

AF90

AIRE-FLO™

AF90 Gas Furnace • High Efficiency



Features

- Up to 92.1% AFUE
- Heating size range 50,000 – 125,000 BTUH
- 1-1/2 – 5 tons cooling capacity supported
- Twenty-year limited warranty on heat exchanger
- Five-year warranty on parts
- Heavy-gauge, grey, pre-painted cabinet provides corrosion protection
- Crimped aluminized steel primary heat exchanger and AL29-4C stainless steel condensing heat exchanger for longer life
- Time delay off for A/C SEER enhancement
- Upflow/horizontal-left and counterflow/horizontal-right applications
- Direct vent or non-direct vent systems; concentric vent termination approved
- Honeywell® Smart Valve™ System with LED diagnostics for easier troubleshooting
- 5 amp fused low voltage circuit protection
- Twinning compatible
- Certified to ANSI and CSA standards
- Electronic air cleaner, humidifier and continuous fan connections
- Three-speed blower motor
- Common LP kit for all Aire-Flo gas furnaces

UNIT SPECIFICATIONS

MODEL NUMBER	EFFICIENCY (AFUE)	HEAT INPUT (BTUH)	LENGTH (INCHES)	WIDTH (INCHES)	HEIGHT (INCHES)
AF90MPE050U2	92.1	50,000	29-1/2	13-1/2	47-3/8
AF90MPB050C3	92.0	50,000	29-1/2	13-1/2	47-3/8
AF90MPE050U3	92.1	50,000	29-1/2	13-1/2	47-3/8
AF90MPE075U2	92.1	75,000	29-1/2	13-1/2	47-3/8
AF90MPB075C3	92.0	75,000	29-1/2	13-1/2	47-3/8
AF90MPE075U3	92.1	75,000	29-1/2	13-1/2	47-3/8
AF90MPE100U3	92.1	100,000	29-1/2	17	47-3/8
AF90MPB100C4	92.0	100,000	29-1/2	17	47-3/8
AF90MPE100U4	92.1	100,000	29-1/2	17	47-3/8
AF90MPE125U5	92.1	125,000	29-1/2	20-1/2	47-3/8
AF90MPB125C5	92.0	125,000	29-1/2	20-1/2	47-3/8

U = Upflow/Horizontal Left C = Counterflow/Horizontal Right

DUE TO OUR POLICY OF CONTINUOUS IMPROVEMENT, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE



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MODEL NUMBER DESCRIPTION

AF	90	MP	
			Multi-Position
			90 AFUE – High Efficiency
			Aire-Flo

UNIT SPECIFICATIONS – Upflow

	AF90MPE050U2	AF90MPE050U3	AF90MPE075U2	AF90MPE075U3
GAS	NATURAL (LP WITH CONVERSION KIT)			
INPUT RATE (BTU per hour)	50,000	50,000	75,000	75,000
HEATING CAPACITY (BTU per hour)	46,000		70,000	
AFUE (Isolated Comb. System)	92.1%			
TEMPERATURE RISE	40-70° F	35-65° F	45-75° F	40-70° F
VOLTS / PHASE / HERTZ	115 / 1 / 60			
STATIC PRESSURE	CERTIFIED FOR 0.50" W.C. MAXIMUM EXTERNAL STATIC			
BLOWER MOTOR HORSEPOWER	1/4	1/3	1/4	1/3
BLOWER WHEEL SIZE (dia x width)	10" X 6"			
NUMBER OF HEAT EXCHANGERS	2		3	
FLUE AND AIR INLET PIPE - DIAMETER <i>(Schedule 40 PVC, CPVC or ABS used on all)</i>	2"			
LIMIT CONTROL, SNAP DISK STYLE	190° F	190° F	180° F	170° F
GAS VALVE / IGNITION CONTROL	DIRECT 115V HSI SYSTEM (1/2 X 1/2)*			
TRANSFORMER	40 VA. 115 VAC PRIMARY, 24 VAC SECONDARY, FOOT-MOUNTED			
MAXIMUM OUTLET TEMPERATURE	180° F			
SHIPPING WEIGHTS	152 LBS		158 LBS	
	AF90MPE100U3	AF90MPE100U4	AF90MPE125U5	
GAS	NATURAL (LP WITH CONVERSION KIT)			
INPUT RATE (BTU per hour)	100,000	100,000	125,000	
HEATING CAPACITY (BTU per hour)	93,000		116,000	
AFUE (Isolated Comb. System)	92.1%			
TEMPERATURE RISE	40-70° F		45-75° F	
VOLTS / PHASE / HERTZ	115 / 1 / 60			
STATIC PRESSURE (certified max)	CERTIFIED FOR 0.50" W.C. MAXIMUM EXTERNAL STATIC			
BLOWER MOTOR HORSEPOWER	1/3	1/2	3/4	
BLOWER WHEEL SIZE (dia x width)	10" X 9"	12" X 9"	12" X 12"	
NUMBER OF HEAT EXCHANGERS	4		5	
FLUE AND AIR INLET PIPE - DIAMETER <i>(Schedule 40 PVC, CPVC or ABS used on all)</i>	2"			
LIMIT CONTROL, SNAP DISK STYLE	160° F	170° F		
GAS VALVE / IGNITION CONTROL	DIRECT 115V HSI SYSTEM (1/2 X 1/2)*			
TRANSFORMER	40 VA. 115 VAC PRIMARY, 24 VAC SECONDARY, FOOT-MOUNTED			
MAXIMUM OUTLET TEMPERATURE	180° F			
SHIPPING WEIGHTS	187 LBS		217 LBS	

NOTES: **U** = Upflow (AF90MPE050U2)

AIR FLOW DATA – Upflow



MODEL NUMBER	BLOWER SPEED	EXTERNAL STATIC									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
AF90MPE050U2 <i>(10 X 6 WHEEL)</i> <i>(1/4 HP MOTOR)</i>	LOW	677	665	646	618	582	538	486	425	357	280
	MED	857	845	828	798	757	706	644	572	490	397
	HIGH	1111	1081	1047	1008	966	920	870	815	757	695
AF90MPE050U3 <i>(10 X 6 WHEEL)</i> <i>(1/3 HP MOTOR)</i>	LOW	614	622	621	610	590	561	522	474	417	350
	MED	966	975	972	956	928	888	835	770	693	603
	HIGH	1324	1330	1317	1286	1236	1167	1080	974	850	707
AF90MPE075U2 <i>(10 X 6 WHEEL)</i> <i>(1/4 HP MOTOR)</i>	LOW	1111	1087	1048	995	928	846	751	640	516	377
	MED	1180	1164	1132	1083	1018	937	840	726	596	450
	HIGH	1284	1259	1222	1172	1110	1035	948	848	736	611
AF90MPE075U3 <i>(10 X 6 WHEEL)</i> <i>(1/3 HP MOTOR)</i>	LOW	961	969	964	946	915	871	813	743	659	562
	MED	1458	1405	1345	1278	1205	1125	1038	944	843	735
	HIGH	1571	1544	1502	1446	1376	1291	1192	1078	950	807
AF90MPE100U3 <i>(12 X 8 WHEEL)</i> <i>(1/3 HP MOTOR)</i>	LOW	1018	1017	1005	980	944	896	836	765	681	586
	MED	1312	1294	1262	1216	1157	1084	998	898	784	657
	HIGH	1600	1571	1526	1463	1383	1286	1172	1040	892	726
AF90MPE100U4 <i>(12 X 8 WHEEL)</i> <i>(1/2 HP MOTOR)</i>	LOW	1223	1211	1194	1171	1142	1107	1067	1021	970	913
	MED	1513	1493	1466	1433	1393	1347	1295	1236	1170	1098
	HIGH	1825	1801	1767	1724	1672	1610	1539	1459	1369	1270
AF90MPE125U5 <i>(12 X 12 WHEEL)</i> <i>(3/4 HP MOTOR)</i>	LOW	1410	1394	1368	1332	1287	1232	1167	1092	1007	912
	MED	1853	1799	1742	1680	1614	1544	1470	1391	1309	1222
	HIGH	2427	2331	2232	2131	2028	1922	1814	1703	1590	1474

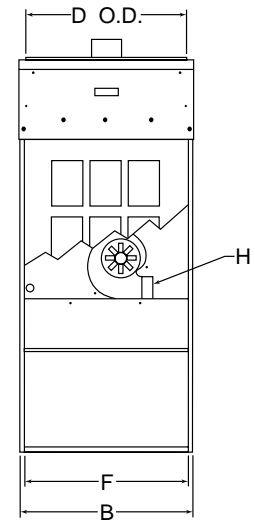
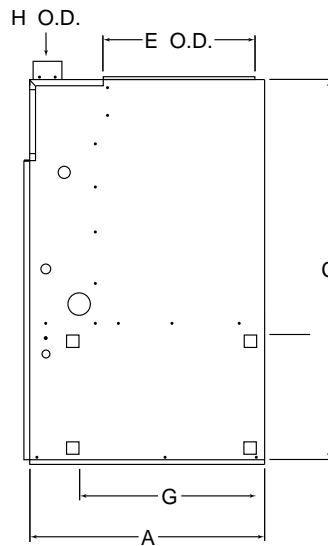
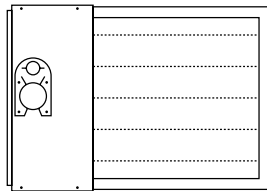
MAXIMUM VENT LENGTHS – Upflow

APPLICATION	(Allowable Max. Vent Lengths of 2" Dia. PVC, CPVC or ABS Sched. 40 Pipe)				
	NUMBER OF ELBOWS				
	1	2	3	4	5
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPE050U2, AF90MPE050U3</i> <i>AF90MPE075U2, AF90MPE075U3</i>	60	58	55	53	50
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPE100U3, AF90MPE100U4</i>	35	30	24	18	12
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPE125U5</i>	20	15	9	4	—
APPLICATION	(Allowable Max. Vent Lengths of 3" Dia. PVC, CPVC or ABS Sched. 40 Pipe)				
	NUMBER OF ELBOWS				
	1	2	3	4	5
NON-DIRECT VENT (1 PIPE) SYSTEM <i>AF90MPE050U2, AF90MPE050U3</i> <i>AF90MPE075U2, AF90MPE075U3</i>	80	76	73	70	65
DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPE100U3, AF90MPE100U4,</i> <i>AF90MPE125U5</i>	65	61	58	55	50

GENERAL LAYOUT – Upflow

MODEL NUMBER	UNIT DIMENSIONS			DUCT SUPPLY OPENING		DUCT RETURN CUT OUT		AIR INLET & VENT PIPE DIA.
	LENGTH	WIDTH	HEIGHT	D	E	F	G	H
	A	B	C					
AF90MPE050U2 AF90MPE050U3	29-1/2"	13-1/2"	47-3/8"	11-1/2"	18-15/16"	12"	21-5/8"	2"
AF90MPE075U2 AF90MPE075U3	29-1/2"	13-1/2"	47-3/8"	11-1/2"	18-15/16"	12"	21-5/8"	2"
AF90MPE100U3 AF90MPE100U4	29-1/2"	17"	47-3/8"	15"	18-15/16"	15-1/2"	21-5/8"	2"
AF90MPE125U5	29-1/2"	20-1/2"	47-3/8"	18-1/2"	18-15/16"	19"	21-5/8"	2"

UPFLOW / HORIZONTAL LEFT



UNIT SPECIFICATIONS – Counterflow



	AF90MPB050C3	AF90MPB075C3	AF90MPB100C4	AF90MPB125C5
GAS	NATURAL (LP WITH CONVERSION KIT)			
INPUT RATE (BTU per hour)	50,000	75,000	100,000	125,000
AFUE (Isolated Comb. System)	92%			
TEMPERATURE RISE	35-65° F	40-70° F		
VOLTS / PHASE / HERTZ	115 / 1 / 60			
STATIC PRESSURE	CERTIFIED FOR 0.50" W.C. MAXIMUM EXTERNAL STATIC			
BLOWER MOTOR HORSEPOWER	1/3		1/2	3/4
BLOWER WHEEL SIZE (dia x width)	10" X 6"		12" X 9"	12" X 12"
NUMBER OF HEAT EXCHANGERS	2	3	4	5
FLUE AND AIR INLET PIPE - DIAMETER <i>(Schedule 40 PVC, CPVC or ABS used on all)</i>	2"		3"	
LIMIT CONTROL, SNAP DISK STYLE	150° F	170° F		
GAS VALVE / IGNITION CONTROL	HONEYWELL SV9501 SMART VALVE SYSTEM (1/2 X 1/2)*			
TRANSFORMER	40 VA. 115 VAC PRIMARY, 24 VAC SECONDARY, FOOT-MOUNTED			
MAXIMUM OUTLET TEMPERATURE	180° F			
SHIPPING WEIGHT	152 LBS	158 LBS	187 LBS	217 LBS

*As of April 17, 1998 – date code 9816

NOTES: C = Counterflow (AF90MPB050C3)

AIR FLOW DATA – Counterflow

MODEL NUMBER	BLOWER SPEED	EXTERNAL STATIC									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
AF90MPB050C3 <i>(10 X 6 WHEEL)</i> <i>(1/3 HP MOTOR)</i>	LOW	1080	1060	1030	1000	965	905	840	765	655	525
	MED	1330	1280	1225	1175	1110	1040	965	875	770	630
	HIGH	1490	1420	1360	1285	1205	1125	1070	985	880	750
AF90MPB075C3 <i>(10 X 6 WHEEL)</i> <i>(1/3 HP MOTOR)</i>	LOW	1080	1060	1030	1000	965	905	840	765	655	525
	MED	1330	1280	1225	1175	1110	1040	965	875	770	630
	HIGH	1490	1420	1360	1285	1205	1125	1070	985	880	750
AF90MPB100C4 <i>(12 X 9 WHEEL)</i> <i>(1/2 HP MOTOR)</i>	LOW	1420	1400	1360	1335	1290	1245	1190	1120	1060	995
	MED	1715	1690	1665	1610	1550	1480	1400	1320	1245	1145
	HIGH	2055	2020	1945	1865	1795	1710	1640	1535	1410	1340
AF90MPB125C5 <i>(12 X 12 WHEEL)</i> <i>(3/4 HP MOTOR)</i>	LOW	1425	1400	1375	1345	1320	1290	1245	1185	1120	1035
	MED	1980	1940	1895	1835	1785	1720	1645	1575	1475	1385
	HIGH	2395	2340	2275	2210	2115	2025	1925	1825	1720	1610

NOTES: 1) Air flow values in cubic feet per minute (CFM), rounded to nearest five (5) CFM
2) Data taken without filters in place

MAXIMUM VENT LENGTHS – Counterflow

APPLICATION	(Allowable Max. Vent Lengths of 2" Dia. PVC, CPVC or ABS Sched. 40 Pipe)				
	NUMBER OF ELBOWS				
	1	2	3	4	5
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPB050C3, AF90MPB075C3</i>	60	58	55	53	50
APPLICATION	(Allowable Max. Vent Lengths of 3" Dia. PVC, CPVC or ABS Sched. 40 Pipe)				
	NUMBER OF ELBOWS				
	1	2	3	4	5
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPB050C3, AF90MPB075C3</i>	80	76	73	70	65
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPB100C4</i>	65	61	58	55	50
NON-DIRECT VENT (1 PIPE) SYSTEM & DIRECT VENT (2 PIPE) SYSTEM <i>AF90MPB125C5</i>	50	46	43	39	35

GENERAL LAYOUT – Counterflow

MODEL NUMBER	UNIT DIMENSIONS			DUCT SUPPLY OPENING	DUCT RETURN CUT OUT	AIR INLET & VENT PIPE DIA.		
	LENGTH	WIDTH	HEIGHT					
	A	B	C	D	E	F	G	H
AF90MPB050C3	29-1/2"	13-1/2"	47-3/8"	11-1/2"	18-15/16"	12"	21-5/8"	2"
AF90MPB075C3	29-1/2"	13-1/2"	47-3/8"	11-1/2"	18-15/16"	12"	21-5/8"	2"
AF90MPB100C4	29-1/2"	17"	47-3/8"	15"	18-15/16"	15-1/2"	21-5/8"	3"
AF90MPB125C5	29-1/2"	20-1/2"	47-3/8"	18-1/2"	18-15/16"	19"	21-5/8"	3"

COUNTERFLOW / HORIZONTAL RIGHT

