

TECHNICAL SPECIFICATIONS

M7TL Series

High Efficiency / Direct Vent Downflow 2-Stage Gas Furnace with Variable Speed Blower

Induced Draft - 95%+ AFUE
Input 45,000 thru 72,000 Btuh

The high efficiency downflow gas furnace is especially designed for manufactured and modular housing. It may be installed in a utility room, or enclosed in a closet. ITS design certified for use in the United States and Canada.



BW Models

BWT Models

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.

FEATURES and BENEFITS

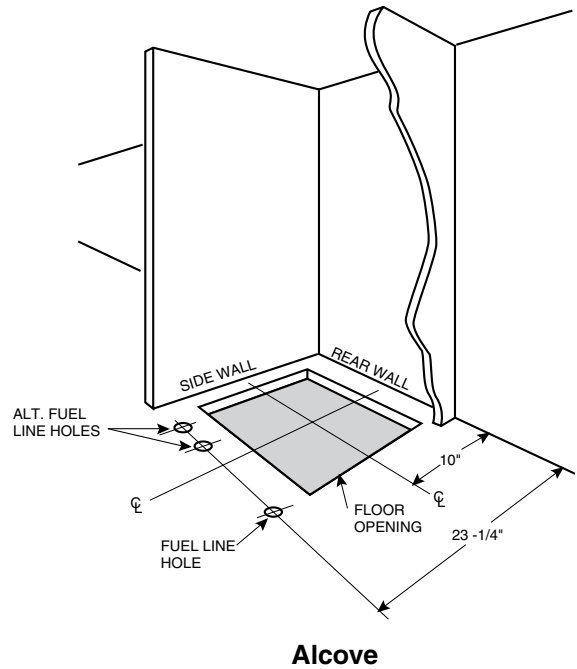
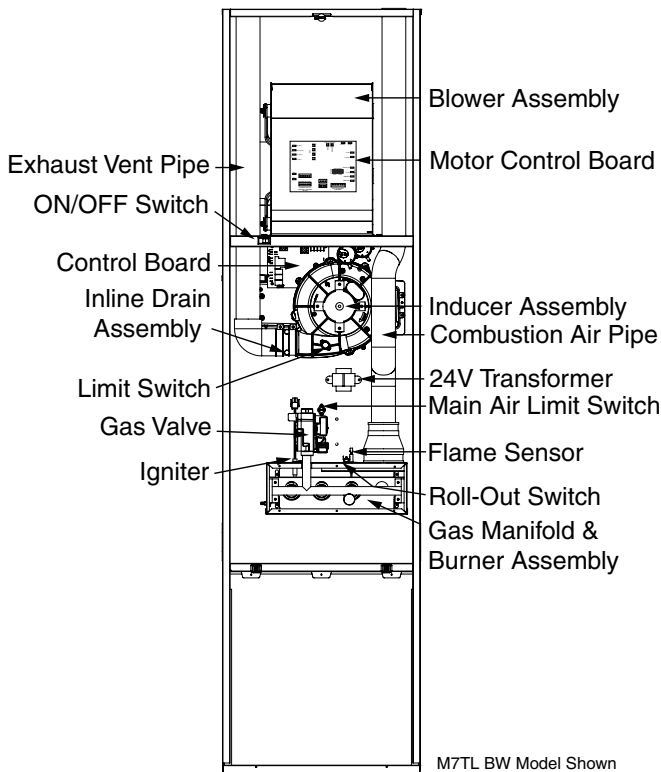
- **ECM blower:** Designed to give a wide range of cooling and heating airflows.
- **2 Stage gas valve:** Provides 2-stage thermostat control.
- **2 Stage inducer:** Optimizes efficiency on first stage heat and reduces sound levels.
- **100% fired and tested:** All units and each component (both mechanical and electrical) are tested on the manufacturing line.
- **Clean and quiet operation:** Due to the unique design of in-shot burners, location of inducer and use of insulation.
- **Fixed 30 second blower delay:** At burner start-up assures a warm outlet air temperature at furnace start-up. Adjustable blower off settings (60, 90, 120 and 180 seconds).
- **Fixed 30-second post purge:** Increases life of heat exchanger.
- **Dependable, hot surface ignitor:** Innovative application of silicon nitride type igniter. Utilizes proven Smartlite® technology.
- **Tubular primary heat exchanger:** Heavy gauge aluminized steel heat exchanger assures a long life.
- **Stainless steel secondary heat exchanger:** Assures a long life.
- **60 second fixed cooling cycle blower-off delay (TDR):** Increases cooling performance when matched with a Nortek Global HVAC coil.
- **Sealed combustion approved for direct vent furnace, category IV venting system:** May be vertically or horizontally vented using a two-pipe system for maximum flexibility in installation.
- **LP convertible:** Simple burner orifices and gas valve regulator change for ease of convertibility.
- **3 amp fuse protection against low voltage shorts:** Protects transformer and control board.
- **Low voltage terminal board:** For easy field wiring.
- **Easy open pawl latch:** Secures the door firmly for transit, yet allows easy removal for access.
- **Appliance quality door:** Protects against rust and other corrosion. Baked enamel finish allows for easy cleaning.
- **Fully insulated cabinet:** Insures minimized heat loss and quiet operation.
- **Color coded wire harness:** Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **40VA transformer included.**
- **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.

Note: The M7TL will fit in the same footprint and uses the same duct connector as the M1 & M3 furnaces. The design of the M7TL allows for direct substitution in place of the M1, M3, or M7 series furnaces.

FEATURES

High Efficiency Downflow 95% AFUE + Gas Furnace

Downflow Furnace



SPECIFICATIONS

M7TL MODEL NUMBERS:	045A	060A	072A
Input (BTUH)*	45,000/29,000	60,000/39,000	72,000/47,000
Heating Capacity (BTUH)	42,750/27,550	57,000/37,050	68,400/44,650
AFUE (%)	95.1	95.1	95.1
Blower D x W (in.)	11 x 8	11 x 8	11 x 8
Motor HP-Speed-Type	1/2 - 16 - VSB	1/2 - 16 - VSB	1/2 - 16 - VSB
Motor FLA (Amps)	6.1	6.1	6.1
Rated Ext. SP (in. WC)	0.3	0.3	0.3
Temperature Rise Range (°F)	30-60	30-60	35-65
Fuse or Breaker (Amps)	15	15	15

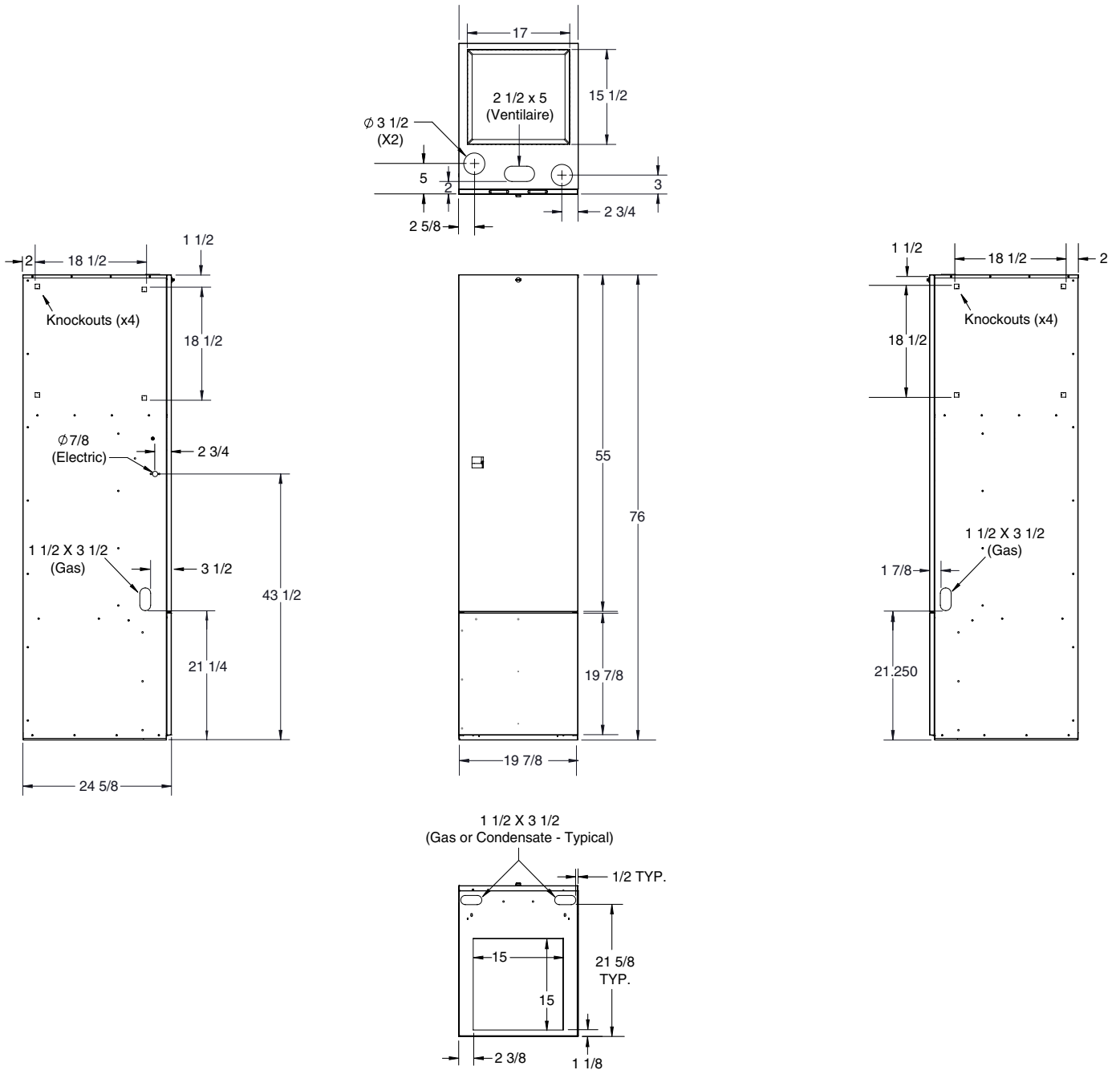
Note: All models are 115V, 60 Hz, 1 phase. Gas Connections are 1/2" NPT.
 AFUE = Annual Fuel Utilization Efficiency
 * Ratings to 2,000 ft. Over 2,000 ft. reduce 4% for each 1,000 ft. above sea level.

Shipping Weights

Furnace Model	Shipping Weight (lbs)
M7TL 045A BW*	174
M7TL 060A BW*	176
M7TL 072A BW*	180

*May include suffix - T

DIMENSIONS



ALL MODELS	CLOSET	ALCOVE
	Inches	Inches
Front	1*	1*
Back	0	0
Sides	0	0
Vent	0	0
Top	6	6
Duct (Plenum) w/ Coil Box	0	0
w/o Coil Box (within 3 feet)	1/4	1/4

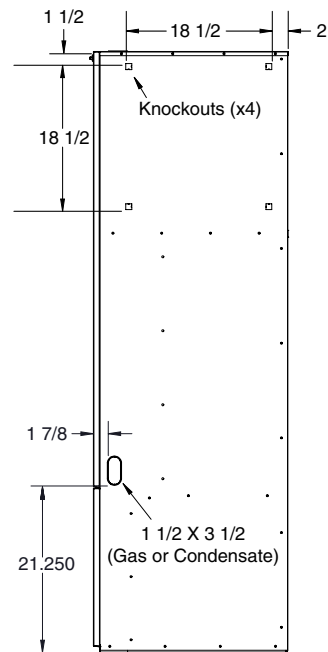
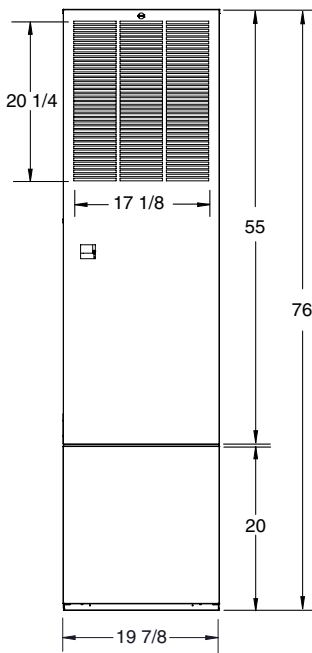
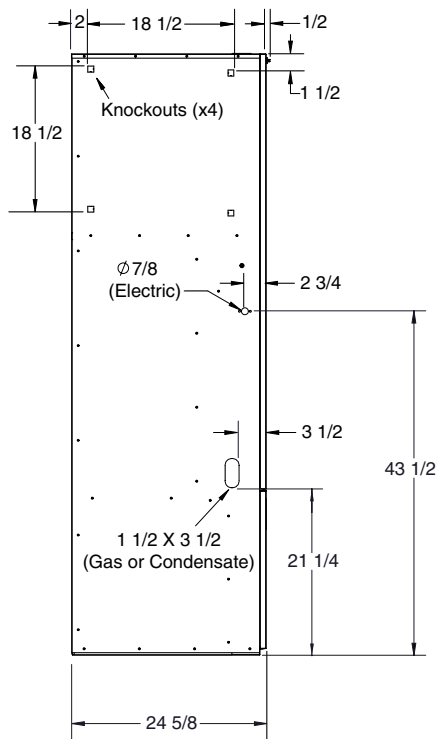
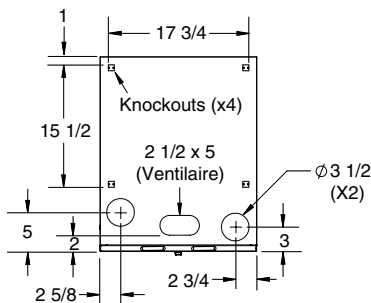
*Note: For 1" clearance, use a fully louvered door with at least 400 square inches of free airflow area.

Minimum Clearances

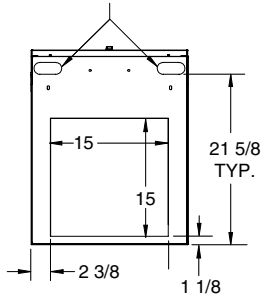
BWT Top Return Models

DIMENSIONS

BW Top



1 1/2 X 3 1/2
(Gas, Condensate, or Linesets - Typical)



ALL MODELS	CLOSET	ALCOVE
	Inches	Inches
Front	1*	1*
Back	0	0
Sides	0	0
Vent	0	0
Top	6	6
Duct (Plenum) w/ Coil Box	0	0
w/o Coil Box (within 3 feet)	1/4	1/4

*Note: For 1" clearance, use a fully louvered door with at least 400 square inches of free airflow area.

Minimum Clearances

BW Models

BLOWER PERFORMANCE

Nominal Heating Airflows (CFM) & Temperature Rises

CFM	Switch Settings (0 = OFF, 1 = ON)				045A (45,000 BTU input) Temp Rise (deg F)	060A (60,000 BTU input) Temp Rise (deg F)	072A (72,000 BTU input) Temp Rise (deg F)
	A/B	2	3	4			
1,000	1	0	0	0	40	53	63
1,100	1	0	0	1	36	48	58
1,200	1	0	1	0	33	44	53
1,300	1	0	1	1	30	41	49
1,400	1	1	0	0	28	38	45
1,500	1	1	0	1	26	35	42
1,600	1	1	1	0	25	33	40
1,700	1	1	1	1	23	31	37

ACCESSORIES

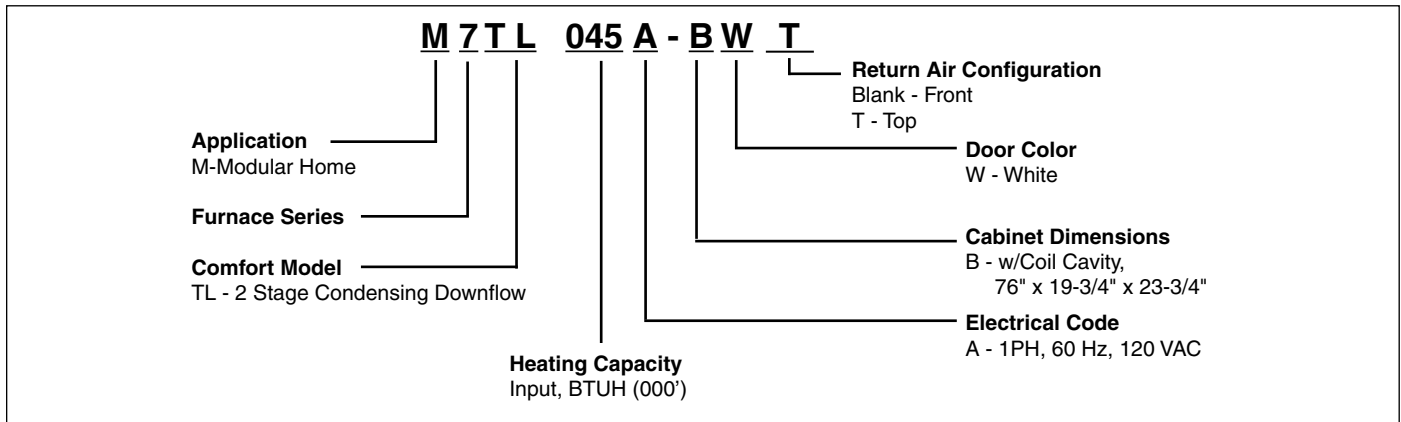
Description	Part Number
Automatic Cavity Damper	901083
"VEE" Box Adapters (12") - 5 / carton	902149
Side Return Air Kit	904003
Concentric Vent Termination Kit (for horizontal and vertical venting)	904953
Neutralizer Kit - All Models	902377
PVC Isolation Kit	904063
Vent Transition Kit	904106
Soffit Air Inlet (for VentilAire III only)	917201A
VentilAire III - Sloped 3/12	914098B
VentilAire IV - Sloped 3/12	914229B

AIRFLOWS

CFM		Switch Settings (0 = OFF, 1 = ON)				
		HEAT	COOL			
LOW	HIGH	A/B	5	6	7	8
485	700	1	0	0	0	0
525	760	1	0	0	0	1
565	820	1	0	0	1	0
605	880	1	0	0	1	1
650	940	1	0	1	0	0
690	1,000	1	0	1	0	1
730	1,060	1	0	1	1	0
775	1,120	1	0	1	1	1
815	1,180	1	1	0	0	0
855	1,240	1	1	0	0	1
895	1,300	1	1	0	1	0
940	1,360	1	1	0	1	1
980	1,420	1	1	1	0	0
1,020	1,480	1	1	1	0	1
1,065	1,540	1	1	1	1	0
1,105	1,600	1	1	1	1	1

Nominal Cooling / Heat Pump Airflows (CFM)
for Variable Speed Furnaces

IDENTIFICATION CODE



VENTING

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

Maximum Direct Vent, Dual Pipe Length (ft.)*		
M7TL Inputs (BTUH)	Inlet / Outlet 3 in. Diameter	Inlet / Outlet 2 in. Diameter
45,000	60	30
60,000	60	30
72,000	60	30

***NOTES:**

1. Subtract 3.5 ft. for each additional 3" 90 degree 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 2,000 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 M7 condensing furnaces.
7. For Canadian applications, use ULC S636 approved material.

Pipe Materials	ANSI/ASTM Standard
Schedule 40PVC	D1785
PVC-DWV	D2665
SDR-21 & SDR-26	D2241
ABS-DWV	D2661
Schedule 40 ABS	F628
Foam / Cellular Core PVC	F891



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 (09/2018)