ/PH	120/60/1			120/60/1			120/60/1		
MAX FUSE SIZE (AMPS) PSC/ECM	15 / 15			15 / 15			15 / 15		
TOTAL CURRENT (AMPS) PSC/ECM	8.7 / 12.3			8.7 / 12.3			8.7 / 12.3		
HEIGHT FROM FLOOR TO CENTER OF FLUE (F/R)	20-1/2" / 20-1/2"			20-1/2" / 20-1/2"			20-1/2" / 20-1/2"		
SUPPLY AIR OUTLET SIZE (W-IN. X D-IN.)	18" X 20"			18" X 20"			18" X 20"		
RETURN AIR INLET OPENING SIZE (W-IN. X D-IN.)	18" X 19"			18" X 19"			18" X 19"		
	ACCESSORY ITEMS								
2-LINE SYSTEM KIT FOR RIELLO	N/A			380705			N/A		
COMBUSTION AIR KIT	AOPS8397			AOPS8416			AOPS8433		
FIELD VENT TERMINATION KIT	AOPS8393			AOPS8393			AOPS8393		
SIDEWALL VENT ACCESSORIES KIT	AOPS8394			AOPS8395			AOPS8432		
COMBUSTIBLE FLOOR BASE	D6-BASE			D6-BASE			D6-BASE		
COTTAGE BASE	D6COT-BASE			D6COT-BASE			D6COT-BASE		
COIL CABINET	CE112S, CE312T			CE112S, CE312T			CE112S, CE312T		
BLOCKED VENT KIT ⁴	AOPS2686			AOPS2686			AOPS2686		
OIL BURNER	BECKETT AFG (380692)			RIELLO BF3 (380693)			CARLIN EZ-1HP (380835)		
SUPPLY PLENUM	PK181X201			PK181X201			PK181X201		
RETURN PLENUM	PK181X191			PK181X191			PK181X191		
COUNTERFLOW									
CABINET / COIL 2-3TON	CE112S / HE33936UA170			CE112S / HE33936UA170			CE112S / HE33936UA170		
CABINET / COIL 2-3TON HIGH EFF.	CE312T / HE47936UA205			CE312T / HE47936UA205			CE312T / HE47936UA205		
CABINET / COIL 3.5-5 TON	CE312T / HE50960UA205			CE312T / HE50960UA205			CE312T / HE50960UA205		
HORIZONTAL									
CASED COIL 2-3TON	HE33936CH210			HE33936CH210			HE33936CH210		
CASED COIL 2-3TON HIGH EFF.	HE47936CH210			HE47936CH210			HE47936CH210		
CASED COIL 3.5-5 TON	HE50960CH210			HE50960CH210			HE50960CH210		

*Horizontal installation for left or right supply.

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.

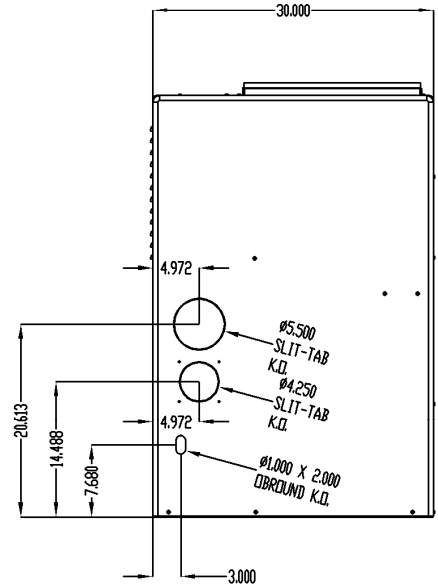
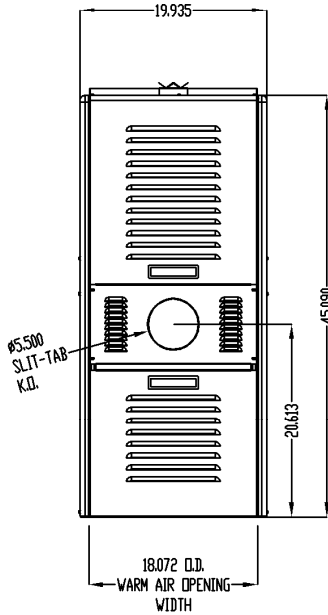
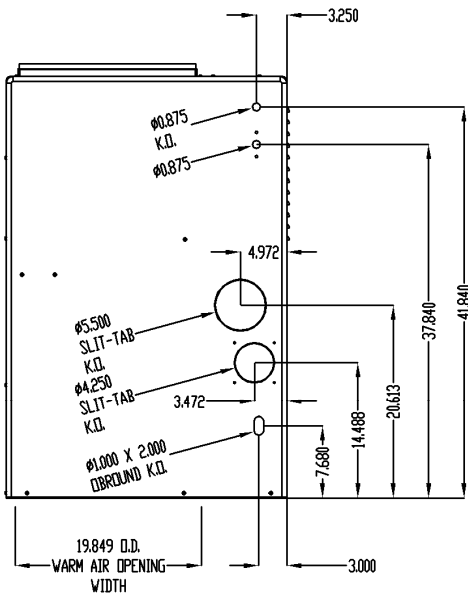
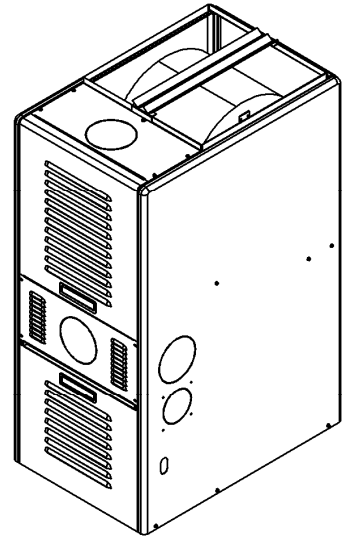
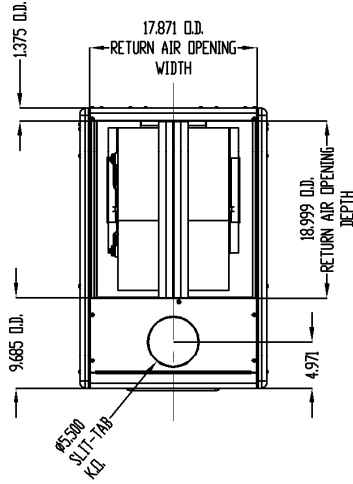
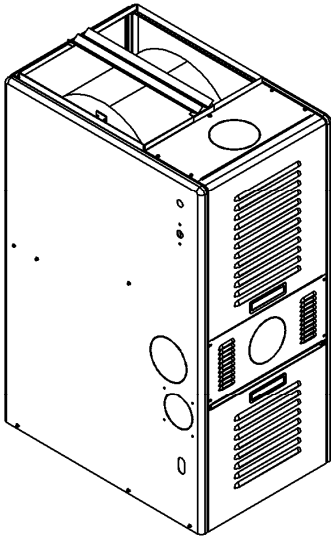
³ TO PERMIT LARGEST RECOMMENDED AIR CONDITIONING (AT .5 STATIC PRESSURE), SELECTION OF THE HIGHEST MOTOR SPEED IS REQUIRED.

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

Model Number Digit	1	2	3	4	5	6	7	8	9	10	11	12
	Fuel	Configuration	Heat Exchanger Identifier	Flue	Feature	Capacity	Capacity	Capacity	Blower Type	Cig Airflow Cap.	Cig Airflow Cap.	Burner
Oil Furnace Model Nomenclature Example Model Numbers	O	D	6	F	A	0	7	2	D	4	8	B
	O	D	6	F	A	0	7	2	D	V	5	R
	O	D	6	R	A	0	7	2	D	4	8	B
	O	D	6	R	A	0	7	2	D	V	5	R
O = Oil	O											
H = Highboy D = Dual Poise		D										
6 = Heat Exchanger Size Identifier			6									
F = Front				F								
R = Rear				R								
A = Single Stage					A							
Heating Capacity MBTUH (000's) with factory installed nozzle						0	7	2				
D = Direct Drive									D			
Cig. Airflow: Example = 48MBTUH = 4 tons @ 400cfm/ton										4	8	
Cig. Airflow Variable Speed (ECM) V5= 5tons										V	5	
B = Beckett, R = Riello, C = Carlin												B

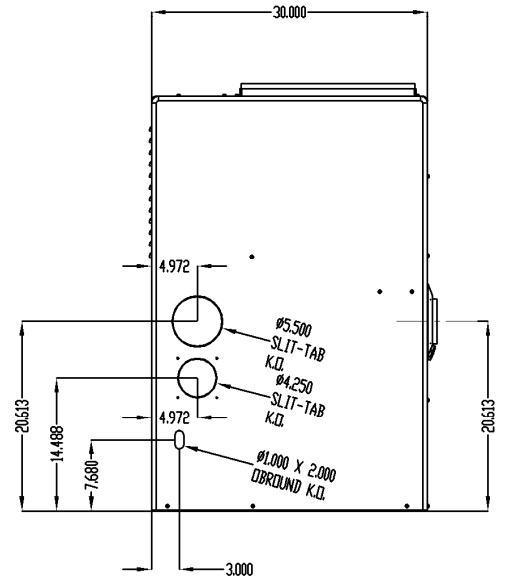
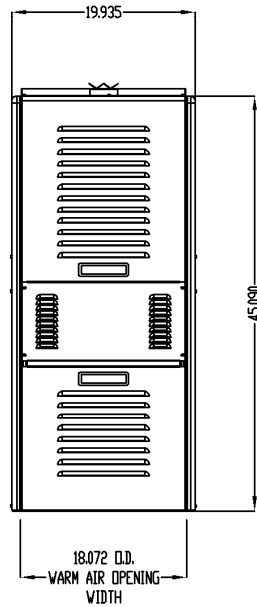
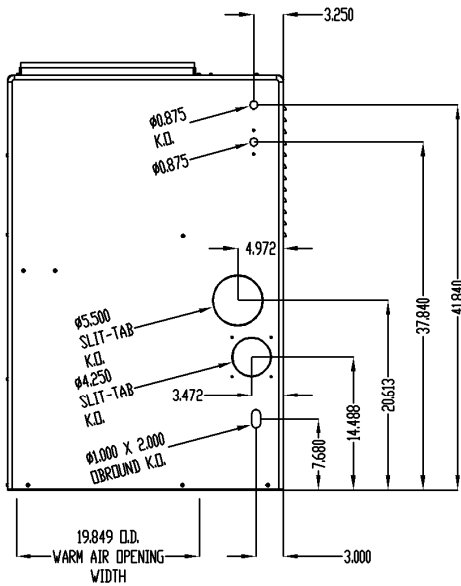
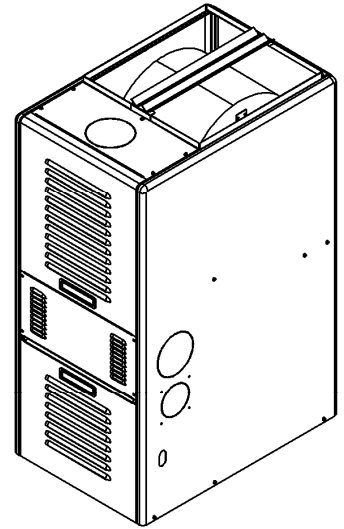
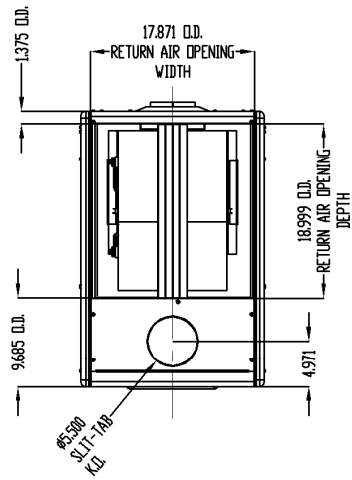
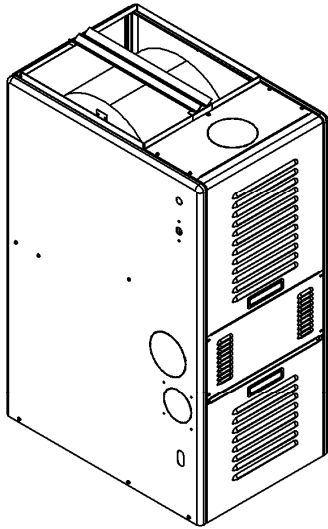
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OIL FIRED COUNTERFLOW/HORIZONTAL FURNACE SPECIFICATIONS



OD6FA072D***

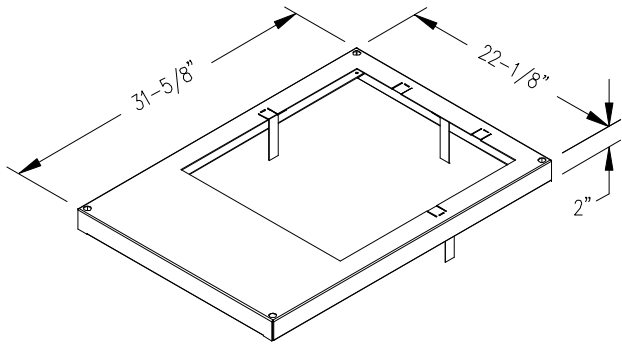
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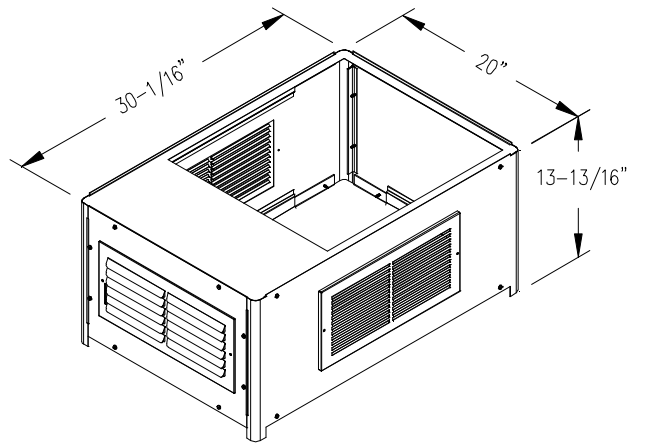
OD6RA072D***

CLEARANCES:	FRONT FLUE	REAR FLUE
	MINIMUM CLEARANCES TO COMUSTIBLE MATERIALS:	
SIDES	0"	0"
FRONT (SERVICE ACCESS)	(Clearance to Combustibles) 6"/ 24" (Service)	(Clearance to Combustibles) 6"/ 24" (Service)
REAR	0"	0"
FLUE	7"	7"
TOP	0"	0"
SUPPLY PLENUM	1"	1"

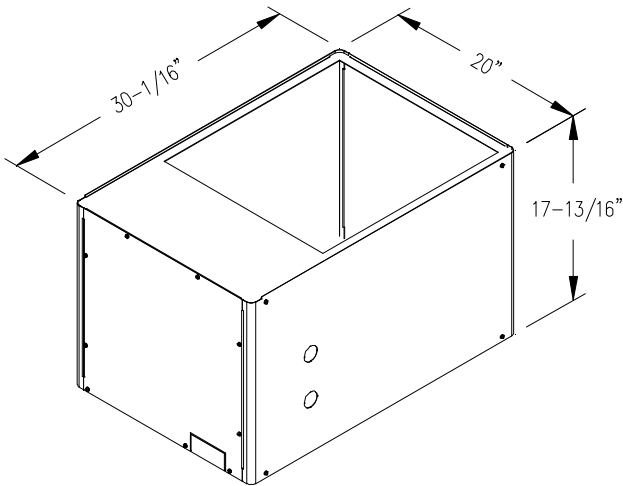
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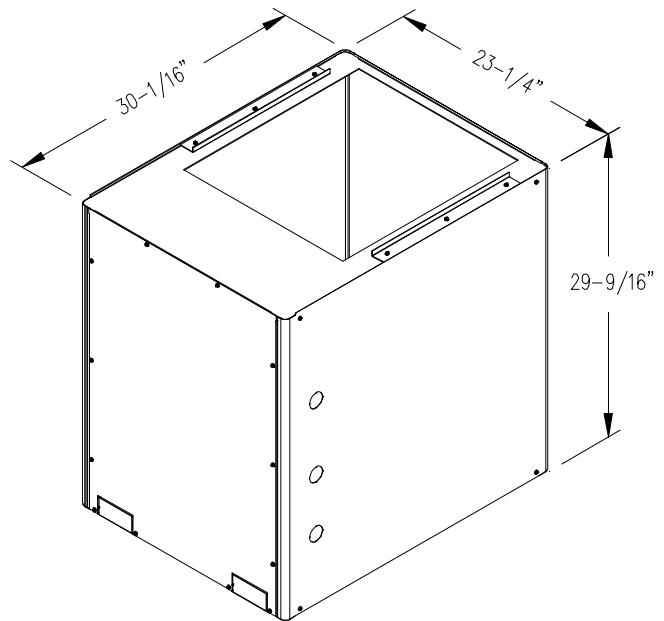
COMBUSTIBLE FLOOR BASE MODEL: D6-BASE



COTTAGE BASE MODEL: D6COT-BASE



COIL CABINET MODEL: CE112S



COIL CABINET MODEL: CE312T

- SEE NEXT PAGE FOR MORE DATA -

OIL FIRED COUNTERFLOW/HORIZONTAL FURNACE SPECIFICATIONS

BLOWER DATA:	OD6F/RA072D48	OD6F/RA072DV5
BLOWER MODEL DIRECT DRIVE	12-9-T-DD-11	12-9-T-DD-11
MOTOR H.P.	½ HP	1 HP
MOTOR TYPE & NUMBER OF SPEEDS	PSC - 5	ECM (CONSTANT CFM)
HIGH SPEED AIRFLOW (SCFM) @ 0.5 IN. W.G. EXTERNAL STATIC PRESSURE:	1600	2000
Diameter x Width	12 x 9	12 x 9

BURNER DATA:	RIELLO "BF3" WITH CERA-FELT SLEEVE		
AIR TUBE LENGTH (IN.)	4 ½"		
BURNER HEAD TYPE:	Fixed		
FUEL TYPE:	#2		
NOZZLE RATING (GPH):	.70	.60	.50
SPRAY ANGLE (DEG.):	80°	80°	80°
SPRAY PATTERN:	HOLLOW (A)	HOLLOW (A)	HOLLOW (A)
OIL PUMP PRESSURE (PSIG):	140 PSI		
COMBUSTION CHAMBER TYPE:	REFRACTORY (SOFT CHAMBER)		

BURNER DATA:	BECKETT "AFG" S-PLATE 3912 (3-5/8") 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.):	70°	70°	70°
SPRAY PATTERN:	SOLID (B)	SOLID (B)	HOLLOW (A)
OIL PUMP PRESSURE (PSIG):	120 PSI		
COMBUSTION CHAMBER TYPE:	REFRACTORY (SOFT CHAMBER)		

BURNER DATA:	CARLIN "EZ-1HP"		
AIR TUBE LENGTH (IN.)	4 ½"		
BURNER HEAD TYPE:	N/A		
FUEL TYPE:	#2		
NOZZLE RATING (GPH):	.75	.60	.50
SPRAY ANGLE (DEG.):	60°	60°	60°
SPRAY PATTERN:	HOLLOW (A)	HOLLOW (A)	HOLLOW (A)
OIL PUMP PRESSURE (PSIG):	120 PSI		
COMBUSTION CHAMBER TYPE:	REFRACTORY (SOFT CHAMBER)		

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OIL FIRED COUNTERFLOW/HORIZONTAL FURNACE SPECIFICATIONS OD6F/RA072D48

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 / Med Low
30,000	Low	ML	MH	Med Low
36,000	Low	ML	MH	Med / Med High
42,000	Low	ML	MH	Med High / 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	797	792	770	735	692	643	613
ML	1019	1011	1002	982	953	935	913
Med	1230	1219	1203	1191	1150	1114	1090
MH	1370	1357	1335	1316	1280	1238	1203
High	1846	1789	1750	1705	1640	1588	1533

Motor Current Draw (Amps) vs. External Static pressure (in. WC.)							
Low	3.53	3.4	3.27	3.12	3	2.88	2.7
ML	4.6	4.53	4.46	4.33	4.2	4.09	3.99
Med	5.6	5.47	5.42	5.35	4.83	4.61	4.53
MH	6.7	6.28	5.97	5.76	5.46	5.22	5.01
High	8.26	8.02	7.78	7.49	7.14	6.86	6.58

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	104	106	109	115	121	128	143
ML	83	82	83	85	87	92	102
Med	68	69	70	72	74	76	79
MH	58	59	60	61	63	66	68
High	44	46	47	48	49	51	53

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	83	85	87	92	97	102	115
ML	66	66	67	68	70	73	82
Med	55	55	56	57	59	61	63
MH	47	47	48	49	51	53	55
High	35	36	38	38	40	41	43

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	69	70	72	76	80	84	94
ML	54	54	55	56	58	60	67
Med	45	46	46	47	49	50	52
MH	38	39	40	40	42	43	45
High	29	30	31	32	33	34	35

= Recommended operation range

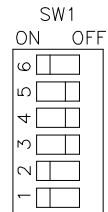
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OIL FIRED COUNTERFLOW/HORIZONTAL FURNACE SPECIFICATIONS OD6F/RA072DV5

Heating Speed Set-ups

NRGMAX Control	BTUH	Low Fire	Med Fire	High Fire	Static Pressure (Amps/Watts)		UT Control	
		60,000	72,000	90,000				
ECM Blower Heat Switch Settings	Heating CFM	Aprox. Rise (F°)	Aprox. Rise (F°)	Aprox. Rise (F°)	0.2	0.5	Fan Control SW 1 Switch Settings	
3-OFF 2-OFF 1-OFF	755	73			1.3/114	1.9/173	3-OFF 2-OFF 1-OFF	
3-OFF 2-OFF 1-ON	826	66	80		1.4/121	2.1/191	3-OFF 2-OFF 1-ON	
3-OFF 2-ON 1-OFF	898	61	74		1.5/136	2.2/203	3-OFF 2-ON 1-OFF	
Factory Switch Settings	3-OFF 2-ON 1-ON	983	56	67	1.7/155	2.4/227	3-OFF 2-ON 1-ON	
	3-ON 2-OFF 1-OFF	1068		62	77	1.9/176	2.7/259	3-ON 2-OFF 1-OFF
	3-ON 2-OFF 1-ON	1168		57	71	2.2/203	3.0/286	3-ON 2-OFF 1-ON
	3-ON 2-ON 1-OFF	1282			64	2.6/245	3.5/333	3-ON 2-ON 1-OFF
	3-ON 2-ON 1-ON	1424			58	3.1/299	4.2/400	3-ON 2-ON 1-ON

= Recommended Heating Speed Setting



- SEE NEXT PAGE FOR MORE DATA -

OIL FIRED COUNTERFLOW/HORIZONTAL FURNACE SPECIFICATIONS OD6F/RA072DV5

NRGMAX Control	Cig. Tonnage	Air Flow		Static Pressure (Amps/Watts)		UT Control
		Cool	Continuous	0.2	0.5	Fan Control SW 1 Switch Settings
ECM Blower Cool Switch Settings						
3-OFF 2-OFF 1-OFF	2	799	500	1.3/115	2.0/185	6-OFF 5-OFF 4-OFF
3-OFF 2-OFF 1-ON	2.5	1017	508	1.8/168	2.5/234	6-OFF 5-OFF 4-ON
3-OFF 2-ON 1-OFF	3	1210	605	2.4/219	3.2/308	6-OFF 5-ON 4-OFF
3-OFF 2-ON 1-ON	3.5	1404	702	3.2/301	4.1/395	6-OFF 5-ON 4-ON
Factory Switch Settings						
3-ON 2-OFF 1-OFF	4	1622	799	4.3/412	5.4/532	6-ON 5-OFF 4-OFF
3-ON 2-ON 1-OFF	5	2010	993	7.2/720	8.6/861	6-ON 5-ON 4-OFF

Cooling Speed Set-ups

