

## TECHNICAL SPECIFICATIONS

# MG3P

### High Efficiency / Direct Vent or Non Direct Vent

### Condensing Upflow Gas Furnaces Induced Draft - 92.1% AFUE Input 54,000 - 108,000 Btuh

The high efficiency upflow gas furnace is especially designed for Manufactured Housing. It may be installed in a utility room, or enclosed in a closet. The extended flush jacket provides a pleasing "appliance appearance." Design certified by CSA for application in Canada and the United States.



For California installations in 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](http://www.CleanAirFurnaceRebate.com).

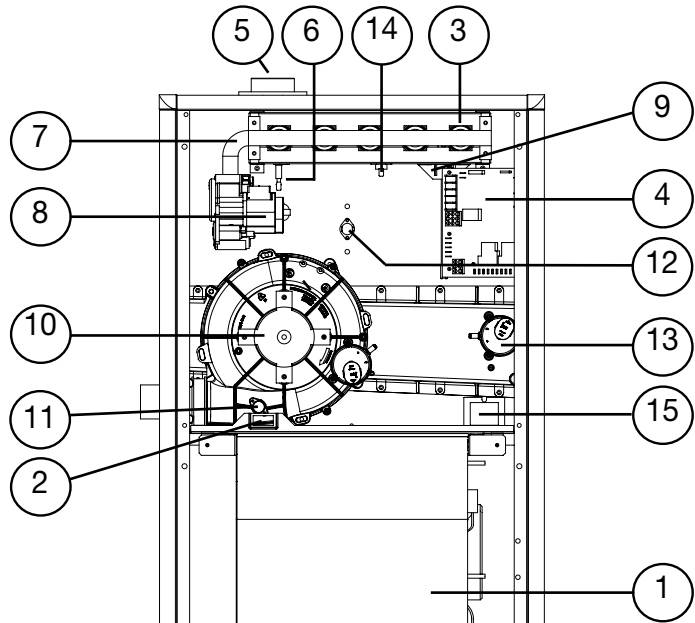
## FEATURES and BENEFITS

- **100% fired and tested:** All units and each component are tested on the manufacturing line.
- **Best packaging in the industry:** Unique corner post design assures product will arrive to the homeowner dent free.
- **30 second blower delay:** At start-up assures a warm duct temperature at furnace start-up. Adjustable blower off settings (60, 90, 120 and 180 seconds).
- **30 second post purge:** Increases life of heat exchanger.
- **Hot surface igniter:** Innovative application of an appliance type igniter with a 20 year history of reliability. Utilizes proven Smartlite® technology.
- **Color coded wire harness:** Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **Flexible category IV venting system:** May be vertically or horizontally vented using either a one-pipe or two-pipe system for maximum flexibility in installation.
- **High Static Blowers:** All models equipped with high static blowers.
- **Low Boy Height:** Easy to apply in low ceiling applications, works well with taller high SEER coils, easier to handle and install.
- **Tubular primary heat exchanger:** Heavy gauge aluminized steel heat exchanger and stainless steel secondary heat exchanger assures a long life.
- **90 second fixed cooling cycle blower-off delay (TDR):** Increases cooling performance when matched with a Nortek Global HVAC coil.
- **High efficiency blower kits:** Maximize efficiencies. On select units, a SEER improvement of up to 1 point is realized.
- **Multi-speed direct drive blower:** Designed to give a wide range of cooling capacities. Switches on PCB, provide ultra easy motor speed selection.
- **LP convertible:** Simple burner orifice and regulator spring change for ease of convertibility.
- **Diagnostic lights for easy troubleshooting without counting flashes:** Dedicated light for flame signal strength and 2 lights in combination to indicate all other fault codes with easy to recognize states without counting flashes.
- **Incorporates integrated control board:** With connections for electronic air cleaner and humidifier.
- **Two piece door design:** Enhances furnace appearance and uses captured screws to prevent losing door screws.
- **Seated vestibule:** Reduces burner and inducer sound levels.



# GAS FURNACE COMPONENTS

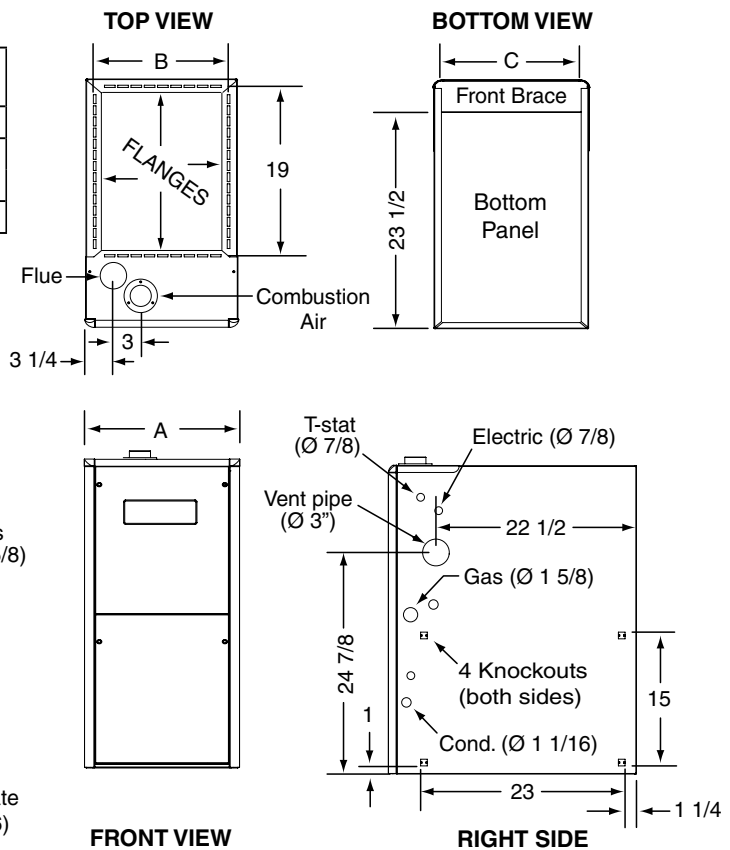
ITEM	COMPONENT NAME
1.	Blower Assembly
2.	Blower Door Switch
3.	Burner Assembly
4.	Control Board
5.	Finish Flange
6.	Flame Sensor
7.	Gas Manifold
8.	Gas Valve
9.	Igniter
10.	Inducer Assembly
11.	Limit Switch
12.	Main Air Limit Switch
13.	Pressure Switch(s) (‘B’, ‘C’, & ‘D’ cabinets only)
14.	Roll-Out Switch(s)
15.	Transformer



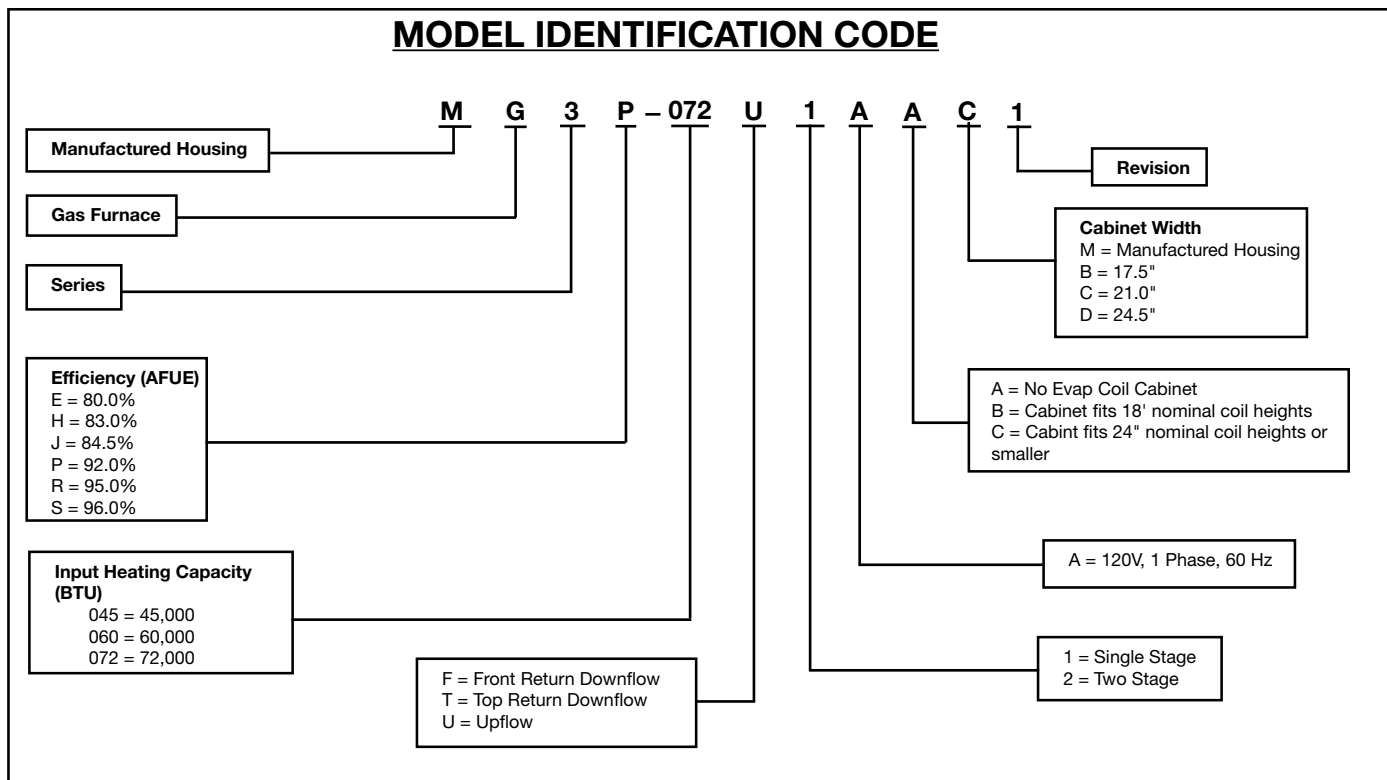
**Upflow/Horizontal Gas Furnace**

## DIMENSIONS

Model #'s	Dimension "A"	Dimension "B"	Dimension "C"
-054U1AAB1	17 ½	15 ⅞	16 ⅞
-072U1AAC1	21	19 ¾	19 ⅞
-090U1AAC1			
-108U1AAD1	24 ½	22 ⅞	23 ⅞



## MODEL IDENTIFICATION CODE



## SPECIFICATIONS

MG3P MODEL NUMBERS:	-054U1AAB1	-072U1AAC1	-090U1AAC1	-108U1AAD1
Input - Btuh (a)	54,000	72,000	90,000	108,000
Heating Capacity - Btuh	50,000	66,000	83,000	99,000
<b>AFUE</b>	92.0	92.0	92.0	92.0
Blower D x W	11 x 8	10 x 10	11 x 10	11 x 10
Motor H.P. - Speed - Type	3/4 - 5 - ECM	3/4 - 5 - ECM	1 - 5 - ECM	1 - 5 - ECM
Motor FLA	8.8	8.8	11.5	11.5
Rated Ext. SP - In. W.C.	0.5	0.5	0.5	0.5
Temperature Rise Range - °F	30-60	35-65	35-65	40-70
Shipping Weights	120lbs	130lbs	135lbs	155lbs

Note: All models are 115V, 60 Hz. Gas Connections are 1/2" N.P.T. AFUE = Annual Fuel Utilization Efficiency  
 (a) Ratings to 2,000 ft. Over 2,000 ft. reduce 4% for each 1,000 ft. above sea level.

HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)												
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)									
			0.1		0.2		0.3		0.4		0.5	
			CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
MG3P-054U1AAB1 54,000 BTU/Hr	Bottom	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,230	37	1,180	39	1,135	41	1,100	42	1,045	44
		2 - Med-Low	1,035	44	990	46	940	49	880	52	825	56
		1 - Low***	975	47	930	49	880	52	815	56		
	Side	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,225	38	1,180	39	1,140	40	1,090	42	1,050	44
		2 - Med-Low	1,035	44	990	46	940	49	870	53	820	56
		1 - Low***	975	47	925	50	860	53	810	57		
	Side + Bottom or 2 sides	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,230	37	1,175	39	1,140	40	1,100	42	1,055	44
		2 - Med-Low	1,035	44	990	46	935	49	880	52	825	56
		1 - Low***	980	47	925	50	875	53	820	56		

COOLING AIRFLOW (CFM)										
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
MG3P-054U1AAB1 54,000 BTU/Hr	Bottom	5 - High*	1,855	1,820	1,780	1,745	1,700	1,660	1,615	1,580
		4 - Alternate	1,615	1,580	1,540	1,500	1,455	1,415	1,370	1,330
		3 - Med-High**	1,230	1,180	1,135	1,100	1,045	1,000	955	900
		2 - Med-Low	1,035	990	940	880	825	770	710	670
		1 - Low***	975	930	880	815	760	700	655	600
	Side	5 - High*	1,870	1,835	1,790	1,765	1,725	1,685	1,635	1,595
		4 - Alternate	1,620	1,590	1,540	1,510	1,465	1,425	1,375	1,335
		3 - Med-High**	1,225	1,180	1,140	1,090	1,050	995	945	900
		2 - Med-Low	1,035	990	940	870	820	765	710	665
		1 - Low***	975	925	860	810	755	700	645	600
	Side + Bottom or 2 sides	5 - High*	1,860	1,820	1,780	1,750	1,710	1,675	1,630	1,590
		4 - Alternate	1,625	1,585	1,545	1,500	1,465	1,425	1,380	1,335
		3 - Med-High**	1,230	1,175	1,140	1,100	1,055	1,005	955	905
		2 - Med-Low	1,035	990	935	880	825	765	715	660
		1 - Low***	980	925	875	820	760	700	655	600

**\*NOTES:**

1. To comply with government mandated efficiency standards, two openings are required for airflows above 1,600 CFM.
2. Data is shown without filter.
3. Temperature rises in the table are approximate. Actual temperature rises may vary.
4. Individual cells shaded in gray indicate a temperature rise outside of the recommended range.
5. To comply with government mandated efficiency standards, speed settings shaded in gray are not allowed in HEAT mode.
6. Unit ships with (4) speeds pre-wired. Use of the fifth speed will require changing the appropriate wires at the motor connection. Consult the wiring diagram for more information.

\* Factory Set Cool

\*\* Factory Set Heat

\*\*\* Factory Set Circulation

HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)												
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)									
			0.1		0.2		0.3		0.4		0.5	
			CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
MG3P-072U1AAC1 72,000 BTU/Hr	Bottom	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,685	36	1,630	38	1,580	39	1,525	40	1,470	42
		2 - Med-Low	1,305	47	1,245	49	1,180	52	1,120	55	1,055	58
		1 - Low***	1,200	51	1,115	55						
	Side	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,675	37	1,620	38	1,565	39	1,515	40	1,460	42
		2 - Med-Low	1,300	47	1,235	50	1,175	52	1,115	55	1,050	58
		1 - Low***	1,185	52	1,105	56						
	Side + Bottom or 2 sides	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,700	36	1,645	37	1,590	39	1,535	40	1,480	41
		2 - Med-Low	1,315	47	1,250	49	1,185	52	1,120	55	1,060	58
		1 - Low***	1,210	51	1,125	55						

COOLING AIRFLOW (CFM)										
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
MG3P-072U1AAC1 72,000 BTU/Hr	Bottom	5 - High*	2,055	2,005	1,955	1,905	1,860	1,815	1,765	1,715
		4 - Alternate	1,815	1,765	1,715	1,665	1,610	1,565	1,510	1,450
		3 - Med-High**	1,685	1,630	1,580	1,525	1,470	1,415	1,360	1,310
		2 - Med-Low	1,305	1,245	1,180	1,120	1,055	995	935	870
		1 - Low***	1,200	1,115	1,050	990	920	855	795	735
	Side	5 - High*	2,035	1,985	1,935	1,890	1,845	1,800	1,755	1,700
		4 - Alternate	1,805	1,750	1,705	1,660	1,605	1,555	1,505	1,445
		3 - Med-High**	1,675	1,620	1,565	1,515	1,460	1,405	1,355	1,300
		2 - Med-Low	1,300	1,235	1,175	1,115	1,050	990	930	870
		1 - Low***	1,185	1,105	1,040	980	915	855	795	735
	Side + Bottom or 2 sides	5 - High*	2,075	2,025	1,975	1,925	1,880	1,825	1,775	1,730
		4 - Alternate	1,830	1,780	1,725	1,670	1,620	1,570	1,515	1,460
		3 - Med-High**	1,700	1,645	1,590	1,535	1,480	1,425	1,370	1,315
		2 - Med-Low	1,315	1,250	1,185	1,120	1,060	995	935	870
		1 - Low***	1,210	1,125	1,055	1,000	925	860	795	740

**\*NOTES:**

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2. Data is shown without filter.
3. Temperature rises in the table are approximate. Actual temperature rises may vary.
4. Individual cells shaded in gray indicate a temperature rise outside of the recommended range.
5. To comply with government mandated efficiency standards, speed settings shaded in gray are not allowed in HEAT mode.
6. Unit ships with (4) speeds pre-wired. Use of the fifth speed will require changing the appropriate wires at the motor connection. Consult the wiring diagram for more information.

\* Factory Set Cool

\*\* Factory Set Heat

\*\*\* Factory Set Circulation

HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)												
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)									
			0.1		0.2		0.3		0.4		0.5	
			CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
MG3P-090U1AAC1 90,000 BTU/Hr	Bottom	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,710	45	1,670	46	1,615	47	1,570	49	1,525	50
		2 - Med-Low	1,440	53	1,385	55	1,340	57	1,290	59	1,255	61
		1 - Low***										
	Side	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,695	45	1,645	47	1,590	48	1,540	50	1,495	51
		2 - Med-Low	1,455	53	1,395	55	1,335	57	1,285	60	1,230	62
		1 - Low***										
	Side + Bottom or 2 sides	5 - High*										
		4 - Alternate										
		3 - Med-High**	1,730	44	1,685	45	1,630	47	1,585	48	1,535	50
		2 - Med-Low	1,485	52	1,410	54	1,360	56	1,315	58	1,250	61
		1 - Low***										

COOLING AIRFLOW (CFM)										
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
MG3P-090U1AAC1 90,000 BTU/Hr	Bottom	5 - High*	2,305	2,260	2,215	2,170	2,130	2,100	2,100	2,045
		4 - Alternate	1,985	1,940	1,895	1,845	1,805	1,760	1,705	1,655
		3 - Med-High**	1,710	1,670	1,615	1,570	1,525	1,480	1,420	1,365
		2 - Med-Low	1,440	1,385	1,340	1,290	1,255	1,190	1,130	1,075
		1 - Low***	990	880	820	710	660	600	565	465
	Side	5 - High*	2,280	2,230	2,185	2,140	2,105	2,055	2,000	1,950
		4 - Alternate	1,965	1,925	1,875	1,830	1,785	1,740	1,695	1,645
		3 - Med-High**	1,695	1,645	1,590	1,540	1,495	1,450	1,415	1,355
		2 - Med-Low	1,455	1,395	1,335	1,285	1,230	1,210	1,130	1,080
		1 - Low***	960	885	740	685	605	555	485	455
	Side + Bottom or 2 sides	5 - High*	2,345	2,290	2,250	2,200	2,155	2,110	2,060	2,015
		4 - Alternate	2,015	1,965	1,915	1,875	1,825	1,775	1,735	1,685
		3 - Med-High**	1,730	1,685	1,630	1,585	1,535	1,490	1,440	1,385
		2 - Med-Low	1,485	1,410	1,360	1,315	1,250	1,205	1,160	1,095
		1 - Low***	970	900	820	720	630	590	570	445

**\*NOTES:**

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5. To comply with government mandated efficiency standards, speed settings shaded in gray are not allowed in HEAT mode.
6. Unit ships with (4) speeds pre-wired. Use of the fifth speed will require changing the appropriate wires at the motor connection. Consult the wiring diagram for more information.

\* Factory Set Cool

\*\* Factory Set Heat

\*\*\* Factory Set Circulation

HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)												
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)									
			0.1		0.2		0.3		0.4		0.5	
			CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
MG3P-108U1AAD1 108,000 BTU/Hr	Bottom	5 - High*										
		4 - Med-High**	2,040	45	1,985	46	1,940	47	1,890	49	1,835	50
		3 - Med-Low	1,845	50	1,795	51	1,735	53	1,685	55	1,635	56
		2 - Alternate	1,665	55	1,600	58	1,545	60	1,480	62	1,430	64
		1 - Low***										
	Side	5 - High*										
		4 - Med-High**	2,035	45	1,980	46	1,935	48	1,885	49	1,830	50
		3 - Med-Low	1,830	50	1,775	52	1,730	53	1,665	55	1,615	57
		2 - Alternate	1,665	55	1,610	57	1,555	59	1,500	61	1,445	64
		1 - Low***										
	Side + Bottom or 2 sides	5 - High*										
		4 - Med-High**	2,050	45	1,995	46	1,950	47	1,890	49	1,840	50
		3 - Med-Low	1,855	50	1,800	51	1,750	53	1,695	54	1,645	56
		2 - Alternate	1,675	55	1,620	57	1,560	59	1,505	61	1,450	63
		1 - Low***										

COOLING AIRFLOW (CFM)										
MODEL NAME/ HEATING INPUT	RETURN AIR VIA:	MOTOR SPEED	External Static Pressure (in. w.c.)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
MG3P-108U1AAD1 108,000 BTU/Hr	Bottom	5 - High*	2,265	2,210	2,170	2,120	2,070	2,030	1,975	1,925
		4 - Med-High**	2,040	1,985	1,940	1,890	1,835	1,785	1,735	1,690
		3 - Med-Low	1,845	1,795	1,735	1,685	1,635	1,580	1,535	1,480
		2 - Alternate	1,665	1,600	1,545	1,480	1,430	1,385	1,330	1,260
		1 - Low***	1,095	1,015	935	850	775	695	635	585
	Side	5 - High*	2,250	2,195	2,145	2,100	2,050	2,005	1,940	1,885
		4 - Med-High**	2,035	1,980	1,935	1,885	1,830	1,780	1,730	1,680
		3 - Med-Low	1,830	1,775	1,730	1,665	1,615	1,560	1,510	1,460
		2 - Alternate	1,665	1,610	1,555	1,500	1,445	1,385	1,330	1,280
		1 - Low***	1,095	1,000	920	835	745	665	605	550
	Side + Bottom or 2 sides	5 - High*	2,275	2,230	2,180	2,125	2,080	2,030	1,985	1,935
		4 - Med-High**	2,050	1,995	1,950	1,890	1,840	1,790	1,745	1,700
		3 - Med-Low	1,855	1,800	1,750	1,695	1,645	1,595	1,540	1,490
		2 - Alternate	1,675	1,620	1,560	1,505	1,450	1,395	1,345	1,285
		1 - Low***	1,125	1,025	925	845	765	660	595	545

**\*NOTES:**

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\* Factory Set Cool

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## VENTING

All models are approved for vertical non direct (1 pipe) and direct (2 pipe) venting applications. See Vent Table below for specified sizes and allowable lengths.

## VENT TABLE

MODELS	SINGLE PIPE LENGTH (FT.) with 1 long radius elbow*	DIRECT VENT, DUEL PIPE LENGTH (ft.) WITH 1 long radius elbow on each pipe*
	OUTLET	INLET/OUTLET
	3"	3"
054	90	90
072	90	90
090	90	90
108	90	90

\* NOTE:

1. Subtract 2.5 ft. for each additional 2" elbow and 3.5 ft. for each additional 3" elbow.
2. Two 45 degree elbows are equivalent to one 90 degree elbow.
3. One short radius elbow is equivalent to two long radius elbows.
4. Do not include termination elbows in calculation of vent length.
5. This table is applicable for elevations from sea level to 2000 ft. For higher elevations decrease vent pipe lengths by 8% per 1000 ft. of altitude.
6. Only the listed pipe materials are approved for use with M4R Condensing Furnaces.

## ACCESSORIES

MG3P KITS	
Description	SKU
"B" Cabinet variable speed, high efficiency, VSHE	904877
"C" Cabinet variable speed, high efficiency, VSHE	904878
"D" Cabinet variable speed, high efficiency, VSHE	904879
2" Concentric vent kit	904952
3" Concentric vent kit	904953
"B", "C", "D" Cabinet downflow sub base kit	904911
2" Side wall vent kit	904617
3" Side wall vent kit	904347
U.S. LP Conversion kit (0 to 10,000 ft.)	904914
Canada LP Conversion kit (0 to 4,500 ft.)	904915
Bottom return filter 20 per box, "B" cabinet	904916
Bottom return filter 20 per box, "C" cabinet	904917
Bottom return filter 20 per box, "D" cabinet	904918
Side return filter kit	541036
Neutralizer kit	902377
Sloped roof ventilaire III kit	914098
Sloped roof ventilaire IV kit	914958
Sloped roof ventilaire V kit	1022904
Soffit ventilaire kit	917201
Concentric vent termination kit	903578
3" PVC horizontal exterior vent mounting kit	902375
A/C coil box (B cabinet)	920259
A/C coil box (C cabinet)	920261
A/C coil box (D cabinet)	920262





### GENERAL TERMS OF LIMITED WARRANTY

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the Nortek Global HVAC, LLC warranty department for a copy.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A (06/2020)