# G9MVE

## Product Specifications

# Up to 96% AFUE, Communicating, Two–Stage Gas Furnace

## EASIER TO SELL

- Up to 96% AFUE in upflow and horizontal positions 95% AFUE in downflow position
- Series 'A2' (or greater) approved for Twinning applications (0601714, 0801716, 1002120 and 1202422) with accessory (order separately)
- Series 'A4' (or greater) allow 15 Amp breaker (0802120, 1002120, and 1202422) with accessory (order separately)
- Two–stage heating operation
- Observer® Communicating Control System
- Xtra SEER Variable speed ECM blower motor
- Supports single– and two–stage cooling units
- Dehumidification feature in cooling
- Low NOx units are designed for California installations and meet 40 ng/J NOx emissions. Can be installed in air quality management districts with a 40 ng/J NOx emissions requirement.
- Cabinet air leakage less than 2.0% at 1.0 in. W.C. and cabinet air leakage less than 1.4% at 0.5 in. W.C. when tested in accordance with ASHRAE standard 193

## TOUGHER

- Flame roll–out sensors standard
- Adjustable heating blower OFF delay
- Factory set blower ON delay
- RPJ® primary heat exchanger
- Stainless steel secondary heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor

## QUIETER

- Operates quieter at lower heating rates
- Two–speed induced draft combustion blower
- Variable speed ECM blower motor
- Fully insulated steel cabinet

## EASIER TO INSTALL AND SERVICE

- Direct vent (2–pipe), single–pipe venting or ventilated combustion air
- 24 VAC humidifier terminal
- Electronic air cleaner terminal
- 35" (889mm) high, for ease of installation
- Innovative knobs for easy door removal and secure attachment
- Factory shipped for natural gas, with propane gas conversion kits available
- Four position – upflow/downflow/horizontal (left/right) installation
- At least twelve different venting configurations
- Through the casing flue pipe for counterflow or horizontal applications with accessory (order separately)
- Self–configuring and communicating control
- Concentric vent available
- Slide out heat exchanger assembly and blower assembly

## LIMITED WARRANTY *

- 10 year No Hassle Replacement™ limited warranty
- Lifetime heat exchanger limited warranty with timely registration
- 5 year parts limited warranty
  - With timely registration, an additional 5 year parts limited warranty

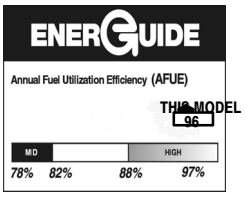
* For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.

**TSTAT0201CW Recommended (sold separately)**

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

## ⚠ WARNING

**CARBON MONOXIDE POISONING AND FIRE HAZARD**
Failure to follow this warning could result in personal injury, death, and/or property damage.
This furnace is not designed for use in recreation vehicles, manufactured (mobile) homes or outdoors.
Failure to follow this warning could result in personal injury, death, and/or property damage.

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DESIGN CERTIFIED ®

ENERGY STAR PARTNER

CERTIFIED ®

| Model Number | Input (BTUH) | Efficiency AFUE | | ENERGY STAR | Cooling Capacity CFM range @ .5 in. w.c. (125 Pa) | Dimensions H x W x D Inches (Millimeters) | Shipping Wt. Lbs (Kg) |
|---|---|---|---|---|---|---|---|
| | | Upflow/Hz | Downflow | | | | |
| G9MVE0401410 | 40,000 | 96% | 95% | √ | 440–905 | 35 x 14–3/16 x 29–1/2 (889 x 361 x 750) | 121 (54) |
| G9MVE0401712 | 40,000 | 96% | 95% | √ | 385–1065 | 35 x 17–1/2 x 29–1/2 (889 x 445 x 750) | 131 (59) |
| G9MVE0601412 | 60,000 | 95% | 95% | √ | 420–1065 | 35 x 14–3/16 x 29–1/2 (889 x 361 x 750) | 132 (60) |
| G9MVE0601714 | 60,000 | 96% | 95% | √ | 435–1475 | 35 x 17–1/2 x 29–1/2 (889 x 445 x 750) | 142 (64) |
| G9MVE0801716 | 80,000 | 96% | 95% | √ | 555–1610 | 35 x 17–1/2 x 29–1/2 (889 x 445 x 750) | 152 (68) |
| G9MVE0802120 | 80,000 | 96% | 95% | √ | 440–2005 | 35 x 21 x 29–1/2 (889 x 533 x 750) | 156 (71) |
| G9MVE1002120 | 100,000 | 96% | 95% | √ | 405–2005 | 35 x 21 x 29–1/2 (889 x 533 x 750) | 166 (75) |
| G9MVE1202422 | 120,000 | 96% | 95% | √ | 480–2115 | 35 x 24–1/2 x 29–1/2 (889 x 622 x 750) | 190 (86) |

## MODEL NUMBER IDENTIFICATION GUIDE

| DIGIT POSITION | 1 | 2 | 3 | 4 | 5 | 6,7,8 | 9,10 | 11,12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|
| | G | 9 | M | V | E | 060 | 17 | 14 | A | >3 |

- G = Mainline; N = Entry
- 9 = 90+% AFUE — **EFFICIENCY**
- M = Multiposition — **POSITION**
- A = Modulating ECM Variable Speed Blower; V = ECM Variable Speed; X = ECM Blower (Speed Select); S = Single–stage; T = Two–stage — **TYPE**
- C = Communicating; E = Extra AFUE Efficiency; T = Two–Stage — **FEATURE**
- 040 = 40,000 BTU/hr; 060 = 60,000 BTU/hr; 080 = 80,000 BTU/hr; 100 = 100,000 BTU/hr; 120 = 120,000 BTU/hr — **HEAT INPUT**
- 14 = 14–3/16”; 17 = 17–1/2”; 21 = 21”; 24 = 24–1/2” — **CABINET WIDTH**
- 08 = 800 CFM; 10 = 1000 CFM; 12 = 1200 CFM; 14 = 1400 CFM; 16 = 1600 CFM; 20 = 2000 CFM; 22 = 2200 CFM — **NOMINAL MAXIMUM COOLING AIRFLOW @ .5 IN. W.C.**
- SALES (MAJOR) REVISION DIGIT
- ENGINEERING (MINOR) REVISION DIGIT

ECM—Electronically Commutated Motor

## ACCESSORIES PART NUMBER IDENTIFICATION GUIDE

| DIGIT POSITION | 1 | 2 | 3 | 4 | 5, 6, 7 | 8, 9 | 10, 11 |
|---|---|---|---|---|---|---|---|
| | N | A | H | B | 007 | 01 | FF |

- N = Non–Branded — **BRANDING**
- A = Accessory — **PRODUCT GROUP**
- H = Heating — **KIT USAGE**
- A = Original; B = 2nd Generation — **MAJOR SERIES**
- Product Identifier Number
- Package Quantity
- Type of Kit (Example: FF = Filter Kit)

**For California Residents:**
For installation in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, 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

## PHYSICAL DATA

| UNIT SIZE (NATURAL GAS Ratings) | | | 0401410 | 0401712 | 0601412 | 0601714 | 0801716 | 0802120 | 1002120 | 1202422 |
|---|---|---|---|---|---|---|---|---|---|---|
| Input | High Heat | (BTUH) | 40,000 | 40,000 | 60,000 | 60,000 | 80,000 | 80,000 | 100,000 | 120,000 |
| | Low Heat | (BTUH) | 26,000 | 26,000 | 39,000 | 39,000 | 52,000 | 52,000 | 65,000 | 78,000 |
| Output | High Heat | (BTUH) | 39,000 | 39,000 | 58,000 | 58,000 | 78,000 | 78,000 | 97,000 | 117,000 |
| | Low Heat | (BTUH) | 25,000 | 25,000 | 38,000 | 38,000 | 50,000 | 51,000 | 63,000 | 76,000 |
| Efficiency | Upflow/HZ AFUE % (ICS) | | 96.0 | 96.0 | 95.0 | 96.0 | | | | |
| | Downflow AFUE % (ICS) | | 95.0 | | | | | | | |
| Certified Temperature Rise Range ºF (ºC) | | High Heat | 40–70 (22–39) | 40–70 (22–39) | 40–70 (22–39) | 40–70 (22–39) | 40–70 (22–39) | 40–70 (22–39) | 40–70 (22–39) | 40–70 (22–39) |
| | | Low Heat | 30–60 (17–33) | 30–60 (17–33) | 30–60 (17–33) | 30–60 (17–33) | 30–60 (17–33) | 30–60 (17–33) | 30–60 (17–33) | 30–60 (17–33) |

## AIRFLOW CAPACITY AND BLOWER DATA

| UNIT SIZE | | 0401410 | 0401712 | 0601412 | 0601714 | 0801716 | 0802120 | 1002120 | 1202422 |
|---|---|---|---|---|---|---|---|---|---|
| Rated External Static Pressure in. w.c.(kPa) | Heating | .10 (.025) | .10 (.025) | .12 (.030) | .12 (.030) | .15 (.038) | .15 (.038) | .20 (.050) | .20 (.050) |
| | Cooling | .5 (.125) | | | | | | | |
| Airflow Delivery @ Rated ESP (CFM) | High Heating | 815 | 860 | 1120 | 1135 | 1505 | 1555 | 1865 | 2375 |
| | Low Heating | 660 | 660 | 910 | 860 | 1160 | 1200 | 1435 | 1675 |
| | Cooling | 905 | 1065 | 1065 | 1475 | 1610 | 2005 | 2005 | 2115 |
| Cooling Capacity (tons) @ 400, 350 CFM/ton | 400 CFM/ton | 2 | 2.5 | 2.5 | 3.5 | 4 | 5 | 5 | 5 |
| | 350 CFM/ton | 2.5 | 3 | 3 | 4 | 4.5 | 5.5 | 5.5 | 6 |
| Direct–Drive Motor Type | | Electronically Communicated Motor (ECM) | | | | | | | |
| Direct–Drive Motor HP | | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 1 | 1 | 1 |
| Motor Full Load Amps – Default/ Low Amp Kit[1] | | 6.8 | 6.8 | 6.8 | 10.1 | 10.1 | 13.9/ 10.4 | 13.9/ 10.4 | 13.9/ 10.4 |
| RPM Range | | 400–1200 | | | | | | | |
| Speed Selections | | PWM – Variable | | | | | | | |
| Blower Wheel Dia x Width | inches | 11 x 7 | 11 x 8 | 11 x 7 | 11 x 8 | 11 x 8 | 11 x 10 | 11 x 10 | 11 x 11 |
| Air Filtration System | | Field Supplied | | | | | | | |
| Filter Used for Certified Watt Data | | NAHA00506FB | | | | | NAHA00706FB | | |

## CONTROLS

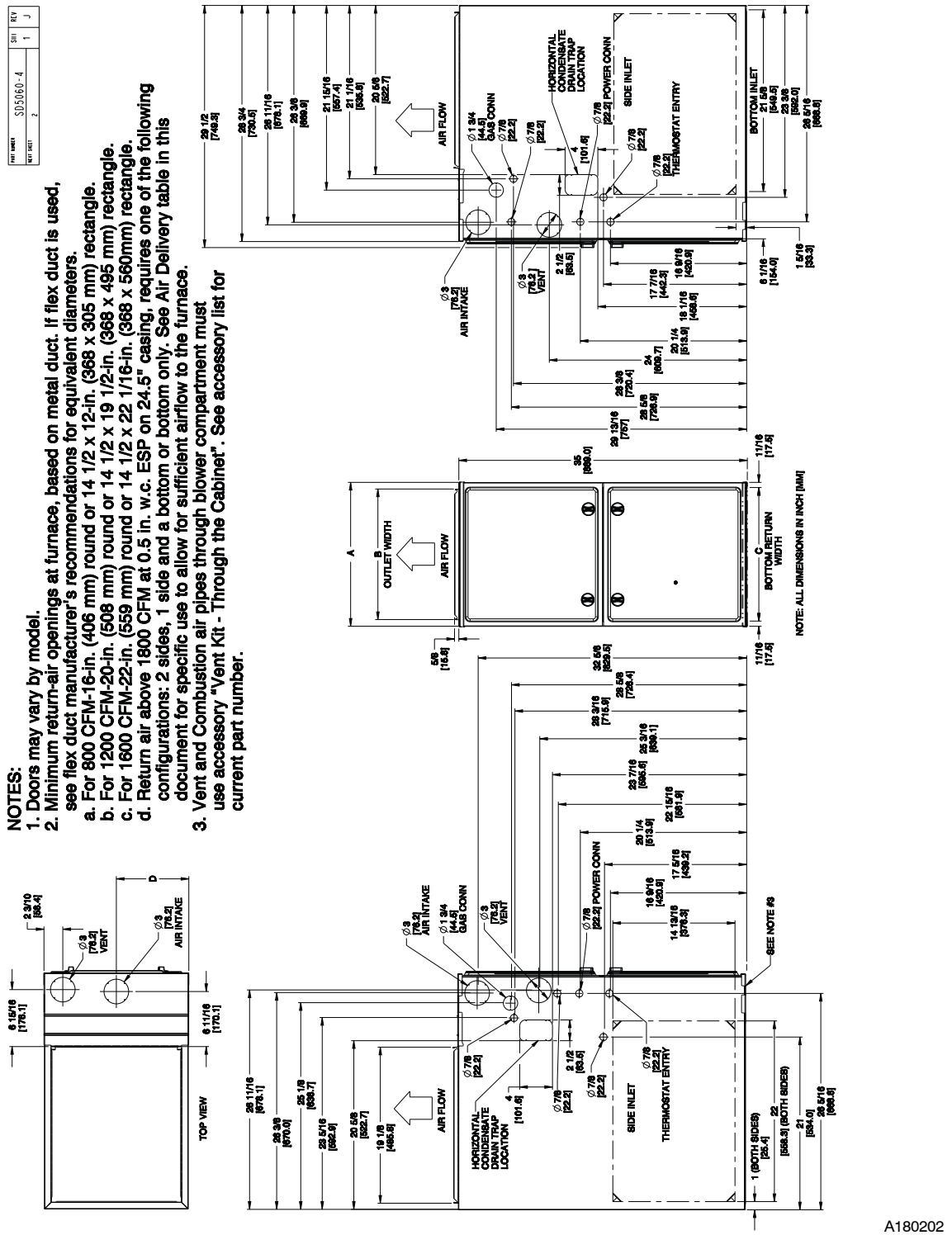
| UNIT SIZE | 0401410 | 0401712 | 0601412 | 0601714 | 0801716 | 0802120 | 1002120 | 1202422 |
|---|---|---|---|---|---|---|---|---|
| Gas Connection Size | 1/2" – NPT | | | | | | | |
| Burners (Monoport) | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 6 |
| Gas Valve (Redundant) Manufacturer | White Rodgers™ | | | | | | | |
| Minimum Inlet Gas pressure in. w.c. (kPa) | 4.5 (1.1) | | | | | | | |
| Maximum Inlet Gas pressure in. w.c. (kPa) | 13.6 (3.4) | | | | | | | |
| Ignition Device | Silicon Nitride | | | | | | | |
| Limit Control | 165 | 180 | 165 | 180 | 170 | 200 | 180 | 160 |
| Heating Blower Control (Heating Off–Delay) | Adjustable: 90, 120, 150, 180 seconds | | | | | | | |
| Cooling Blower Control (Time Delay Relay) | 90 seconds | | | | | | | |
| Communication System | Observer Control System – TSTAT0201CW | | | | | | | |
| Thermostat Connections | R, W/W1, W2, Y1,Y/Y2, DHUM, G, Com24V | | | | | | | |
| Accessory Connections | EAC (115vac); HUM (24vac); 1–Stg. AC (via Y/Y2) | | | | | | | |

## ELECTRICAL DATA – >A3

| UNIT SIZE | | 0401410 | 0401712 | 0601412 | 0601714 | 0801716 | 0802120 | 1002120 | 1202422 |
|---|---|---|---|---|---|---|---|---|---|
| Input Voltage (Volts–Hertz–Phase) | | 115–60–1 | | | | | | | |
| Operating Voltage Range | | 104 – 127 (Min. – Max.) | | | | | | | |
| Maximum Input Amps Default/Low Amp Kit[1] | | 7.5 | 7.5 | 7.6 | 10.9 | 10.9 | 14.7/11.3 | 14.8/11.3 | 14.8/11.3 |
| Unit Ampacity Default/Low Amp Kit[1] | | 10.3 | 10.2 | 10.3 | 14.5 | 14.5 | 19.3/14.9 | 19.4/15.0 | 19.4/15.0 |
| Minimum Wire Size – AWG Default/ Low Amp Kit[1] | | 14 | 14 | 14 | 14 | 14 | 12/ 14 | 12/ 14 | 12/ 14 |
| Maximum Wire Length @ Minimum Wire Size – Feet (M) Default/Low Amp Kit[1] | | 36 (11.0) | 36 (11.0) | 36 (11.0) | 25 (7.6) | 25 (7.6) | 29 / 24 (8.8 / 7.3) | 29 / 24 (8.8 / 7.3) | 29 / 24 (8.8 / 7.3) |
| Maximum Fuse/Circuit Breaker Amps (Time–Delay Type Recommended) Default/ Low Amp Kit[1] | | 15 | 15 | 15 | 15 | 15 | 20/ 15 | 20/ 15 | 20/ 15 |
| Transformer Capacity (24 vac Output) | | 40 VA | | | | | | | |
| External Control Power Available | Heating | 24.3 VA | | | | | | | |
| | Cooling | 34.6 VA | | | | | | | |

[1] Low Amp Kit (NAHA00101PC) allows select furnaces to be installed with a 15 Amp Breaker and 14 AWG wire within the listed wire length. Affected data shown as Default Value/Value with Lower Amp Kit.

## UNIT DIMENSIONS



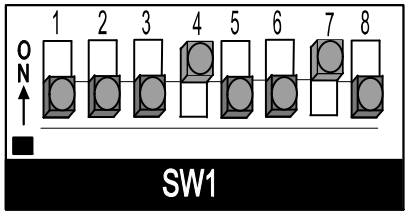

| FURNACE SIZE | A<br>CABINET WIDTH | B<br>OUTLET WIDTH | C<br>BOTTOM INLET WIDTH | D<br>AIR INTAKE | SHIP WT. LB (KG) |
|---|---|---|---|---|---|
| 0401410 | 14–3/16 (361) | 12–1/2 (319) | 12–9/16 (322) | 7–1/8 (181) | 121 (54) |
| 0401712 | 17–1/2 (445) | 15–7/8 (403) | 16 (406) | 8–3/4 (222) | 131 (59) |
| 0601412 | 14–3/16 (361) | 12–1/2 (319) | 12–9/16 (322) | 7–1/8 (181) | 132 (60) |
| 0601714 | 17–1/2 (445) | 15–7/8 (403) | 16 (406) | 8–3/4 (222) | 142 (64) |
| 0801716 | 17–1/2 (445) | 15–7/8 (403) | 16 (406) | 8–3/4 (222) | 152 (68) |
| 0802120 | 21 (533) | 19–3/8 (492) | 19–1/2 (495) | 10–1/2 (267) | 156 (71) |
| 1002120 | 21 (533) | 19–3/8 (492) | 19–1/2 (495) | 10–1/2 (267) | 166 (75) |
| 1202422 | 24–1/2 (622) | 22–7/8 (581) | 23 (584) | 12–1/4 (311) | 190 (86) |

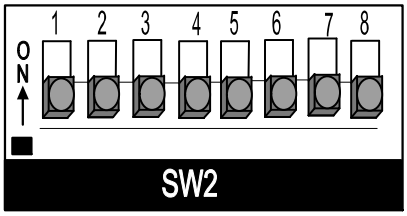
| MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS FOR ALL UNITS | |
|---|---|
| **POSITION** | **CLEARANCE in.(mm)** |
| REAR | 0 |
| FRONT (Combustion air openings in furnace and in structure) | 1 (25) |
| Required for service | *24 (610) |
| All Sides of Supply Plenum | *1 (25) |
| Sides | 0 |
| Vent | 0 |
| Top of Furnace | 1 (25) |

* Consult your local building codes.

## FURNACE SETUP SWITCH DESCRIPTION

### DIP SWITCH CONFIGURATION




**SW1**

| Switch | Description | | Factory |
|---|---|---|---|
| 1 | **Status Code Recovery** - Turn ON to retrieve status codes. | See manual for use. | OFF |
| 2 | **Low Heat Only** - SW1 - 2 OFF allows two-stage operation SW1 - 2 ON for two-stage operation using two-stage TSTAT. | using single stage TSTAT (Adaptive Heat Mode). | OFF |
| 3 | **Low Heat Rise Adjust** - Turn ON to increase Low-Heat | blower airflow by 18%. | OFF |
| 4 | **Comfort/Efficiency Adjust** - Turn ON to decrease low- approximately 10% for maximum comfort. | heat airflow by approximately 7% and high-heat | ON |
| 5 | **CFM per Ton Adjust** - See Airflow Tables in manual for | desired settings. Also see SW2 - 2. | OFF |
| 6 | **Component Self Test** - Turn ON to initiate Component disconnected. Turn OFF when Self Test is completed. | Self Test for troubleshooting assistance when R TSTAT lead is | OFF |
| 7 & 8 | **Blower Off Delay** - See manual or unit wiring diagram for Factory default is 120 Seconds. | settings. Adjustable 90 - 180 seconds. | 7-ON 8-OFF |

**SW2**

| Switch | Description | | Factory |
|---|---|---|---|
| 1 | **Twinning** - When Twinned furnace setup is required, SW2 - 1 SW2-1 ON selects the secondary furnace unit. See kit instructions | OFF selects the main furnace unit. for further details. | OFF |
| 2 | **CFM per Ton Adjust** - See Airflow Tables in manual for | desired settings. Also see SW1 - 5. | OFF |
| 3-5 | **CF Setup Switches** - The Continuous Fan setup switch selects airflow. See Cooling Air Delivery Tables in manual for specific switch | desired CF and low-stage cooling (two-stage units) settings. | ALL OFF |
| 6-8 | **A/C Setup Switches** - The Air Conditioning setup switch units) airflow. See Cooling Air Delivery Tables in manual for specific | selects desired cooling or high-stage cooling (two-stage switch settings. | ALL OFF |

A190033

**BASED ON 350 CFM/TON (Factory Default: SW1–5 = OFF, SW2–2 = OFF)**

| Model Size | 5 4 3 ON | 5 4 3 ON | 5 4 3 ON | 5 4 3 ON | 5 4 3 ON | 5 4 3 ON | 5 4 3 ON | 5 4 3 ON |
|---|---|---|---|---|---|---|---|---|
| 040-10 | 525 | 525 | 700 | 875 | 875 | 875 | 875 | 875 |
| 040-12 | 525 | 525 | 700 | 875 | 1050 | 1050 | 1050 | 1050 |
| 060-12 | 525 | 525 | 700 | 875 | 1050 | 1050 | 1050 | 1050 |
| 060-14 | 525 | 525 | 700 | 875 | 1050 | 1225 | 1225 | 1225 |
| 080-16 | 525 | 525 | 700 | 875 | 1050 | 1225 | 1400 | 1400 |
| 080-20 | 700 | 700 | 875 | 1050 | 1225 | 1400 | 1750 | 1750 |
| 100-20 | 700 | 700 | 875 | 1050 | 1225 | 1400 | 1750 | 1750 |
| 120-22 | 875 | 700 | 875 | 1050 | 1225 | 1400 | 1750 | 1925 |

A190034

## AIR DELIVERY – CFM (with filter)

**COOLING[4] AND HEATING AIR DELIVERY - CFM (Bottom Return[5] with filter)**

**(SW1-5 and SW2–2 set to OFF, except as indicated. See notes 1 and 2)**

| Unit Size | Cooling Switch Settings | | | External Static Pressure (ESP) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SW2-8 | SW2-7 | SW2–6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| **040-10** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 1125 | 1080 | 1020 | 970 | 905 | 855 | 805 | 755 | 700 | 635 |
| *Cooling (SW2)* | OFF | OFF | ON | 615 | 555 | 510 | 475 | 440 | 395 | 355 | 270 | 230 | note 8 |
| | OFF | ON | OFF | 785 | 740 | 695 | 665 | 630 | 590 | 565 | 520 | 485 | 450 |
| | OFF | ON | ON | 990 | 950 | 910 | 875 | 850 | 815 | 770 | 720 | 670 | 615 |
| | ON | OFF | OFF | 1125 | 1080 | 1020 | 970 | 905 | 855 | 805 | 755 | 700 | 635 |
| | ON | OFF | ON | 1125 | 1080 | 1020 | 970 | 905 | 855 | 805 | 755 | 700 | 635 |
| | ON | ON | OFF | 1125 | 1080 | 1020 | 970 | 905 | 855 | 805 | 755 | 700 | 635 |
| | ON | ON | ON | 1125 | 1080 | 1020 | 970 | 905 | 855 | 805 | 755 | 700 | 635 |
| *Clg SW2:* | Maximum Clg Airflow [2] | | | 1125 | 1080 | 1020 | 970 | 905 | 855 | 805 | 755 | 700 | 635 |
| *Heating (SW1)* | High Heat Airflow [3] | | | 815 | 770 | 725 | 695 | 660 | 625 | 595 | 550 | 510 | 475 |
| | Low Heat Airflow [3] | | | 660 | 605 | 560 | 530 | 495 | 450 | 415 | 340 | 300 | note 7 |
| **040-12** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | ON | 575 | 540 | 490 | 435 | 385 | See note 4 | | | | |
| *Cooling (SW2)* | OFF | ON | OFF | 770 | 725 | 685 | 640 | 600 | 560 | 515 | 480 | See note 4 | |
| | OFF | ON | ON | 945 | 910 | 875 | 835 | 800 | 770 | 735 | 695 | 665 | 635 |
| | ON | OFF | OFF | 1140 | 1105 | 1075 | 1040 | 1005 | 970 | 930 | 885 | 835 | 790 |
| | ON | OFF | ON | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 965 | 915 | 860 | 810 |
| | ON | ON | OFF | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 965 | 915 | 860 | 810 |
| | ON | ON | ON | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 965 | 915 | 860 | 810 |
| *Clg SW2:* | Maximum Clg Airflow[2] | | | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 965 | 915 | 860 | 810 |
| *Heating (SW1)* | High Heat Airflow[3] | | | 860 | 825 | 785 | 745 | 705 | 670 | 630 | 595 | 565 | 525 |
| | Low Heat Airflow[3] | | | 650 | 595 | 545 | 500 | 460 | 415 | 365 | 320 | 275 | note 7 |
| **060-12** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 955 | 895 | 815 | 745 |
| *Cooling (SW2)* | OFF | OFF | ON | 605 | 565 | 510 | 455 | 420 | See note 4 | | | | |
| | OFF | ON | OFF | 785 | 750 | 705 | 675 | 630 | 585 | See note 4 | | | |
| | OFF | ON | ON | 955 | 920 | 895 | 860 | 825 | 785 | 755 | 720 | 685 | 650 |
| | ON | OFF | OFF | 1135 | 1110 | 1080 | 1055 | 1020 | 990 | 935 | 880 | 825 | 745 |
| | ON | OFF | ON | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 955 | 895 | 815 | 745 |
| | ON | ON | OFF | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 955 | 895 | 815 | 745 |
| | ON | ON | ON | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 955 | 895 | 815 | 745 |
| *Clg SW2:* | Maximum Clg Airflow[2] | | | 1250 | 1210 | 1165 | 1115 | 1065 | 1015 | 955 | 895 | 815 | 745 |
| *Heating* | High Heat Airflow[3] | | | 1125 | 1100 | 1070 | 1045 | 1010 | 980 | 925 | 875 | 820 | 740 |
| | Low Heat Airflow[3] | | | 900 | 865 | 835 | 800 | 760 | 720 | 690 | 650 | 610 | 580 |
| **060-14** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 1330 | 1295 | 1260 | 1220 | 1190 | 1150 | 1110 | 1075 | 1045 | 1005 |
| *Cooling (SW2)* | OFF | OFF | ON | 725 | 600 | 435 | 280 | 210 | See note 4 | | | | |
| | OFF | ON | OFF | 780 | 725 | 660 | 615 | 540 | See note 4 | | | | |
| | OFF | ON | ON | 975 | 925 | 875 | 835 | 785 | 750 | 690 | 655 | 610 | 570 |
| | ON | OFF | OFF | 1160 | 1120 | 1090 | 1045 | 1010 | 970 | 920 | 885 | 840 | 800 |
| | ON | OFF | ON | 1330 | 1295 | 1260 | 1220 | 1190 | 1150 | 1110 | 1075 | 1045 | 1005 |
| | ON | ON | OFF | 1705 | 1650 | 1595 | 1545 | 1475 | 1415 | 1340 | 1275 | 1200 | 1105 |
| | ON | ON | ON | 1705 | 1650 | 1595 | 1545 | 1475 | 1415 | 1340 | 1275 | 1200 | 1105 |
| *Clg SW2:* | Maximum Clg Airflow [2] | | | 1705 | 1650 | 1595 | 1545 | 1475 | 1415 | 1340 | 1275 | 1200 | 1105 |
| *Heating (SW1)* | High Heat Airflow [3] | | | 1145 | 1105 | 1075 | 1030 | 995 | 955 | 905 | 870 | 825 | 785 |
| | Low Heat Airflow [3] | | | 870 | 820 | 760 | 720 | 655 | 620 | 560 | 525 | 470 | 435 |

| COOLING[4] AND HEATING AIR DELIVERY - CFM (Bottom Return[5] with filter) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit Size | Cooling Switch Settings | | | External Static Pressure (ESP) | | | | | | | | | |
| | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| **080-16** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 1805 | 1765 | 1720 | 1665 | 1610 | 1540 | 1475 | 1400 | 1315 | 1235 |
| *Cooling (SW2)* | OFF | OFF | ON | 775 | 635 | 455 | 230 | See note 8 | | | | | |
| | OFF | ON | OFF | 840 | 740 | 675 | 625 | 555 | See note 4 | | | | |
| | OFF | ON | ON | 995 | 955 | 910 | 860 | 815 | 770 | 720 | 660 | 620 | 585 |
| | ON | OFF | OFF | 1175 | 1140 | 1090 | 1060 | 1025 | 980 | 940 | 905 | 855 | 815 |
| | ON | OFF | ON | 1325 | 1280 | 1245 | 1210 | 1180 | 1140 | 1105 | 1070 | 1025 | 990 |
| | ON | ON | OFF | 1545 | 1515 | 1480 | 1445 | 1410 | 1380 | 1350 | 1315 | 1245 | 1175 |
| | ON | ON | ON | 1805 | 1765 | 1720 | 1665 | 1610 | 1540 | 1475 | 1400 | 1315 | 1235 |
| *Clg SW2:* | Maximum Clg Airflow [2] | | | 1805 | 1765 | 1720 | 1665 | 1610 | 1540 | 1475 | 1400 | 1315 | 1235 |
| *Heating (SW1)* | High Heat Airflow [3] | | | 1520 | 1490 | 1455 | 1420 | 1385 | 1355 | 1320 | 1285 | 1220 | 1155 |
| | Low Heat Airflow [3] | | | 1180 | 1145 | 1095 | 1065 | 1030 | 985 | 945 | 910 | 860 | 820 |
| **080-20** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 1905 | 1870 | 1825 | 1785 | 1750 | 1700 | 1665 | 1625 | 1560 | 1460 |
| *Cooling (SW2)* | OFF | OFF | ON | 950 | 770 | 620 | 515 | 440 | 365 | See note 4 | | | |
| | OFF | ON | OFF | 1015 | 935 | 880 | 825 | 765 | 690 | 625 | 580 | See note 4 | |
| | OFF | ON | ON | 1155 | 1105 | 1040 | 990 | 920 | 875 | 815 | 755 | 710 | 645 |
| | ON | OFF | OFF | 1335 | 1290 | 1245 | 1190 | 1145 | 1085 | 1040 | 990 | 930 | 890 |
| | ON | OFF | ON | 1520 | 1485 | 1435 | 1390 | 1340 | 1300 | 1255 | 1200 | 1160 | 1115 |
| | ON | ON | OFF | 1905 | 1870 | 1825 | 1785 | 1750 | 1700 | 1665 | 1625 | 1560 | 1460 |
| | ON | ON | ON | 2290 | 2230 | 2160 | 2085 | 2005 | 1915 | 1820 | 1730 | 1640 | 1525 |
| *Clg SW2:* | Maximum Clg Airflow [2] | | | 2290 | 2230 | 2160 | 2085 | 2005 | 1915 | 1820 | 1730 | 1640 | 1525 |
| *Heating (SW1)* | High Heat Airflow [3] | | | 1575 | 1535 | 1485 | 1445 | 1400 | 1350 | 1310 | 1260 | 1215 | 1170 |
| | Low Heat Airflow [3] | | | 1230 | 1170 | 1125 | 1065 | 1015 | 955 | 900 | 855 | 795 | 755 |
| **100-20** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 1890 | 1845 | 1800 | 1755 | 1700 | 1655 | 1610 | 1560 | 1510 | 1460 |
| *Cooling (SW2)* | OFF | OFF | ON | 1015 | 825 | 630 | 485 | 405 | 325 | See note 4 | | | |
| | OFF | ON | OFF | 1080 | 895 | 815 | 740 | 690 | 615 | 555 | 475 | See note 4 | |
| | OFF | ON | ON | 1155 | 1080 | 1020 | 940 | 890 | 825 | 785 | 710 | 660 | 590 |
| | ON | OFF | OFF | 1310 | 1260 | 1195 | 1140 | 1075 | 1025 | 970 | 925 | 875 | 810 |
| | ON | OFF | ON | 1520 | 1475 | 1425 | 1365 | 1315 | 1255 | 1210 | 1155 | 1110 | 1055 |
| | ON | ON | OFF | 1890 | 1845 | 1800 | 1755 | 1700 | 1655 | 1610 | 1560 | 1510 | 1460 |
| | ON | ON | ON | 2290 | 2230 | 2160 | 2085 | 2005 | 1915 | 1820 | 1730 | 1640 | 1525 |
| *Clg SW2:* | Maximum Clg Airflow [2] | | | 2290 | 2230 | 2160 | 2085 | 2005 | 1915 | 1820 | 1730 | 1640 | 1525 |
| *Heating (SW1)* | High Heat Airflow [3] | | | 1905 | 1865 | 1825 | 1775 | 1730 | 1685 | 1640 | 1590 | 1545 | 1490 |
| | Low Heat Airflow [3] | | | 1480 | 1435 | 1375 | 1330 | 1265 | 1215 | 1160 | 1115 | 1060 | 1005 |
| **120-22** | | | | | | | | | | | | | |
| *Clg Default:* | OFF | OFF | OFF | 2010 | 1960 | 1910 | 1850 | 1800 | 1750 | 1690 | 1645 | 1565 | 1480 |
| *Cooling (SW2)* | OFF | OFF | ON | 1015 | 805 | 645 | 550 | 480 | See note 4 | | | | |
| | OFF | ON | OFF | 1075 | 975 | 915 | 835 | 765 | See note 4 | | | | |
| | OFF | ON | ON | 1205 | 1135 | 1055 | 1000 | 935 | See note 4 | | | | |
| | ON | OFF | OFF | 1400 | 1330 | 1260 | 1190 | 1145 | 1080 | 1035 | 970 | 905 | 845 |
| | ON | OFF | ON | 1615 | 1550 | 1500 | 1435 | 1370 | 1325 | 1265 | 1215 | 1160 | 1110 |
| | ON | ON | OFF | 2010 | 1960 | 1910 | 1850 | 1800 | 1750 | 1690 | 1645 | 1565 | 1480 |
| | ON | ON | ON | note 8 | 2375 | 2300 | 2205 | 2115 | 2010 | 1890 | 1750 | 1645 | 1550 |
| *Clg SW2:* | Maximum Clg Airflow [2] | | | note 8 | 2375 | 2300 | 2205 | 2115 | 2010 | 1890 | 1750 | 1645 | 1550 |
| *Heating (SW1)* | High Heat Airflow [3] | | | note 8 | 2375 | 2300 | 2205 | 2115 | 2010 | 1890 | 1750 | 1645 | 1550 |
| | Low Heat Airflow [3] | | | 1735 | 1675 | 1625 | 1560 | 1500 | 1455 | 1395 | 1345 | 1285 | 1225 |

**NOTE**:

1. Nominal 350 CFM/ton cooling airflow is delivered with SW1−5 and SW2−2 set to OFF.
   Set both SW1−5 and SW2−2 to ON for +7% airflow (nominal 370 CFM/ton).
   Set SW1−5 to ON and SW2−2 to OFF for +15% airflow (nominal 400 CFM/ton).
   Set SW2−2 to ON and SW1−5 to OFF for −7% airflow (nominal 325 CFM/ton).
   The above adjustments in airflow are subject to motor horspower range/capacity.
2. Maximum cooling airflow is achieved when switches SW2−6, SW2−7, SW2−8 and SW1−5 are set to ON, and SW2−2 is set to OFF.
3. All heating CFM's are when low heat rise adjustment switch (SW1−3) and comfort/efficiency adjustment switch (SW1−4) are both set to OFF.
4. Ductwork must be sized for high−heating CFM within the operational range of ESP. Operation within the blank areas of the chart is not recommended because high−heat operation will be above 1.0 ESP.
5. All airflows of 1880 CFM or less on 21" and 24.5" casing size furnaces are 5% less on side return only installations.
6. Airflows over 1800 CFM require bottom return, two−side return, or bottom and side return. A minimum filter size of 20" x 25" is required.
7. For upflow applications, air entering from one side into both the side of the furnace and a return air base counts as a side and bottom return.
8. Airflow not stable at this ESP.

| ACCESSORIES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PART NUMBER | COMPONENT NAME | DESCRIPTION | 0401410 | 0401712 | 0601412 | 0601714 | 0801716 | 0802120 | 1002120 | 1202422 |
| NAHB001101CT | EXTERNAL TRAP KIT | CONDENSATE TRAP | X | X | X | X | X | X | X | X |
| NAHA00110DA | DRAIN ACCESSORY | 1/2" CPVC TO 3/4" PVC (10 PACK) | X | X | X | X | X | X | X | X |
| NAHA002CV | VENT TERMINATION KIT | 2" CONCENTRIC VENT | X | X | X | X | X | X | X | |
| NAHA001CV | | 3" CONCENTRIC VENT | | | X | X | X | X | X | X |
| NAHA00101VC | INTERNAL VENT KIT | THROUGH THE CABINET | X | X | X | X | X | X | X | X |
| NAHA00301VT | DIRECT VENT TERMINATION KIT | 2" BRACKET | X | X | X | X | X | X | X | |
| NAHA00401VT | | 3" BRACKET | | | X | X | X | X | X | X |
| NAHA00101CK | INLET AIR PIPE COUPLING | COUPLING FOR POLYPRO-PYLENE VENT SYSTEMS | X | X | X | X | X | X | X | X |
| NAHA00101HV | HORIZONTAL IN-STALLATION KIT | TRAP GROMMET (DIRECT VENT APPLICATION ONLY) | X | X | X | X | X | X | X | X |
| NAHA00101HH | FREEZE PROTECT KIT | CONDENSATE DRAIN LINE – TAPE | X | X | X | X | X | X | X | X |
| NAHA00201HH | CONDENSATE FREEZE PROTECT KIT | CONDENSATE TRAP WITH HEAT PAD | X | X | X | X | X | X | X | X |
| NAHA01101SB | FLOOR BASE KIT | COMBUSTIBLE FLOOR | X | X | X | X | X | X | X | X |
| NAHB01001LP* | GAS CONVERSION KIT | NATURAL TO PROPANE | X | X | X | X | X | X | X | X |
| NAHB01001NG* | | PROPANE TO NATURAL | X | X | X | X | X | X | X | X |
| 1188594‡ | GAS VALVE TOWER PORT ADAPTER KIT | ADAPTER FOR GAS VALVE | X | X | X | X | X | X | X | X |
| NAHA00506FB† | WASHABLE FILTER PACK | 1" X 16" X 25" WASHABLE FILTER (6 PACK) | X | X | X | X | X | | | |
| NAHA00706FB | | 1" X 24" X 25" WASHABLE FILTER (6 PACK) | | | | | | X | X | X |
| NAHB00501FF | EXTERNAL BOTTOM FILTER RACK | 14" X 25" WASHABLE FILTER INCLUDED | X | | X | | | | | |
| NAHB00601FF | | 17–1/2" X 25" WASHABLE FILTER INCLUDED | | X | | X | X | | | |
| NAHB00701FF | | 21" X 25" WASHABLE FILTER INCLUDED | | | | | | X | X | |
| NAHB00801FF | | 24–1/2" X 25" WASHABLE FILTER INCLUDED | | | | | | | | X |
| NAHB00101CA | COIL ADAPTER KIT | WITH NO OFFSET | X | X | X | X | X | X | X | X |
| NAHB00201CA | | WITH SINGLE OFFSET | X | X | X | X | X | X | X | X |
| NAHB00301CA | | WITH DOUBLE OFFSET | X | X | X | X | X | X | X | X |
| NAHA01401RA | RETURN AIR KIT | 14–3/16" WIDE | X | | X | | | | | |
| NAHA01701RA | | 17–1/2" WIDE | | X | | X | X | | | |
| NAHA02101RA | | 21" WIDE | | | | | | X | X | |
| NAHA02401RA | | 24–1/2" WIDE | | | | | | | | X |
| NAHA00801WK | TWINNING KIT | TWO FURNACES OF SAME MODEL & SERIES | | | | X | X | | X | X |
| TSTAT0201CW | OBSERVER CONTROL SYSTEM | SELF–CONFIGURATING COMMUNICATING CONTROL | X | X | X | X | X | X | X | X |
| NAHA001NK | CONDENSATE NEUTRALIZER KIT | NEUTRALIZES CONDENSATE | X | X | X | X | X | X | X | X |
| NAHA00101PC | LOWER AMP KIT | ALLOWS 15 AMP BREAKER | | | | | | X | X | X |

X Accessory available
† Suitable for 17 inch external bottom filter rack.
* Factory authorized and field installed. Gas conversion kits are CSA recognized.
‡ Order through FAST Parts.

| Part Number | Gas Type | Orifice Size |
|---|---|---|
| 1185612 | Natural | 42 |
| 1176928 | Natural | 43 |
| 1185574 | Natural | 44 |
| 1177213 | Natural | 45 |

| Part Number | Gas Type | Orifice Size |
|---|---|---|
| 1183809 | Natural | 46 |
| 1185613 | Natural | 47 |
| 1185614 | Natural | 48 |

| Part Number | Gas Type | Orifice Size |
|---|---|---|
| 1184256 | Propane | 54 |
| 1185615 | Propane | 55 |
| 1185616 | Propane | 56 |
| 1185617 | Propane | 1.25 mm |
| 1185618 | Propane | 1.30 mm |

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