Installer's Guide

WALL-MOUNT AIR HANDLERS 1.5-3TON COOLING

TMM4A0A18S21SA TMM4A0A24S21SA TMM4A0B30S21SA TMM4A0B36S31SA

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

Important: This Document is customer property and is to remain with this unit.

The TMM4A series wall mount air handler is designed for installation in a closet, utility room, alcove and can be wall mounted. These versatile units are applicable to air conditioning applications. Field installed electric resistance heaters are available.

Section 1. Features

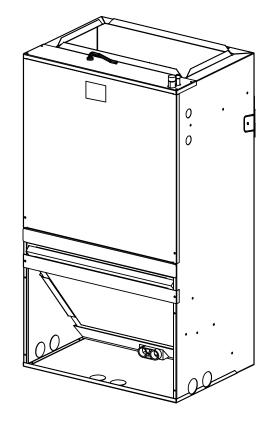
1.1 Standard Features

- FRONT OR BOTTOM RETURN AIR.
- PAINTED FINISH ON GALVANIZED STEEL
- STURDY POLYCARBONATE DRAIN PANS

 The TMM4A wall mount air handler has factory
 installed drain pans and is shipped for upflow
 applications only.
- 208/230 VAC OPERATION
- STUD OR WALL MOUNTING TABS
- FULLY INSULATED CABINET
- 3/4" NPT PRIMARY AND SECONDARY DRAINS

1.2 Optional Accessories

- 5, 7.5 and 10 kW SINGLE PHASE ELECTRIC HEATERS
 - Circuit breakers are standard on all single phase 5, 7.5 and 10 kW heaters.



Section 2. Safety Information

WARNING

SAFETY HAZARD! This information is intended for use by individuals possessing adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

HAZARDOUS VOLTAGE!

Disconnect all electrical power, including remote disconnects before installing or servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Failure to disconnect power before servicing could result in death or serious injury.

WARNING

LIVE ELECTRICAL COMPONENTS! During installation, testing, servicing, and troubleshooting of this product, it may be necessary to work with live electrical components. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

WARNING

EXPLOSION HAZARD!

Do not store corrosive or combustible materials, gasoline, or other flammable vapors or liquids near the unit. Failure to follow this warning could result in property damage, serious personal injury, or death.

WARNING

ELECTRICAL HAZARD!

Grounding Required! Follow proper local and state electrical code on requirements for grounding. Failure to follow this warning could result in property damage, serious personal injury, or death.

WARNING

HAZARDOUS VAPORS! Do not install an air handler with a non-ducted return in the same closet, alcove, or utility room as a fossil fuel device. Hazardous vapors can be distributed throughout the conditioned space and equipment damage can result.

Important: These instructions do not cover all variations in systems nor provide for every possible contingency to be met in connection with the installation. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to your installing dealer or local distributor.

Important: Installation of this unit shall be made in accordance with the National Electric Code, NFPA No. 90A and 90B, and any other local codes or utilities requirements.

Note: The small air handlers have been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent. "SUITABLE FOR MOBILE HOME USE."

CAUTION

CORROSION HAZARD! To prevent shortening its service life, the air handler should not be used during the finishing phases of construction. The low return air temperatures can lead to the formation of condensate. Condensate in the presence of chlorides and fluorides from paint, varnish, stains, adhesives, cleaning compounds, and cement creates a corrosive condition which may cause rapid deterioration of the cabinet and internal components.

CAUTION

SAFETY HAZARD! Sharp Edge Hazard. Be careful of sharp edges on equipment or any cuts made on sheet metal while installing or servicing. Personal injury may result.

WARNING

THIS PRODUCT CONTAINS FIBERGLASS WOOL INSULATION! FIBERGLASS DUST AND CERAMIC FIBERS ARE BELIEVED BY THE STATE OF CALIFORNIA TO CAUSE CANCER THROUGH INHALATION. GLASSWOOL FIBERS MAY ALSO CAUSE RESPIRATORY, SKIN, OR EYE IRRITATION.

PRECAUTIONARY MEASURES

- Avoid breathing fiberglass dust
- Use a NIOSH approved dust/mist respirator
- Avoid contact with the skin or eyes. Wear long-sleeved, loose fitting clothing, gloves, and eye protection.
- Wash clothes separately from other clothing, rinse washer thoroughly.

 Operations, such as sawing, blowing, tear-out, and spraying may generate fiber concentrations requiring additional respiratory protection. Use the appropriate NIOSH approved respirator in these situations.

FIRST AID MEASURES

EYE CONTACT: FLUSH EYES WITH WATER TO REMOVE DUST IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION. SKIN CONTACT: WASH AFFECTED AREA GENTLY WITH SOAP AND WARM WATER AFTER HANDLING.

Note: The manufacturer recommends installing ONLY A.H.R.I. approved, matched indoor and outdoor systems. Some of the benefits of installing approved matched indoor and outdoor split systems are maximum efficiency, optimum performance, and the best overall system reliability.



WARNING

Make sure the blower motor support is tight (3-motor mount bolts) then check to see if wheel is secured to motor shaft before operating unit.

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Section 3. Installation Instructions

3.1 Unpacking

Carefully unpack the unit and inspect the contents for damage. If any damage is found at the time of delivery, proper notification and claims should be made with the carrier.

Check the rating plate to assure model number and voltage, plus any kits match with what you ordered. The manufacturer should be notified within 5 days of any discrepancy or parts shortage.

3.2 Location

The small air handler should be centrally located and may be installed in a closet, alcove, utility room, basement. Minimum clearances must be met.

The air handler comes standard with two different options for mounting, wall mount or frame mount. Both mounting options require the unit to be level from side to side and from front to back in order to allow condensate to properly drain from the unit. Failure to do this will result in condensate to leak out from the unit potentially causing structural damage to the surrounding support structures, dry wall, carpet, etc. around the unit. Also, both mounting structures require the ability to accommodate a minimum of 150 lb load. Failure to do this will cause damage to the support structure and potentially damage the unit.

3.2.1 WALL MOUNT

The air handler comes standard with an upper and lower wall mount bracket. Reference Figure 3-1 for more detail.

 Remove lower wall mounting bracket from the back of the unit by removing one screw which attaches the bracket to the air handler.
 Note: Discard the screw after you have removed the wall mounting bracket.

2. Install bracket on the wall by using 3 wood screws (not provided). Make sure the bracket is level in order to provided proper drainage from the unit. Note: Do not attach the wall mounting bracket into unsupported dry wall. Make sure that the wood screws are going into a structure that can support a minimum of 150 lb load.

3. Lift the air handler above the wall mounting bracket and attached the unit to the installed bracket. Reference Figure 3-1.

4. Install the additional bottom plate for extra support for this type mounting (see figure 3-1).

Note: The additional plate is shipped in the bottom of the shipping carton (only for 30/36k unit).

3.2.2 FRAME MOUNT

The air handler comes with 8 clearance holes 4 on each side. These holes are used to mount the air handler inside of a frame structure (see Figure 3-2). When mounting in this fashion, make sure that the wood screws are mounted from within the air handler and not outside of the unit. Installing the screws from the outside of the unit, And notice don't damage to the coil.

For ensure the proper installation for frame mount, Select the enough solid and level site. Ensure enough space required for installation and maintenance(See Figure. 3-3)

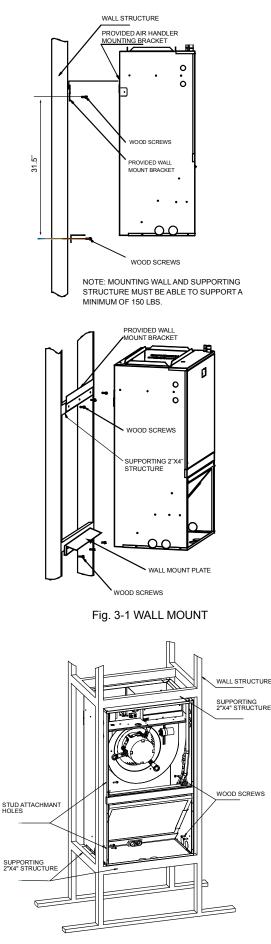
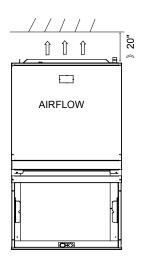


Fig. 3-2 FRAME MOUNT



Top view of the indoor unit clearance(including air duct).

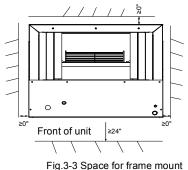
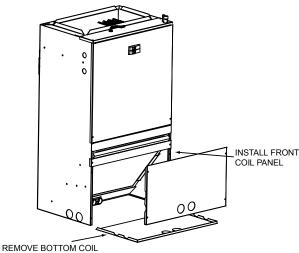


Fig.s-s Space for frame from

3.2.3 CONFIGURATIONS



PANEL OFF PLATE

Fig. 3-4 DIFFERENT AIR SUPPLY

Bottom Return Conversion: Divert the return air from the factory standard front return to a bottom return. Remove the cross brace when converting cabinet to bottom return.

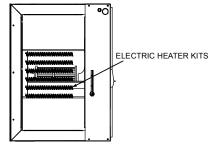


Fig. 3-5 HEATER ELEMENTS INSTALLATION

Field ductwork must comply with the National Fire Protection Association NFPA 90A, NFPA 90B and any applicable local ordinance.



Do not, under any circumstances, connect return ductwork to any other heat producing device such as fireplace insert, stove, etc. Unauthorized use of such devices may result in fire, carbon monoxide poisoning, explosion, personal injury or property damage.

Sheet metal ductwork run in unconditioned spaces must be insulated and covered with a vapor barrier. Fibrous ductwork may be used if constructed and installed in accordance with SMACNA Construction Standard on Fibrous Glass Ducts. Ductwork must comply with National Fire Protection Association as tested by U/L Standard 181 for Class I Air Ducts. Check local codes for requirements on ductwork and insulation.

• Duct system must be designed within the range of external static pressure the unit is designed to operate against. It is important that the system airflow be adequate. Make sure supply and return ductwork, grills, special filters, accessories, etc. are accounted for in total resistance. See airflow performance tables in this manual.

• Design the duct system in accordance with "ACCA" Manual "D" Design for Residential Winter and Summer Air Conditioning and Equipment Selection. Latest editions are available from: "ACCA" Air Conditioning Contractors of America, 1513 16th Street, N.W., Washington, D.C. 20036. If duct system incorporates flexible air duct, be sure pressure drop Information (straight length plus all turns) shown in "ACCA" Manual "D" is accounted for in system.

• Supply plenum is attached to the 3/4" duct flanges supplied with the unit.

IMPORTANT: If an elbow is included in the plenum close to the unit, it must not be smaller than the dimensions of the supply duct flange on the unit.

 IMPORTANT: The front flange on the return duct if connected to the blower casing must not be screwed into the area where the power wiring is located. Drills or sharp screw points can damage insulation on wires located inside unit.

 Secure the supply and return ductwork to the unit flanges, using proper fasteners for the type of duct used and tape the duct-to-unit joint as required to prevent air leaks.

3.4 Condensate Drain

The unit is supplied with primary and auxiliary condensate drains that have 3/4" NPT connections. Both drains must be trapped outside the unit and piped in accordance with applicable building codes. Do not reduce the drain line size less than the connection size on the drain pan. Condensate should be piped to an open drain or to the outside. All drains must pitch downward away from the unit a minimum of 1/4" per foot of line to ensure proper drainage. Insulate the primary drain line to prevent sweating where dew point temperatures may be met. (Insulation is optional depending on climate and application needs.)

Important: If cleanout Tee is used, standpipe must be sealed/capped.

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3.5 Refrigerant Piping

Refrigerant pipe connections are located on the top of the unit. Refrigerant piping external to the unit shall be sized in accordance with the instructions of the outdoor equipment. When units are recessed mounted in the wall, make certain that piping connections are pressure tested prior to the wall being closed. While brazing, be sure to protect the cabinet and grommets from heat damage.

3.6 Metering Device

All units are shipped and installed with throttle designed for air conditioning operation. Pressures equalize after shut down. Some outdoor models may require a start assist kit. See outdoor unit for more information.

3.7 Blower

This unit is supplied with a multi-speed PSC motor with a direct drive blower wheel which can obtain various air flows. The unit is shipped with factory set cooling and heating speed taps. Airflow performance tables are available for additional speed taps. Disconnect all power to the unit before making any adjustments to the motor speed taps. Be sure to check the air flow and the temperature drop across the evaporator coil to ensure sufficient air flow.

3.8 Wiring

Field wiring must comply with the National Electric Code (C.E.C. in Canada) and any applicable local ordinance.

WARNING

Disconnect all power to unit before installing or servicing. More than one disconnect switch may be required to de-energize the equipment. Hazardous voltage can cause severe personal injury or death.

3.8.1 POWER WIRING

It is important that proper electrical power is available for connection to the unit model being installed. See the unit nameplate, wiring diagram and electrical data in the installation instructions.

• If required, install a branch circuit disconnect of adequate size, located within sight of, and readily accessible to the unit.

• **IMPORTANT**: After the Electric Heater is installed, units are equipped with one 30-60 amp. circuit breaker. These breaker(s) protect the internal wiring in the event of a short circuit and serve as a disconnect. Circuit breakers installed within the unit do not provide over-current protection of the supply wiring and therefore may be sized larger than the branch circuit protection.

• Supply circuit power wiring must be 75°C minimum copper conductors only. See Electrical Data in this section for ampacity, wire size and circuit protector require ment. Supply circuit protective devices may be either fuses or "HACR" type circuit breakers.

· Power wiring may be connected to either the right or left side.

Two 7/8" dia. concentric knockouts are provided for connection of power wiring to unit.

Power wiring is connected to the power terminal block in unit electric cabinet.

3.8.2 CONTROL WIRING

IMPORTANT: Class 2 low voltage control wiring should not be run in conduit with main power wiring and must be separated from power wiring, unless class 1 wire of proper voltage rating is used.

• Low voltage control wiring should be 18 Awg. color-coded. For lengths longer than 100 ft., 16 Awg. wire should be used.

• Low voltage control connections are made to low voltage pigtails extending from top of air handler (see Figure 1). Connections for control wiring are made with wire nuts. Control wiring knockouts (7/8") are also provided on the right and left side of the unit for side connection.

See wiring diagrams attached to indoor and outdoor sections to be connected.

 Make sure, after installation, separation of control wiring and power wiring has been maintained.

3.8.3 GROUNDING

WARNING

The unit must be permanently grounded. Failure to do so can result in electrical shock causing personal injury or death.

 Grounding may be accomplished by grounding metal conduit when installed in accordance with electrical codes to the unit cabinet or by attaching ground wire(s) to ground lug(s) provided in the unit wiring compartment.

 Ground lug(s) are located close to wire entrance on left side of unit (up-flow). Lug(s) may be moved to marked locations near wire entrance on right side of unit (upflow). If alternate location is more convenient.

• Use of multiple supply circuits require grounding of each circuit to lug(s) provided in unit.

3.9 Air Filter

To protect the coil, blower and other internal parts from excessive dirt and dust an air filter must be installed before air enters the evaporator coil. A filter must be installed. Consult the filter manufacturer for proper sizing and maximum velocity requirements.

Filter Sizes

MODEL	FILTER SIZE IN [mm]
18/24	16X20[406X508]
30/36	20X20[508X508]

3.10 Thermostat

Select a thermostat that is commonly used with AC single stage cooling with electric heat. The thermostat will energize the fan on a demand for cool.

Install the thermostat on an inside wall, away from drafts, lights or other heat sources in a location that has sufficient air circulation from other rooms being controlled by the thermostat. The thermostat should be mounted 4 to 5 feet above the floor.

3.11 Sequence of Operation

Cooling (cooling only)

When the thermostat calls for cooling, the circuit from R to G is completed. The blower motor is energized directly by the 24VAC signal from the thermostat.

The circuit from R to Y is also complete energizing the compressor contactor of the outdoor unit. The contactor will close and start the compressor and condenser fan motor.

Heating (electric heat only)

Note: The thermostat must be setup to bring the blower on when the electric heat is energized.

When the thermostat calls for heating, the circuit from R to G is completed and the blower motor is energized directly by the 24VAC signal from the thermostat. The circuit from R to W is completed energizing the heating contactor(s).

3.12 Operational And Checkout Procedures

To obtain proper performance, all units must be operated and charge adjustments made in accordance with procedures found in the Service Facts document of the outdoor unit.

After installation has been completed, it is recommended that the entire system be checked against the following list:

[] 1. Be sure unit suspension (if used) is secure and there are no tools or loose debris in, around or on top of the unit.

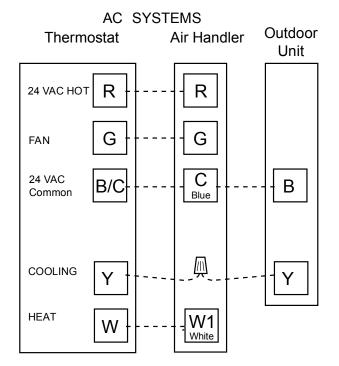
- [] 2. Properly insulate suction lines and fittings.
- [] 3. Properly secure and isolate all refrigerant lines.
- [] 4. Verify that all electrical connections are tight.
- [] 5. Check all duct outlets; they must be open and unrestricted.
- [] 6. Check drain lines and be sure all joints are tight.
- [] 7. Be sure the return air filter is installed.

[] 8. Operate complete system in each mode to verify proper performance. Verify operation of supplementary electric heater.

3.13 Maintenance

The system air filter(s) should be inspected, cleaned or replaced at least monthly. Make certain that the access panels are replaced and secured properly before placing the unit back in operation. This product is designed for dependable service; however, periodic maintenance should be scheduled and conducted by trained professional service personnel. This service should be conducted at least annually, and should include testing and inspection of electrical and refrigerant components. The heat transfer surface should be cleaned. The blower motor is permanently lubricated for normal operating conditions.

Section 4. Wiring



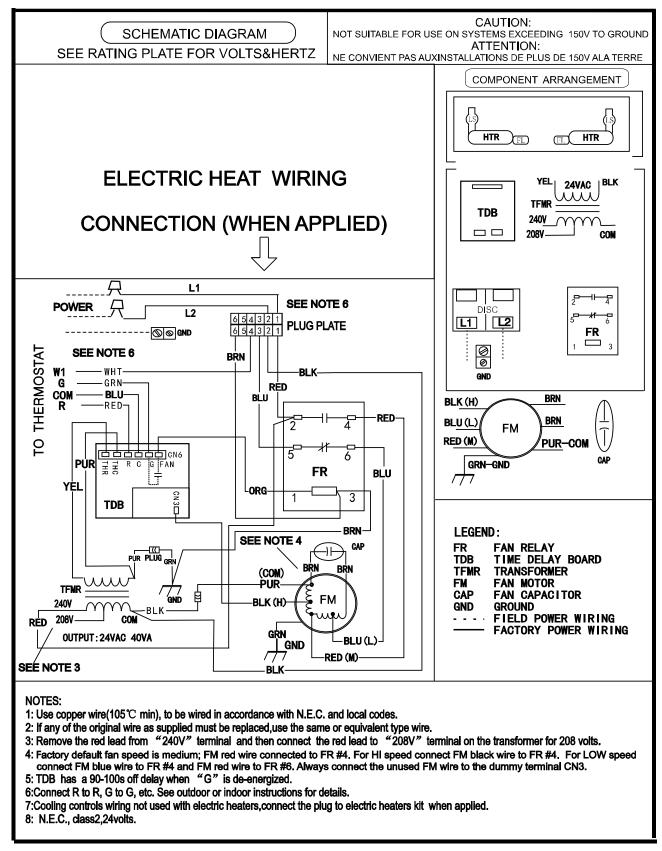


Fig. 4-1

Section 5. - Heater Pressure Drop Table - Use For All TMM4A Wall Mount Air Handler Models

NUMBER OF RACKS							
MODEL	AIRFLOW	1	2	3			
MODEL	CFM	AIR PRESS	URE DROP - IN	ICHES W.G.			
	1400	0.06	0.08	0.08			
	1300	0.06	0.08	0.08			
	1200	0.06	0.08	0.08			
	1100	0.06	0.08	0.08			
TMM4A0B30, 36	1000	0.06	0.08	0.08			
	900	0.04	0.06	0.06			
	800	0.04	0.06	0.06			
	700	0.04	0.06	0.06			
	900	0.04	0.06	0.06			
TMM4A0A18. 24	800	0.04	0.06	0.06			
11010, 24	700	0.04	0.06	0.06			
	600	0.04	0.06	0.06			
	500	0.04	0.06	0.06			

HEATER RACKS							
HEATER MODEL	NO. OF RACKS						
BAYHTRM505BRKAA	1						
BAYHTRM508BRKAA	2						
BAYHTRM510BRKAA	3						

Accessory Heater Usage

NUMBER OF RACKS	SIZES USED WITH	kW	INTERNAL CIRCUIT PROTECTION
1	18-36	5	Circuit Breaker
2	18-36	7.5	Circuit Breaker
3	18-36	10	Circuit Breaker

Minimum CFM

MODEL	NUMBER OF RACKS						
MODEL	1	2	3				
TMM4A0A18M21SA	450	500	600				
TMM4A0A24M21SA	450	500	600				
TMM4A0B30M21SA	700	725	750				
TMM4A0B36M31SA	700	725	750				

Section 6. Performance and Electrical Data

Airflow performance data is based on cooling performance with a coil and no filter in place. Select performance table for appropriate unit size external static applied to unit allows operation within the minimum and maximum limits shown in table below for both cooling and electric heat operation.

N 4 - st - t	Matai		CFM(Watts)										
Model Number	Motor Speed			External Static Pressure-Inches W.C.[kPa]									
Number			[0]0	0.1[.02]	0.16[.04]	0.2[.05]	0.3[.07]	0.4[.10]	0.5[.12]	0.6[.15]	0.7[.17]	0.8[.20]	
		CFM	590	556	526	520	481	437	387	-	-	-	
	Low	RPM	598	645	686	696	745	790	836	-	-	-	
	LOW	Watts	168	165	161	161	156	150	145	-	-	-	
		Amps	0.75	0.73	0.72	0.72	0.7	0.68	0.66	-	-	-	
		CFM	686	650	621	615	578	536	486	-	-	-	
18	Middle	RPM	685	719	749	759	799	837	873	-	-	-	
10	wildule	Watts	184	178	174	174	170	164	158	-	-	-	
		Amps	0.81	0.78	0.77	0.77	0.75	0.73	0.71	-	-	-	
		CFM	796	760	733	725	685	644	596	541	477	400	
	High	RPM	778	805	827	836	867	906	929	956	984	1011	
		Watts	236	232	227	227	220	213	205	196	188	179	
		Amps	1.04	1.02	1.01	1.0	0.98	0.95	0.92	0.89	0.86	0.83	
	Low	CFM	696	662	632	624	583	537	485	-	-	-	
		RPM	700	741	767	774	808	843	882	-	-	-	
	LOW	Watts	198	193	190	188	183	178	170	-	-	-	
		Amps	0.89	0.88	0.86	0.86	0.84	0.82	0.8	-	-	-	
		CFM	850	814	775	766	720	672	617	-	-	-	
24	Middle	RPM	837	861	878	885	903	923	945	-	-	-	
27	winduic	Watts	236	231	227	226	221	217	211	-	-	-	
		Amps	1.03	1.01	1.0	0.99	0.98	0.96	0.94	-	-	-	
		CFM	938	894	860	859	813	764	710	674	573	465	
	High	RPM	921	937	950	953	967	980	994	1010	969	1051	
	- Ingri	Watts	300	295	289	283	283	277	271	263	254	242	
		Amps	1.33	1.31	1.29	1.26	1.26	1.24	1.22	1.19	1.16	1.12	

Model	Motor		CFM(Watts)										
Number				External Static Pressure-Inches W.C.[kPa]									
Number	Speed		0[0]	0.1[.02]	0.2[.05]	0.24[.06]	0.3[.07]	0.4[.10]	0.5[.12]	0.6[.15]	0.7[.17]	0.8[.20]	
		CFM	997	948	903	891	861	809	760	-	-	-	
	Low	RPM	755	789	817	828	846	870	903	-	-	-	
	LOW	Watts	305	295	287	283	278	271	263	-	-	-	
		Amps	1.53	1.51	1.49	1.48	1.47	1.46	1.44	-	-	-	
		CFM	1187	1125	1076	1055	1021	974	912	-	-	-	
30	Middle	RPM	875	899	916	924	935	952	967	-	-	-	
30	Midule	Watts	339	331	324	321	317	309	302	-	-	-	
		Amps	1.67	1.66	1.64	1.63	1.62	1.61	1.59	-	-	-	
		CFM	1306	1249	1195	1166	1132	1069	1008	937	860	759	
	High	RPM	956	968	982	987	994	1007	1015	1027	1041	1054	
		Watts	427	417	409	406	400	391	384	375	363	351	
		Amps	2.20	2.18	2.16	2.15	2.15	2.13	2.11	2.09	2.07	2.05	
		CFM	1106	1056	1007	990	960	918	857	-	-	-	
	Low	RPM	818	843	868	878	893	916	941	-	-	-	
	LOW	Watts	371	361	349	346	338	328	316	-	-	-	
		Amps	1.62	1.58	1.53	1.52	1.49	1.44	1.4	-	-	-	
		CFM	1269	1213	1153	1131	1097	1069	973	-	-	-	
36	Middle	RPM	920	933	947	956	965	982	997	-	-	-	
	Midule	Watts	410	401	391	385	380	368	357	-	-	-	
		Amps	1.79	1.74	1.70	1.67	1.65	1.60	1.55	-	-	-	
		CFM	1375	1320	1267	1248	1204	1142	1082	1011	919	801	
	High	RPM	986	996	1007	1011	1018	1030	1040	1051	1063	1079	
	riigii	Watts	461	450	440	436	427	416	402	388	376	358	
		Amps	2.01	1.96	1.92	1.90	1.87	1.81	1.76	1.70	1.65	1.57	

- Shaded boxes represent airflow outside the required 300-450 cfm/ton.

NOTES:

- 1. Airflow based upon dry coil at 230V with no electric heat, no filter.
- 2. Airflow is equivalent for front or bottom return configurations.
- 3. SCFM is nearly the same with cooling performance airflow, the gap is in the 1 to 2%.

The air distribution system has the greatest effect on airflow. The duct system is totally controlled by the contractor. For this reason, the contractor should use only industry-recognized procedures.

Duct design and construction should be carefully done. System performance can be lowered dramatically through bad planning or workmanship. Air supply diffusers must be selected and located carefully. They must be sized and positioned to deliver air along the perimeter of the space. If they are too small for their intended airflow, they become noisy. If they are not located properly, they cause drafts. Air grilles must be properly sized to carry air back to the blower. If they are too small, they also cause noise.

The installers should balance the air distribution system to ensure proper quiet airflow to all rooms in the home. This ensures a comfortable living space.

Section 7. Dimensional Data

6.1 UNIT DIMENSIONS

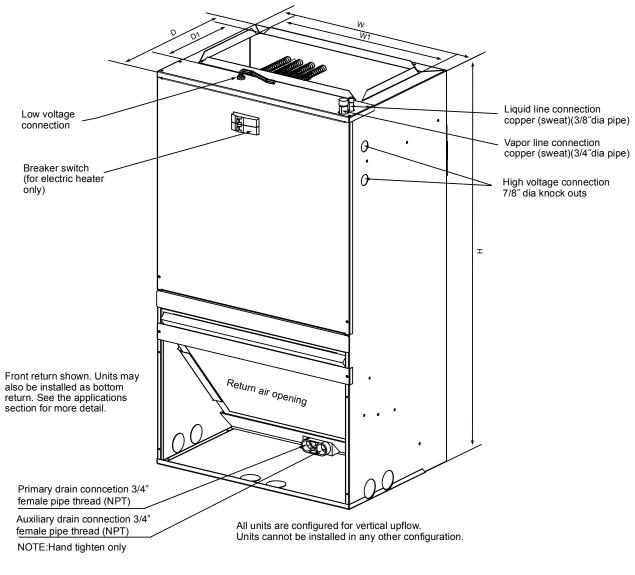


Fig. 6-1 DIMENSIONS

DIMENSIONAL DATA

		UNIT WEIGHT				
MODEL SIZE	UNIT HEIGHT	UNIT WIDTH	UNIT WIDTH	UNIT LENGHT	UNIT LENGHT	/SHIPPING WEIGHT
	"H" IN. [mm]	"W" IN.[mm]	"W1" IN.[mm]	"D" IN.[mm]	"D1" IN.[mm]	(LBS.[kg])
18	36-1/2"[928]	20-1/2"[522]	172/5"[422]	15"[381]	9-1/2"[242]	88/99 [40]/[45]
24	36-1/2"[928]	20-1/2"[522]	172/5"[422]	15"[381]	9-1/2"[242]	88/99 [40]/[45]
30	39-1/2"[1004]	22"[559]	184/5"[477]	19"[483]	9-1/2"[242]	110/121 [50]/[55]
36	39-1/2"[1004]	22"[559]	184/5"[477]	19"[483]	9-1/2"[242]	110/121 [50]/[55]

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The manufacturer has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice. © Trane U.S. Inc. 2013

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