

TECHNICAL SPECIFICATIONS



High Efficiency Upflow/Horizontal and Downflow Gas Furnaces 80+ AFUE Input 45,000-126,000 Btuh

This furnace series is approved and certified by the SCAQM and the SJVAPC Districts in the state of California under each Districts' Mitigation Fee Plan for shipment into and sales in both districts.

For California installations in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 NOx emission

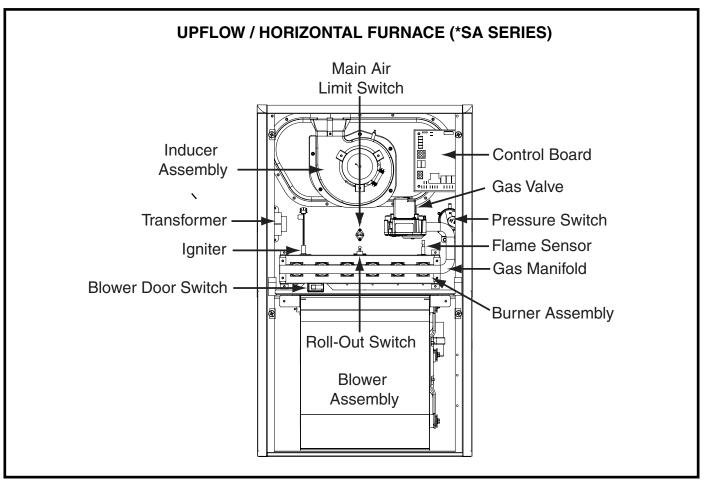
limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

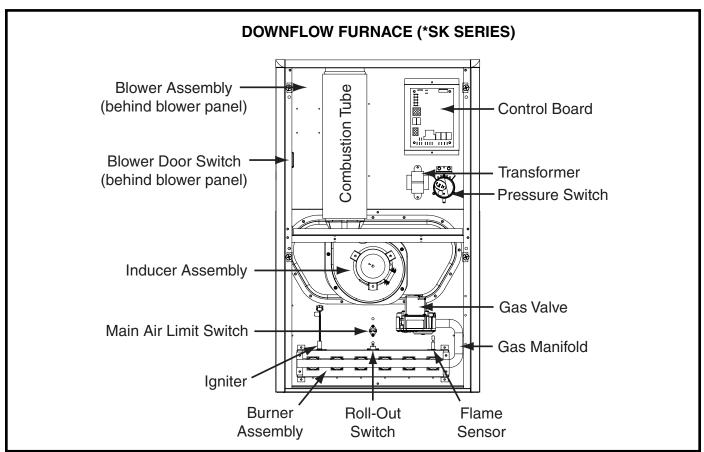
The high efficiency gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. The rounded corner jacket provides a pleasing "appliance appearance." Design certified by CSA for Canada and the United States.

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.
- 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 assures a long life.
- **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 SmartStart® technology.
- **Color coded wire harness:** Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **High static blowers:** All models equipped with high static blowers.
- 60 second cooling cycle blower-off delay (TDR): increases cooling performance when matched with a Nortek Global HVAC coil.
- Flexible category I venting system: May be vented with dedicated venting system or common vented with other category one appliances.
- **High efficiency blower kits:** Maximize efficiencies. On select units, a SEER improvement of up to 1 point is realized.
- Energy-efficient, brushless DC (ECM), 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.
- **Integrated control board:** Incorporates connections for electronic air cleaner and humidifier. Ergonomically located for ease of service.
- **Two piece door design:** Enhances furnace appearance and uses captured screws to prevent loosing door screws.
- Blower Compartment: Insulated for ultra quiet operation.
- Furnace Air Leakage: These furnaces comply with Energy Star cabinet air leakage requirement of less than or equal to 2%.
 Keep the conditioned air flowing to where it's needed.

GAS FURNACE COMPONENTS

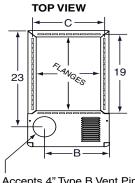


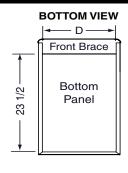


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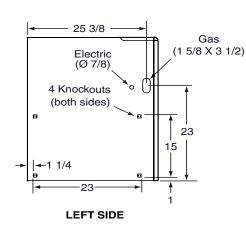
DIMENSIONS

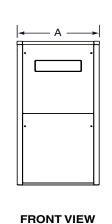
*SA Model #'s	Dimension "A"	Dimension "B"	Dimension "C"	Dimension "D"
045-23A	14 1/4	10 3/4	12 5/8	12 7/8
054-23A	14 1/4	10 3/4	12 3/0	12 //0
072-24B	17 1/2	11 2/4	1 5 7/0	1.6 1/0
090-24B	17 1/2	11 3/4	15 7/8	16 1/8
072-35C				
090-35C	21	14	19 3/8	19 7/8
108-35C				
126-45D	24 1/2	15 1/4	22 7/8	23 1/8

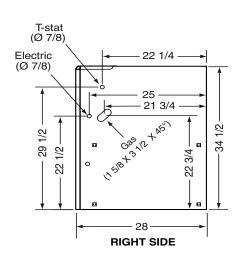




Accepts 4" Type B Vent Pipe

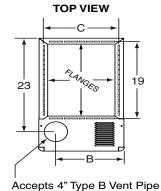


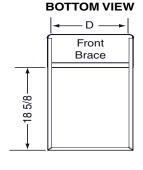


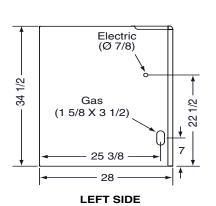


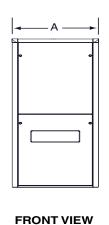
MGC2SA 80+ High Efficiency Upflow/Horizontal Series

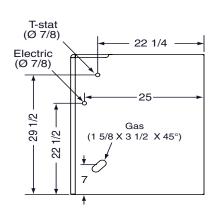
*SK Model #'s	Dimension "A"	Dimension "B"	Dimension "C"	Dimension "D"		
054-23A	14 1/4	10 3/4	12 5/8	12 7/8		
072-24B	17 1/2	11 3/4	15 7/8	16 1/8		
090-24B] 1/ 1/2	11 3/4	15 //6	16 1/6		
108-35C	21	14	19 3/8	19 5/8		
126-45D	24 1/2	15 1/4	22 7/8	23 1/8		











RIGHT SIDE

MGC2SK 80+ High Efficiency Downflow Series

BLOWER PERFORMANCE MGC2SA

MGC2SA-045C-T24A1 (WITH 5-SPEED ECM MOTOR)

	HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)											
					E	xternal	Static P	ressure	(in. w.c	:.)		
Model Name/ Heating Input	Return air via:	Motor Speed	0.1		0.2		0.3		0.4		0	.5
ricating input	an viai	Ореси	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
		5 - High										
		4 - Med-High										
	Bottom	3 - Medium	985	34	945	35	905	37	865	39	815	41
		2 - Med-Low	845	39	800	42	760	44	720	46	670	50
		1 - Low	790	42	735	45	695	48	645	52	605	55
		5 - High										
MGC2SA-045C-		4 - Med-High										
T24A1	Side	3 - Medium	980	34	945	35	895	37	865	39	830	40
45,000 BTU/Hr		2 - Med-Low	845	39	800	42	765	44	720	46	670	50
		1 - Low	790	42	740	45	705	47	650	51	610	55
		5 - High										
	Cida Dattana	4 - Med-High										
	Side + Bottom or 2 sides	3 - Medium	975	34	940	35	905	37	865	39	825	40
	01 2 31063	2 - Med-Low	850	39	815	41	770	43	730	46	680	49
		1 - Low	790	42	755	44	705	47	680	49	625	53

COOLING Airflow (CFM)											
					Externa	al Static P	ressure (i	n. w.c.)			
Model Name/ Heating Input	Return air via:	Motor	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	
neating input	air via:	Speed	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	
		5 - High	1,340	1,310	1,270	1,240	1,205	1,175	1,140	1,100	
		4 - Med-High	1,150	1,115	1,075	1,040	1,010	950	925	890	
	Bottom	3 - Medium	985	945	905	865	815	780	735	685	
		2 - Med-Low	845	800	760	720	670	625	580		
		1 - Low	790	735	695	645	605	555			
		5 - High	1,340	1,310	1,270	1,240	1,205	1,175	1,140	1,100	
MGC2SA-045C-		4 - Med-High	1,150	1,115	1,075	1,040	1,010	950	925	890	
T24A1	Side	3 - Medium	980	945	895	865	830	785	740	700	
45,000 BTU/Hr		2 - Med-Low	845	800	765	720	670	635	585		
		1 - Low	790	740	705	650	610	570			
		5 - High	1,340	1,310	1,270	1,240	1,205	1,175	1,140	1,100	
	Side + Bottom	4 - Med-High	1,150	1,115	1,075	1,040	1,010	950	925	890	
	or	3 - Medium	975	940	905	865	825	780	740	685	
	2 sides	2 - Med-Low	850	815	770	730	680	645	600		
		1 - Low	790	755	705	680	625	575			

*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.

BLOWER PERFORMANCE MGC2SA Continued

MGC2SA-054C-T24A1 (WITH 5-SPEED ECM MOTOR)

HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)												
	_				Е	xternal	Static P	ressure	(in. w.c	:.)		
Model Name/ Heating Input	Return air via:	Motor Speed	0.1		0.2		0.3		0.4		0	.5
ricating input	ali via.	Ореси	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
		5 - High										
		4 - Med-High										
	Bottom	3 - Medium	985	39	945	41	905	43	865	45	815	47
		2 - Med-Low	845	46	800	48	760	51	720	53	670	57
		1 - Low	790	49	735	52	695	55				
		5 - High										
MGC2SA-054C-		4 - Med-High										
T24A1	Side	3 - Medium	980	39	945	41	895	43	865	45	830	46
52,000 BTU/Hr		2 - Med-Low	845	46	800	48	765	50	720	53	670	57
		1 - Low	790	49	740	52	705	55				
		5 - High										
	Side + Bottom	4 - Med-High										
	or	3 - Medium	975	40	940	41	905	43	865	45	825	47
	2 sides	2 - Med-Low	850	45	815	47	770	50	730	53	680	57
		1 - Low	790	49	755	51	705	55				

	COOLING AIRFLOW (CFM)											
					Externa	al Static P	ressure (i	n. w.c.)				
Model Name/ Heating Input	Return air via:	Motor Speed	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8		
ricating input	un viu.	Speed	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM		
		5 - High	1,340	1,310	1,270	1,240	1,205	1,175	1,140	1,100		
		4 - Med-High	1,150	1,115	1,075	1,040	1,010	950	925	890		
	Bottom	3 - Medium	985	945	905	865	815	780	735	685		
		2 - Med-Low	845	800	760	720	670	625	580			
		1 - Low	790	735	695	645	605	555				
		5 - High	1,340	1,310	1,270	1,240	1,205	1,175	1,140	1,100		
MGC2SA-054C-		4 - Med-High	1,150	1,115	1,075	1,040	1,010	950	925	890		
T24A1	Side	3 - Medium	980	945	895	865	830	785	740	700		
52,000 BTU/Hr		2 - Med-Low	845	800	765	720	670	635	585			
		1 - Low	790	740	705	650	610	570				
		5 - High	1,340	1,310	1,270	1,240	1,205	1,175	1,140	1,100		
	Side + Bottom	4 - Med-High	1,150	1,115	1,075	1,040	1,010	950	925	890		
	or	3 - Medium	975	940	905	865	825	780	740	685		
	2 sides	2 - Med-Low	850	815	770	730	680	645	600			
		1 - Low	790	755	705	680	625	575				

- 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.

BLOWER PERFORMANCE MGC2SA Continued

MGC2SA-072C-T24B1 (WITH 5-SPEED ECM MOTOR)

HEATING AIRFLOW (CFM) & TEMPERATURE RISE (°F)												
					E	xternal	Static P	ressure	(in. w.c	:.)		
Model Name/ Heating Input	Return air via:	Motor Speed	0	.1	0	.2	0	.3	0	.4	0	.5
ricating input	ali via.	Speed	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
		5 - High										
	Bottom or	4 - Med-High	1,585	33	1,540	34	1,505	34	1,465	35	1,085	48
		3 - Medium	1,265	41	1,210	43	1,165	45	1,125	46	1,085	48
	Side	2 - Med-Low	1,070	48	1,030	50	990	52	955	54	915	57
MGC2SA-072C- T24B1		1 - Low										
70,000 BTU/Hr		5 - High										
70,000 510/11		4 - Med-High	1,585	33	1,540	34	1,505	34	1,465	35	1,085	48
	2 Openings	3 - Medium	1,260	41	1,200	43	1,160	45	1,125	46	1,085	48
		2 - Med-Low	1,110	47	1,070	48	1,030	50	980	53	935	55
		1 - Low										

	COOLING AIRFLOW (CFM)											
			External Static Pressure (in. w.c.)									
Model Name/ Heating Input	Return air via:	Motor Speed	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8		
rieating input	air via:	Speed	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM		
	Bottom or Side	5 - High	1,780	1,740	1,700	1,665	1,620	1,580	1,540	1,500		
		4 - Med-High	1,585	1,540	1,505	1,465	1,420	1,380	1,335	1,295		
		3 - Medium	1,265	1,210	1,165	1,125	1,085	1,045	995	955		
		2 - Med-Low	1,070	1,030	990	955	915	865	830	785		
MGC2SA-072C- T24B1		1 - Low	970	925	865	820	765	715	665	625		
70,000 BTU/Hr		5 - High	1,790	1,755	1,710	1,675	1,635	1,600	1,560	1,525		
70,000 2107111		4 - Med-High	1,390	1,345	1,305	1,255	1,220	1,180	1,135	1,090		
	2 Openings	3 - Medium	1,260	1,200	1,160	1,125	1,085	1,040	1,000	950		
	-	2 - Med-Low	1,110	1,070	1,030	980	935	880	835	790		
		1 - Low	970	925	875	830	770	725	680	630		

*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.

BLOWER PERFORMANCE MGC2SA Continued

MGC2SA-090C-T24B1 (WITH 5-SPEED ECM MOTOR)

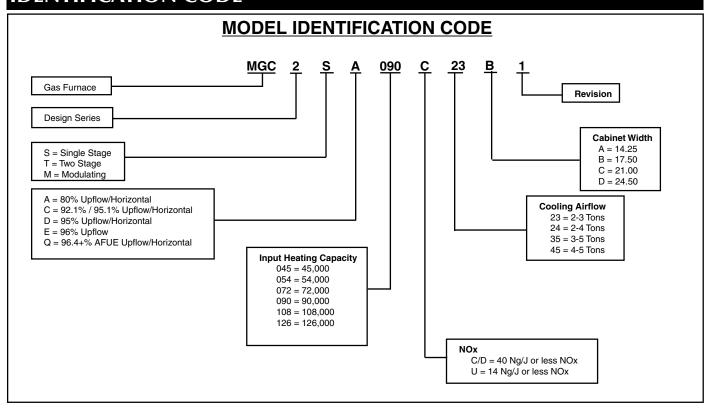
		HEATING AIRFLO	OW (CFM) & TEN	IPERAT	URE RI	SE (°F)						
	_		External Static Pressure (in. w.c.)										
Model Name/ Heating Input	Return air via:	Motor Speed	0	.1	0	.2	0	.3	0	.4	0	.5	
neating input	ali via.	Speed	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	
	Bottom or	5 - High											
		4 - Med-High											
		3 - Medium	1,370	49	1,335	50	1,290	52	1,250	53	1,215	55	
	Side	2 - Med-Low	1,075	62	1,035	64	990	67	950	70	905	74	
MGC2SA-090C- T24B1		1 - Low											
90,000 BTU/Hr		5 - High											
00,000 510/11		4 - Med-High											
	2 Openings	3 - Medium	1,370	49	1,335	50	1,290	52	1,250	53	1,215	55	
	· • –	2 - Med-Low	1,075	62	1,035	64	990	67	950	70	905	74	
		1 - Low											

	COOLING AIRFLOW (CFM)											
	D.1		External Static Pressure (in. w.c.)									
Model Name/ Heating Input	Return	Motor	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8		
neating input	air via:	Speed	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM		
	Bottom or Side	5 - High	1,810	1,765	1,735	1,700	1,665	1,625	1,590	1,550		
		4 - Med-High	1,560	1,515	1,475	1,440	1,395	1,370	1,315	1,275		
		3 - Medium	1,370	1,335	1,290	1,250	1,215	1,175	1,130	1,085		
		2 - Med-Low	1,075	1,035	990	950	905	865	820	735		
MGC2SA-090C- T24B1		1 - Low	765	720	675	625	585	520	465	420		
90,000 BTU/Hr		5 - High	1,810	1,765	1,735	1,700	1,665	1,625	1,590	1,550		
00,000 10/11		4 - Med-High	1,560	1,515	1,475	1,440	1,395	1,370	1,315	1,275		
	2 Openings	3 - Medium	1,370	1,335	1,290	1,250	1,215	1,175	1,130	1,085		
		2 - Med-Low	1,075	1,035	990	950	905	865	820	735		
		1 - Low	765	720	675	625	585	520	465	420		

*NOTES:

- 1. To comply with government mandated efficiency standards, two openings are required for airflows above 1,600 CFM.
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- 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.

IDENTIFICATION CODE



SPECIFICATIONS

MGC2SA MODEL NUMBERS	-045-T23A1	-054-T23A1	-072-T24B1	-072-T35C1	-090-T24B1
Input - Btuh (a)	45000	52000	70000	70000	90000
Heating Capacity - BtuH	36000	42000	56000	56000	72000
AFUE	80.0	80.0	80.0	80.0	80.0
Motor H.P Speed - Type	1/2 - 5 - ECM	1/2 - 5 - ECM	3/4 - 5 - ECM	1 - 5 - ECM	3/4 - 5 - ECM
Motor FLA	6.4	6.4	8.8	11.5	8.8
Rated Ext. SP - In. W.C.	0.5	0.5	0.5	0.5	0.5
Temperature Rise Range - F	30-60	30-60	35-65	35-65	35-65
Shipping Weights	95 lb	95 lb	110 lb	115 lb	115 lb
SKU	1025482L	1025483L	1025481L	1025485L	1025484L

MGC2SK MODEL NUMBERS	-072-T24B1	-090-T24B1
Input - Btuh (a)	72000	90000
Heating Capacity - BtuH	58000	72000
AFUE	80.0	80.0
Motor H.P Speed - Type	3/4 - 5 - ECM	3/4 - 5 - ECM
Motor FLA	8.8	8.8
Rated Ext. SP - In. W.C.	0.5	0.5
Temperature Rise Range - F	35-65	35-65
Shipping Weights	110 lb	115 lb
SKU	1025490L	1025491L

ACCESSORIES

MGC2S(A,K) KITS	
Description	SKU
"A" Cabinet variable speed, high efficiency, VSHE	904876
"B" Cabinet variable speed, high efficiency, VSHE	904877
"C" Cabinet variable speed, high efficiency, VSHE	904878
"D" Cabinet variable speed, high efficiency, VSHE	904879
"A" Cabinet downflow sub base kit	902974
"B", "C", "D" Cabinet downflow sub base kit	904911
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, "A" cabinet	903088
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
Furnace Twinning Kit	1010035

