

Deluxe 80 Single Stage Downflow Furnace

FLEXIBILITY

- 40" (1016mm) high for ease of installation
- Factory shipped for natural gas, with Propane Gas conversion kits available
- Dedicated downflow installation
- Category I venting
- Common venting

SERVICE

- Self diagnostics
- Entire blower assembly mounted on rails

COMFORT

- Adjustable time OFF blower delay
- 24 and 115 VAC humidifier terminal
- Electronic air cleaner terminal

EFFICIENCY

- 80% AFUE efficiency range
- Single stage gas valve operation
- Single stage integrated control
- Multispeed, prelubricated PSC motors
- Induced draft blower
- In-shot burners
- Insulated blower cabinet
- California NOx approved

QUALITY

- RPJ III Aluminized steel heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor
- Flame roll-out sensors standard
- Louvered doors
- One piece prepainted steel cabinet
- Filter rack with permanent filters

WARRANTY *

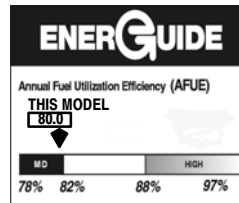
- 1 year No Hassle Replacement™ limited warranty
 - 20 year heat exchanger limited warranty
 - 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * Applies to original purchaser/homeowner, some limitations may apply. See warranty certificate for complete details.



Illustrations and photographs are only representative. Some product models may vary.

⚠ WARNING

This furnace is not designed for use in mobile homes, trailers, or recreational vehicles. Such use could result in property damage and/or death.



DOWNFLOW (NATURAL GAS)							
Model Number	Input (MBTUH)	Efficiency AFUE +	Cooling Capacity @ .5 in wc (125 Pa)	Dimensions H x W x D		Shipping Wt.	
				Inches	Millimeters	Lbs	Kg
H8DNL050B12B	50,000	80%	1.5 – 3.0 TON	40 x 15 ¹ / ₂ x 29	1016 x 394 x 737	142	64
H8DNL075B12B	75,000	80%	1.5 – 3.0 TON	40 x 15 ¹ / ₂ x 29	1016 x 394 x 737	145	66
H8DNL075F16B	75,000	80%	2.5 – 4.0 TON	40 x 19 ¹ / ₈ x 29	1016 x 486 x 737	160	73
H8DNL100F14B	100,000	80%	2.0 – 3.5 TON	40 x 19 ¹ / ₈ x 29	1016 x 486 x 737	162	74
H8DNL100L20B	100,000	80%	3.5 – 5.0 TON	40 x 24 ¹ / ₂ x 29	1016 x 622 x 737	176	80
H8DNL125L20B	125,000	80%	3.5 – 5.0 TON	40 x 24 ¹ / ₂ x 29	1016 x 622 x 737	184	84

FURNACE SPECIFICATIONS DOWNFLOW POSITION

Model Number	NATURAL GAS	H8DNL					
		050B12	075B12	075F16	100F14	100L20	125L20
INPUT (btuh)		50,000	75,000	75,000	100,000	100,000	125,000
HTG. CAP. (btuh)		40,000	61,000	61,000	81,000	81,000	101,000
AFUE % (ICS)		80%	80%	80%	80%	80%	80%
TEMP. RISE DEGREES (°F/°C)		35-65/19-36	35-65/19-36	35-65/19-36	35-65/19-36	30-60/17-33	35-65/19-36
VOLTS/PH/HZ		115/1/60					
MIN./MAX. VOLTAGE		104/127					
RATING PLATE AMPS.		9.2	9.0	12.0	9.2	13.5	13.2
TRANSFORMER (V.A.)		40					
GAS PIPE SIZE - in(mm)		1/2 (12.7)					
FLUE COLLAR SIZE - in(mm)		4 (101.6)					
COOLING CAP.		3.0	3.0	4.0	3.5	5.0	5.0
DIMENSIONS H x W x D - in(mm)		40 x 15 1/2 x 29 (1016 x 394 x 737)		40 x 19 1/8 x 29 (1016 x 486 x 737)		40 x 24 1/2 x 29 (1016 x 622 x 737)	
SHIPPING WEIGHT - Lbs(Kg)		142 (64)	145 (66)	160 (73)	162 (73)	176 (80)	184 (84)

(ICS) = Isolated Combustion System

UNIT DIMENSIONS

TOP
28 1/2 (724)
11 1/16 (17)
3 13/16 (97)
A
C

LEFT SIDE
18 1/2 (470)
9 3/16 (233)
3 7/8 (96)
1 1/16 (27)
2 13/16 (71)
24 15/16 (633)
9 1/8 (232)
4 15/16 (125)

FRONT
A
B
11 1/16 (17)

BOTTOM
11 1/16 (17)
8 1/4 (210)
16 5/8 (422)
D

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS FOR ALL UNITS	
REAR	0
FRONT	3" (76 mm)
Recommended For Service	30" (762 mm)
ALL SIDES OF SUPPLY PLENUM	1" (25 mm)
SIDES	0
VENT	
Single Wall Vent	6" (152 mm)
Type B-1 Double Wall Vent	1" (25 mm)
TOP OF FURNACE	1" (25 mm)

Horizontal position: Line contact is permissible only between lines formed by intersections of top and two sides of furnace jacket, and building joists, studs or framing.

RIGHT SIDE
3 7/8 (96)
9 3/16 (233)
18 1/2 (267)
1 1/16 (27)
2 3/16 (56)
24 15/16 (633)
40 (1016)
12 1/16 (306)
3 3/4 (95)

ALL DIMENSIONS in(mm)
1 in = 25.4 mm

DIMENSIONAL INFORMATION

Unit Capacity	Cabinet		Top	Bottom
	A	B	C	D
H8DNL050B12 H8DNL075B12	15 1/2 (394)	14 (356)	5 5/16 (135)	14 1/8 (359)
H8DNL075F16 H8DNL100F14	19 1/8 (486)	17 5/8 (447)	7 3/4 (197)	17 11/16 (449)
H8DNL100L20 H8DNL125L20	24 1/2 (622)	23 (584)	10 7/16 (265)	23 1/8 (587)

NOTE: Evaporator "A" coil drain pan dimensions may vary from furnace duct opening size. Always consult evaporator specifications for duct size requirements.

Unit is designed for top return ONLY.
Return air through back of unit is NOT allowed.

Drawing is representative, some models may vary in appearance

25-24-15a-1

BLOWER PERFORMANCE DOWNFLOW POSITION

Model Number	H8DNL					
	050B12 (1)	075B12 (1)	075F16 (1)	100F14 (1)	100L20 (1)	125L20 (1)
BLOWER D x W - in(mm)	11 x 8 (279 x 203)	11 x 8 (279 x 203)	11 x 10 (279 X 254)	11 x 10 (279 X 254)	11 x 10 (279 X 254)	11 x 10 (279 X 254)
MOTOR H.P. (TYPE)	1/2/PSC	1/3/PSC	1/2/PSC	1/2/PSC	3/4/PSC	3/4/PSC
MOTOR SPEEDS	4	4	4	4	4	4

CIRCULATION AIR BLOWER DATA

H8DNL050B12 (1)

External Static Pressure (in wc/Pa)	Air Delivery in CFM (L/s) Furnace Rated @0.5 in wc (125 Pa) ESP									
	TAP		LOW		MED L		MED H		HIGH	
	in wc	Pa	CFM	L/s	CFM	L/s	CFM	L/s	CFM	L/s
	0.10	25	702	331	963	454	1260	595	1537	725
0.20	50	663	313	904	427	1222	577	1477	697	
0.30	75	624	294	845	399	1183	558	1416	668	
0.40	100	567	268	803	379	1136	536	1362	643	
0.50	125	510	241	760	359	1088	513	1308	617	
0.60	149	461	218	689	325	1003	473	1210	571	
0.70	174	412	194	617	291	917	433	1111	524	
0.80	199	361	170	543	256	791	373	1030	486	
0.90	224	310	146	468	221	664	313	948	447	
1.00	249	249	118	436	206	529	250	808	381	

H8DNL100F14 (1)

External Static Pressure (in wc/Pa)	Air Delivery in CFM (L/s) Furnace Rated @0.5 in wc (125 Pa) ESP									
	TAP		LOW		MED L		MED H		HIGH	
	in wc	Pa	CFM	L/s	CFM	L/s	CFM	L/s	CFM	L/s
	0.10	25	756	357	1012	478	1372	647	1881	888
0.20	50	671	317	950	448	1323	624	1803	851	
0.30	75	585	276	888	419	1273	601	1724	814	
0.40	100	538	254	834	394	1225	578	1665	786	
0.50	125	491	232	780	368	1176	555	1606	758	
0.60	149	439	207	739	349	1106	522	1544	729	
0.70	174	387	183	697	329	1035	488	1481	699	
0.80	199	321	151	629	297	954	450	1381	652	
0.90	224	255	120	561	265	873	412	1281	605	
1.00	249	210	99	444	210	767	362	1132	534	

H8DNL075B12 (1)

External Static Pressure (in wc/Pa)	Air Delivery in CFM (L/s) Furnace Rated @0.5 in wc (125 Pa) ESP									
	TAP		LOW		MED L		MED H		HIGH	
	in wc	Pa	CFM	L/s	CFM	L/s	CFM	L/s	CFM	L/s
	0.10	25	634	299	728	344	975	460	1353	639
0.20	50	588	277	696	328	963	454	1337	631	
0.30	75	533	252	653	308	936	442	1307	617	
0.40	100	489	231	605	286	905	427	1274	601	
0.50	125	454	214	559	264	861	406	1225	578	
0.60	149	420	198	513	242	810	382	1164	549	
0.70	174	373	176	473	223	737	348	1087	513	
0.80	199	338	160	425	201	672	317	994	469	
0.90	224	255	120	392	185	605	286	884	417	
1.00	249	232	109	294	139	529	250	764	361	

H8DNL100L20 (1)

External Static Pressure (in wc/Pa)	Air Delivery in CFM (L/s) Furnace Rated @0.5 in wc (125 Pa) ESP									
	TAP		LOW		MED L		MED H		HIGH	
	in wc	Pa	CFM	L/s	CFM	L/s	CFM	L/s	CFM	L/s
	0.10	25	1798	849	2024	955	2212	1044	2375	1121
0.20	50	1754	828	1960	925	2147	1013	2290	1081	
0.30	75	1709	807	1896	895	2081	982	2205	1041	
0.40	100	1662	784	1835	866	2002	945	2116	999	
0.50	125	1614	762	1774	837	1922	907	2026	956	
0.60	149	1542	728	1694	799	1837	867	1943	917	
0.70	174	1470	694	1614	762	1752	827	1860	878	
0.80	199	1376	649	1521	718	1650	779	1753	827	
0.90	224	1282	605	1428	674	1548	731	1645	776	
1.00	249	1065	503	1263	596	1407	664	1508	712	

H8DNL075F16 (1)

External Static Pressure (in wc/Pa)	Air Delivery in CFM (L/s) Furnace Rated @0.5 in wc (125 Pa) ESP									
	TAP		LOW		MED L		MED H		HIGH	
	in wc	Pa	CFM	L/s	CFM	L/s	CFM	L/s	CFM	L/s
	0.10	25	648	306	900	425	1285	606	1789	844
0.20	50	636	300	913	431	1307	617	1770	835	
0.30	75	628	296	916	432	1328	627	1747	824	
0.40	100	621	293	897	423	1324	625	1718	811	
0.50	125	611	288	889	420	1309	618	1680	793	
0.60	149	585	276	869	410	1283	605	1640	774	
0.70	174	557	263	843	398	1240	585	1588	749	
0.80	199	522	246	809	382	1192	563	1523	719	
0.90	224	485	229	748	353	1122	529	1452	685	
1.00	249	441	208	680	321	1041	491	1374	648	

H8DNL125L20 (1)

External Static Pressure (in wc/Pa)	Air Delivery in CFM (L/s) Furnace Rated @0.5 in wc (125 Pa) ESP									
	TAP		LOW		MED L		MED H		HIGH	
	in wc	Pa	CFM	L/s	CFM	L/s	CFM	L/s	CFM	L/s
	0.10	25	1936	914	2165	1022	2319	1094	---	---
0.20	50	1891	892	2097	990	2283	1077	---	---	
0.30	75	1845	871	2028	957	2246	1060	2334	1101	
0.40	100	1787	843	1965	927	2154	1017	2253	1063	
0.50	125	1728	815	1902	898	2061	973	2172	1025	
0.60	149	1632	770	1799	849	1959	924	2062	973	
0.70	174	1536	725	1695	800	1856	876	1952	921	
0.80	199	1434	677	1593	752	1728	815	1820	859	
0.90	224	1331	628	1490	703	1600	755	1687	796	
1.00	249	1215	573	1352	638	1424	672	1537	725	

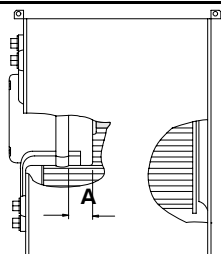
NOTE: (1) Gray area is above maximum temperature rise range.
CFM – Cubic feet per minute airflow.

L/s – Liters per second

Filter required for each return-air inlet. Airflow performance includes 1" (25.4mm) washable – 600 FPM (3.0 M/s) max filter media.

*See Table for bellyband location on motor

Bellyband Location on Motor A Dimension		
Model H8DNL	inches	mm
050B12B2	1 ³ / ₈	35.1
075B12B2	1 ⁵ / ₈	41.9
075F16B2	1 ⁷ / ₈	46
100F14B2	1 ³ / ₈	35.1
100L20B2	1 ⁵ / ₈	41.9
125L20B2	1 ⁵ / ₈	41.9



MODEL NUMBER IDENTIFICATION GUIDE

H	8	DN	L	075	B	12	B	#
Brand								Engineering Rev. Denotes minor change
Efficiency 8 = Non-Condensing, 80+% Gas Furnace 9 = Condensing, 90+% Gas Furnace								Marketing Digit Denotes major change
Installation Configuration UP = Upflow DN = Downflow UH = Upflow/Horizontal HZ = Horizontal DH = Downflow/Horizontal MP = Multiposition, Upflow/Downflow/Horizontal								Cooling Airflow 08 = 800 CFM 16 = 1600 CFM 12 = 1200 CFM 20 = 2000 CFM 14 = 1400 CFM 22 = 2200 CFM
Major Design Feature 1 = One (Single) Pipe N = Single Stage 2 = Two Pipe P = PVC Vent D = 1 or 2 Pipe T = Two Stage L = Low NOx V = Variable Speed								Cabinet Width B = 15.5" Wide J = 22.8" Wide F = 19.1" Wide L = 24.5" Wide
Input (Nominal MBTUH)								

ACCESSORIES

Model Number	Description	Used With Models
GAS CONVERSION KITS		
NAHA001LP 1172958**	Natural gas to Propane conversion Kit. Allows field conversion to Propane gas.	ALL H8DNL FURNACES
NAHA001NG 1172960**	Propane to natural gas conversion kit. Allows field conversion to natural gas. (Single Stage)	ALL H8DNL FURNACES
COMBUSTIBLE FLOOR SUBBASE		
NAHH001SB	Subbase Furnace ONLY: All 15 ¹ / ₂ " wide furnace models	H8DNL050B-075B
NAHH002SB	Subbase Furnace ONLY: All 19 ¹ / ₄ " wide furnace models	H8DNL075F-100F
NAHH010SB	Subbase Furnace ONLY: All 24 ¹ / ₂ " wide furnace models	H8DNL100L-125L
NAHH004SB	Subbase Furnace w/15 ¹ / ₂ " cased coil	H8DNL050B-075B
NAHH005SB	Subbase Furnace w/19 ¹ / ₄ " cased coil	H8DNL075F-100F
NAHH009SB	Subbase Furnace w/24 ¹ / ₂ " cased coil	H8DNL100L-125L
WARNING LABEL REPLACEMENT KIT		
NAHA002WL	To replace Warning Labels, Operating Instructions & Wiring Labels on Blower Door when needed	H8DNL

** Fast part number