

A98MV

PRODUCT SPECIFICATIONS

MODULATING VARIABLE SPEED GAS FURNACE

FORM NO. A98MV-100 (11/2023)



CONTROLS

- Communicating control enabled
- Modulating gas valve
- Thermostat flexibility: works with the Comfort Sync® T-Stat or a conventional 24V T-Stat
- Self diagnostics saves last 10 fault codes regardless of power interruption

VENTING

- Category 4 direct vent appliance (2 pipe only)

INSTALLATION FEATURES

- Left or right utility connections
- Zero step horizontal conversion
- Removable floor base for bottom return air

WARRANTY

10 year limited parts warranty / lifetime heat exchanger warranty available. See limited warranty document for details.

California Only

If installed in South Coast Air Quality Management District (SCAQMD) only: This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

If installed in San Joaquin Valley Air Pollution Control District (SJVAPCD) only: This furnace does not meet the SJVAPCD Rule 4905 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450.

COMFORT SYNC™
COMMUNICATING THERMOSTAT ENABLED

CONFIGURATIONS

- Upflow / Horizontal
- Downflow

HEAT EXCHANGER DESIGN

- 409 stainless steel primary heat exchanger with crimped non-welded construction
- AL 29-4C stainless steel secondary heat exchanger

CABINET DESIGN

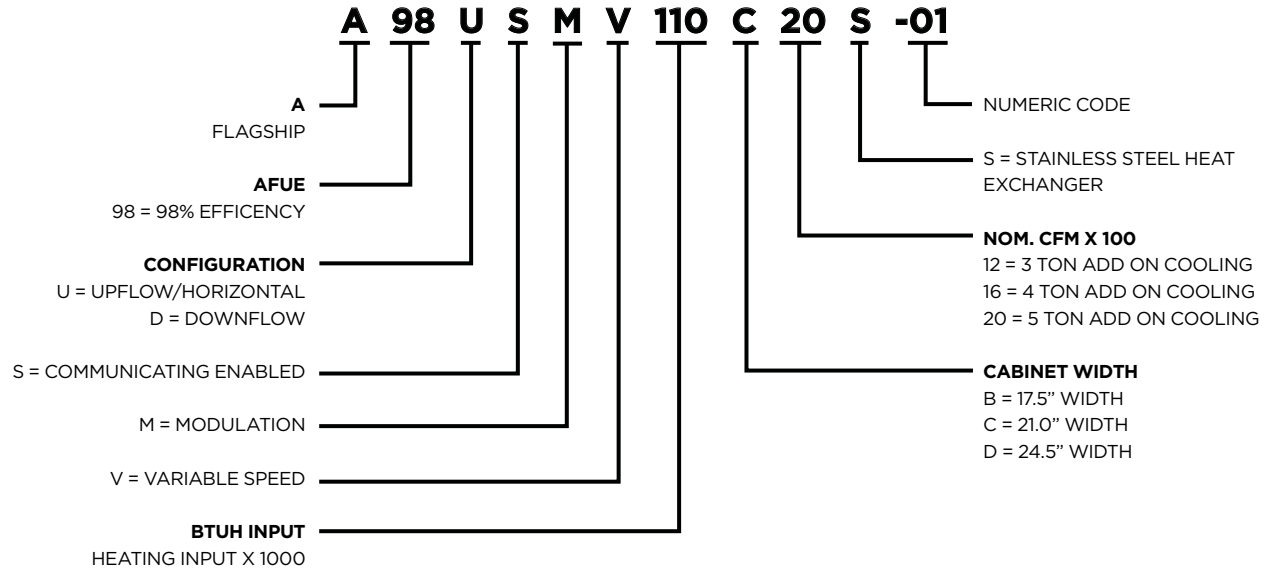
- Compact 33" height
- Standardized widths for easy coil fit

AIR DELIVERY SYSTEM

- ECM variable speed blower motor
- Easily removable slide out blower design



MODEL NUMBER GUIDE



PHYSICAL AND ELECTRICAL DATA

	Model	Input (Btuh)	Output * (Btuh)	AFUE (ICS)	Nominal* Cooling Capacity	Gas Inlet (in.)	Volts-Hertz-Phase	Max. Time Delay Breaker or Fuse	Nominal F.L.A.	Trans. (V.A.)	Approx. Shipping Weight (lbs.)
UPFLOW / HORIZONTAL	A98USMV070B12S	66,000	64,000	98.0%	3 Tons	1/2	120-60-1	15	7.7	40	132
	A98USMV090C12S	88,000	85,000	98.0%	3 Tons	1/2	120-60-1	15	7.7	40	146
	A98USMV090C16S	88,000	85,000	98.0%	4 Tons	1/2	120-60-1	15	10.1	40	153
	A98USMV090C20S	88,000	85,000	98.0%	5 Tons	1/2	120-60-1	20	12.8	40	156
	A98USMV110C20S	110,000	106,000	98.0%	5 Tons	1/2	120-60-1	20	12.8	40	164
	A98USMV135D20S	132,000	127,000	98.0%	5 Tons	1/2	120-60-1	20	12.8	40	179

Note: For vent length and clearances to combustibles, please reference installation instructions.
* At full capacity

BLOWER PERFORMANCE DATA: BOTTOM INLET

	Model	Motor Size (hp)	Blower Size	Temp Rise F°	Heating CFM @ 0" - 0.8" w.c.				Cooling Stages	Speed Adjustment	Cooling CFM @ 0" - 0.8" w.c.			
					**	35% Input	70% Input	100% Input			Low	Medium Low	Medium High	High Default
					UPFLOW / HORIZONTAL									
A98USMV070B12S	1/2 HP	10 x 9	50 - 80 Max. Input	+15%	489	833	1128	2nd Stage	+10%	862	1063	1218	1369	
				+7.5%	450	772	1048		Default	810	962	1130	1269	
				Default	410	710	967		-10%	707	841	1007	1140	
			35 - 65 Min. Input	+10%	604	740	843	971						
				Default	558	668	770	855						
				-10%	504	603	683	793						
A98USMV090C12S	1/2 HP	10 x 9	60 - 90 Max. Input	+15%	687	1014	1295	2nd Stage	+10%	879	1040	1212	1362	
				+7.5%	654	953	1209		Default	803	946	1104	1246	
				Default	621	891	1122		-10%	721	842	972	1117	
			35 - 65 Min. Input	+10%	626	710	832	952						
				Default	569	672	764	862						
				-10%	524	612	687	785						
A98USMV090C16S	3/4 HP	11 x 11	50 - 80 Max. Input	+15%	769	1234	1633	2nd Stage	+10%	1168	1379	1583	1771	
				+7.5%	713	1155	1534		Default	1079	1267	1444	1645	
				Default	656	1075	1434		-10%	938	1148	1324	1469	
			35 - 65 Min. Input	+10%	843	1007	1159	1315						
				Default	780	915	1047	1190						
				-10%	693	838	959	1070						
A98USMV090C20S	1 HP	11 x 11	50 - 80 Max. Input	+15%	583	1159	1653	2nd Stage	+10%	1385	1593	1818	2019	
				+7.5%	540	1085	1553		Default	1226	1463	1647	1884	
				Default	497	1012	1453		-10%	1063	1320	1504	1675	
			35 - 65 Min. Input	+10%	933	1054	1274	1466						
				Default	836	978	1121	1336						
				-10%	740	868	1010	1152						
A98USMV110C20S	1 HP	11 x 11	50 - 80 Max. Input	+15%	767	1424	1988	2nd Stage	+10%	1312	1560	1744	1955	
				+7.5%	738	1349	1874		Default	1219	1405	1569	1796	
				Default	708	1274	1759		-10%	1075	1272	1428	1634	
			35 - 65 Min. Input	+10%	937	1064	1247	1407						
				Default	864	972	1146	1282						
				-10%	790	888	1025	1167						
A98USMV135D20S	1 HP	11 x 11	55 - 85 Max. Input	+15%	949	1534	2035	2nd Stage	+10%	1353	1567	1751	1994	
				+7.5%	879	1426	1895		Default	1202	1448	1616	1828	
				Default	808	1317	1754		-10%	1080	1290	1472	1668	
			35 - 65 Min. Input	+10%	935	1074	1260	1450						
				Default	834	983	1116	1306						
				-10%	732	867	1023	1145						

** See installation instructions for proper blower setup

BLOWER PERFORMANCE DATA: SIDE INLET

	Model	Motor Size (hp)	Blower Size	Temp Rise F°	Heating CFM @ 0" - 0.8" w.c.				Cooling Stages	Speed Adjustment	Cooling CFM @ 0" - 0.8" w.c.			
					**	35% Input	70% Input	100% Input			Low	Medium Low	Medium High	High Default
					UPFLOW / HORIZONTAL									
UPFLOW / HORIZONTAL	A98USMV070B12S	1/2 HP	10 x 9	50 - 80 Max. Input	+15%	484	812	1093	2nd Stage	+10%	840	1054	1208	1357
					+7.5%	446	756	1022		Default	752	946	1130	1231
					Default	407	700	951		-10%	688	805	991	1114
				35 - 65 Min. Input	+10%	593	706	805	959					
					Default	543	642	729	824					
					-10%	503	584	665	720					
	A98USMV090C12S	1/2 HP	10 x 9	60 - 90 Max. Input	+15%	657	971	1240	2nd Stage	+10%	843	1017	1168	1300
					+7.5%	631	926	1178		Default	772	912	1054	1193
					Default	605	880	1116		-10%	698	799	946	1111
				35 - 65 Min. Input	+10%	610	707	797	921					
					Default	561	643	718	811					
					-10%	526	605	667	729					
	A98USMV090C16S	3/4 HP	11 x 11	50 - 80 Max. Input	+15%	747	1204	1595	2nd Stage	+10%	1140	1341	1526	1728
					+7.5%	698	1127	1495		Default	1043	1235	1398	1566
					Default	649	1051	1395		-10%	913	1124	1279	1402
				35 - 65 Min. Input	+10%	823	1009	1135	1292					
					Default	758	882	1026	1151					
					-10%	684	816	928	1068					
	A98USMV090C20S	1 HP	11 x 11	50 - 80 Max. Input	+15%	609	1136	1588	2nd Stage	+10%	1335	1559	1719	1986
					+7.5%	551	1059	1496		Default	1173	1433	1568	1811
					Default	492	983	1403		-10%	1049	1283	1451	1603
				35 - 65 Min. Input	+10%	911	1043	1227	1434					
					Default	805	960	1087	1296					
					-10%	700	840	991	1115					
A98USMV110C20S	1 HP	11 x 11	50 - 80 Max. Input	+15%	733	1194	1747	2nd Stage	+10%	1270	1519	1712	1899	
				+7.5%	708	1139	1657		Default	1170	1363	1555	1774	
				Default	683	1085	1566		-10%	1059	1218	1401	1581	
			35 - 65 Min. Input	+10%	918	1053	1198	1366						
				Default	820	964	1095	1231						
				-10%	722	852	987	1116						
A98USMV135D20S	1 HP	11 x 11	55 - 85 Max. Input	+15%	927	1505	2001	2nd Stage	+10%	1337	1550	1720	1974	
				+7.5%	844	1398	1873		Default	1194	1416	1608	1781	
				Default	760	1290	1744		-10%	1076	1282	1437	1628	
			35 - 65 Min. Input	+10%	938	1070	1236	1418						
				Default	837	985	1114	1296						
				-10%	736	870	1010	1139						

BLOWER PERFORMANCE DATA: SIDE INLET WITH RETURN AIR BASE

	Model	Motor Size (hp)	Blower Size	Temp Rise F°	Heating CFM @ 0" - 0.8" w.c.				Cooling Stages	Speed Adjustment	Cooling CFM @ 0" - 0.8" w.c.			
					**	35% Input	70% Input	100% Input			Low	Medium Low	Medium High	High Default
					UPFLOW / HORIZONTAL									
UPFLOW / HORIZONTAL	A98USMV070B12S	1/2 HP	10 x 9	50 - 80 Max. Input	+15%	471	805	1091	2nd Stage	+10%	857	1049	1206	1354
					+7.5%	435	751	1021		Default	791	946	1093	1255
					Default	399	696	951		-10%	722	845	987	1131
				35 - 65 Min. Input	+10%	596	717	816	950					
					Default	521	657	755	840					
					-10%	494	597	672	747					
	A98USMV090C12S	1/2 HP	10 x 9	60 - 90 Max. Input	+15%	677	988	1254	2nd Stage	+10%	852	999	1166	1305
					+7.5%	639	923	1167		Default	776	907	1050	1206
					Default	600	858	1079		-10%	712	802	947	1074
				35 - 65 Min. Input	+10%	605	715	812	934					
					Default	571	662	735	820					
					-10%	530	602	673	725					

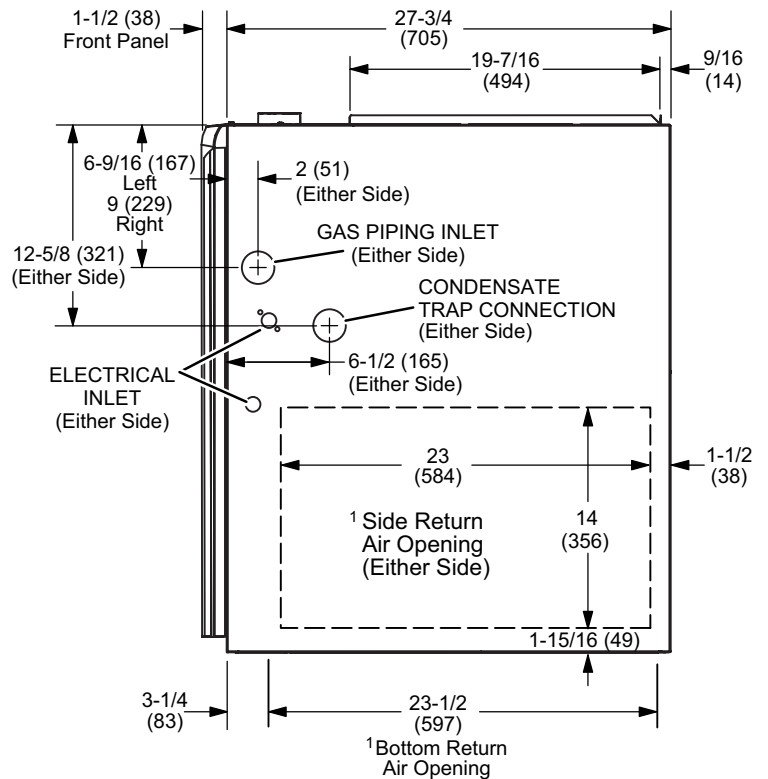
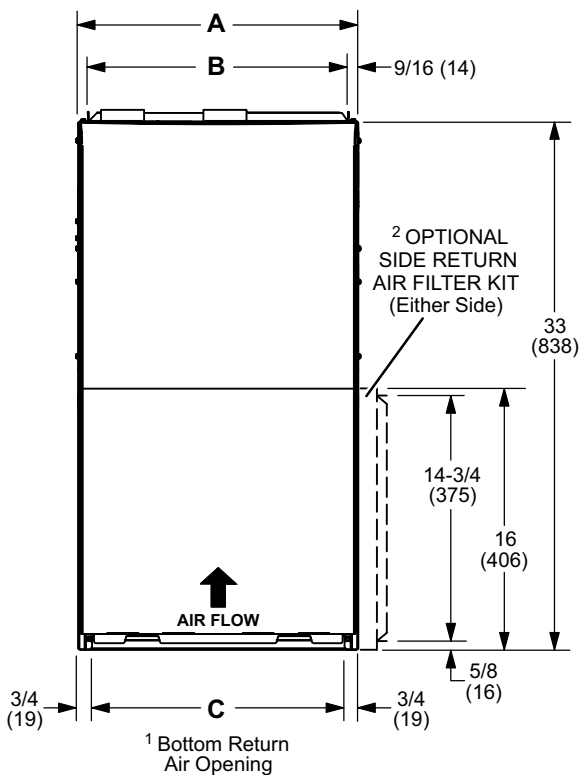
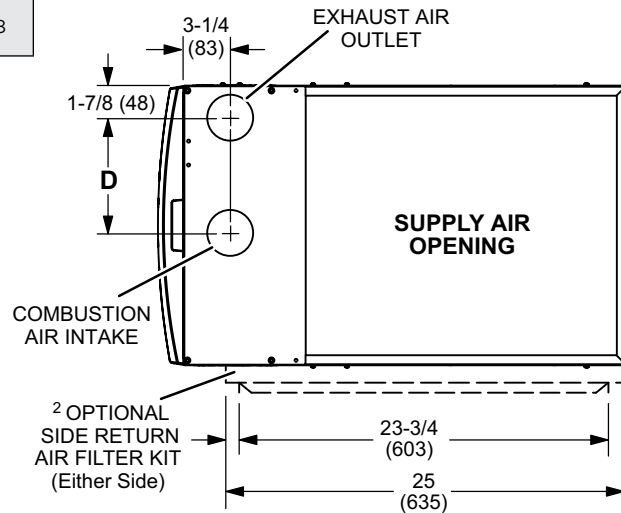
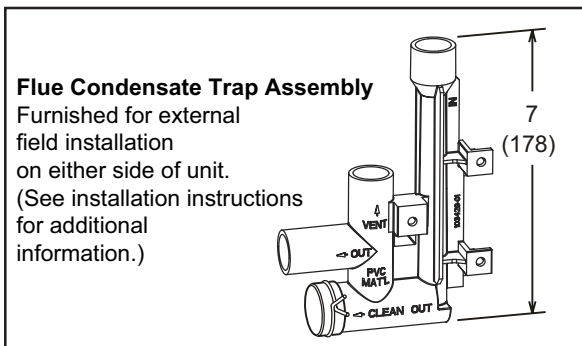
** See installation instructions for proper blower setup

BLOWER PERFORMANCE DATA: SIDE INLET WITH RETURN AIR BASE

	Model	Motor Size (hp)	Blower Size	Temp Rise F°	Heating CFM @ 0" - 0.8" w.c.				Cooling Stages	Speed Adjustment	Cooling CFM @ 0" - 0.8" w.c.			
					**	35% Input	70% Input	100% Input			Low	Medium Low	Medium High	High Default
UPFLOW / HORIZONTAL	A98USMV090C16S	3/4 HP	11 x 11	50 - 80 Max. Input	+15%	764	1213	1597	2nd Stage	+10%	1162	1360	1533	1742
					+7.5%	705	1132	1499		Default	1064	1240	1400	1594
					Default	645	1052	1401		-10%	928	1133	1298	1441
				35 - 65 Min. Input	+10%	844	955	1124	1st Stage	+10%	844	955	1124	1280
					Default	775	910	1011		Default	775	910	1011	1173
					-10%	695	816	932		-10%	695	816	932	1045
	A98USMV090C20S	1 HP	11 x 11	60 - 90 Max. Input	+15%	611	1138	1589	2nd Stage	+10%	1329	1560	1740	1982
					+7.5%	554	1060	1494		Default	1177	1414	1586	1807
					Default	497	983	1399		-10%	1044	1261	1432	1619
				35 - 65 Min. Input	+10%	913	1037	1230	1st Stage	+10%	913	1037	1230	1415
					Default	827	953	1088		Default	827	953	1088	1278
					-10%	741	855	995		-10%	741	855	995	1117
	A98USMV110C20S	1 HP	11 x 11	50 - 80 Max. Input	+15%	805	1419	1945	2nd Stage	+10%	1268	1487	1726	1913
					+7.5%	729	1329	1843		Default	1158	1369	1568	1764
					Default	652	1238	1741		-10%	1030	1224	1393	1575
				35 - 65 Min. Input	+10%	918	1022	1205	1st Stage	+10%	918	1022	1205	1371
					Default	839	955	1084		Default	839	955	1084	1235
					-10%	760	865	984		-10%	760	865	984	1109
	A98USMV135D20S	1 HP	11 x 11	50 - 80 Max. Input	+15%	909	1487	1983	2nd Stage	+10%	1303	1536	1687	1975
					+7.5%	828	1382	1858		Default	1164	1380	1584	1762
Default					746	1277	1732	-10%		1065	1252	1404	1604	
35 - 65 Min. Input				+10%	918	1061	1214	1st Stage	+10%	918	1061	1214	1382	
				Default	829	960	1091		Default	829	960	1091	1265	
				-10%	739	858	991		-10%	739	858	991	1116	

DIMENSIONS (IN.)

	Model	A	B	C	D
UPFLOW/HORIZONTAL	A98USMV070B12S	17-1/2	16-3/8	16	7-5/8
	A98USMV090C12S	21	19-7/8	19-1/2	9-3/8
	A98USMV090C16S	21	19-7/8	19-1/2	9-3/8
	A98USMV090C20S	21	19-7/8	19-1/2	9-3/8
	A98USMV110C20S	21	19-7/8	19-1/2	9-3/8
	A98USMV135D20S	24-1/2	23-3/8	23	11-1/8



ACCESSORY LIST

Catalog Number	Description
External Filter Rack kits	
1.841018	1 pack (16 x 25)
1.841039	10 pack (16 x 25)
Natural to LP kits	
68W77	Modulating 97/98% (includes gas valve)
68W77	High Altitude > 7500 ft.
Return Air Base	
68W62	17.5" B Width
68W63	21.0" C Width
68W64	24.5" D Width
Night Service Kits	
89W52	Modulating
Horizontal Suspension Kit	
51W10	80% & 90% Kit
Flush Mount Termination (90% Furnaces only) US Only	
51W11	2" & 3" Vent Version
Concentric Vent Kit (90% Furnaces only) US Only	
71M80	1-1/2" Vent Version
69M29	2" Vent Version
60L46	3" Vent Version
Comfort Sync® Controls	
1.841226	Comfort Sync® A3 Thermostat
1.851399	Comfort Sync® Zoning Controller
1.851422	Comfort Sync® Zone Sensor

For vent length and clearances to combustibles, please reference installation instructions.



1-800-448-5872

All specifications and illustrations subject to change without notice and without incurring obligations.