



**ENGINEERING DATA**

**TA**

**T-CLASS™ SPLIT SYSTEM UNITS  
UP-FLOW/HORIZONTAL - R-410A - 60 HZ**

Bulletin No. 210522

April 2009

Supersedes February 2009



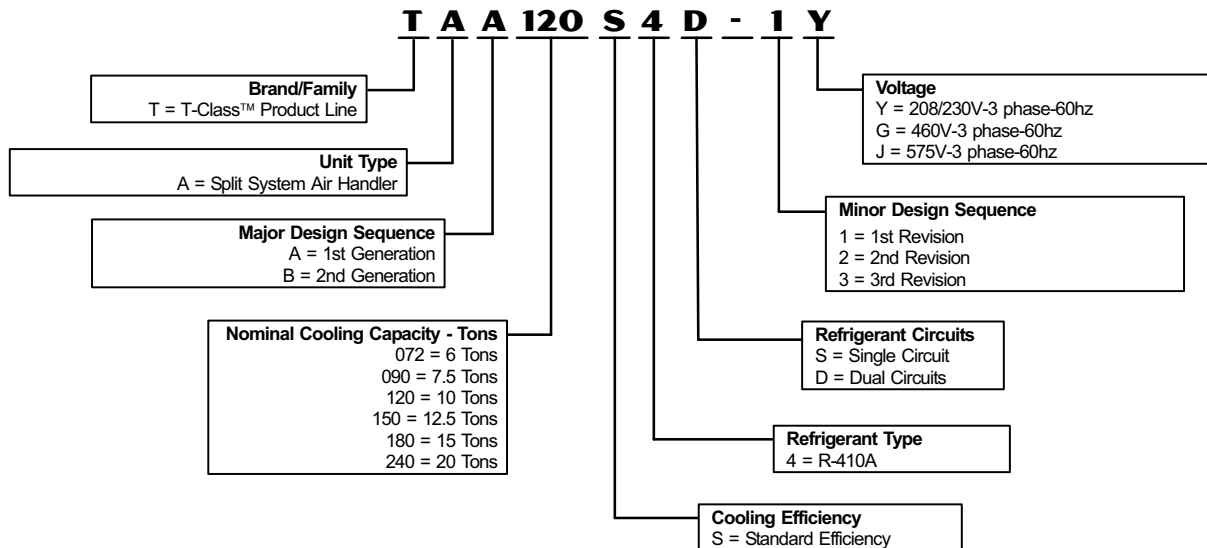
072-090-120-150 Models



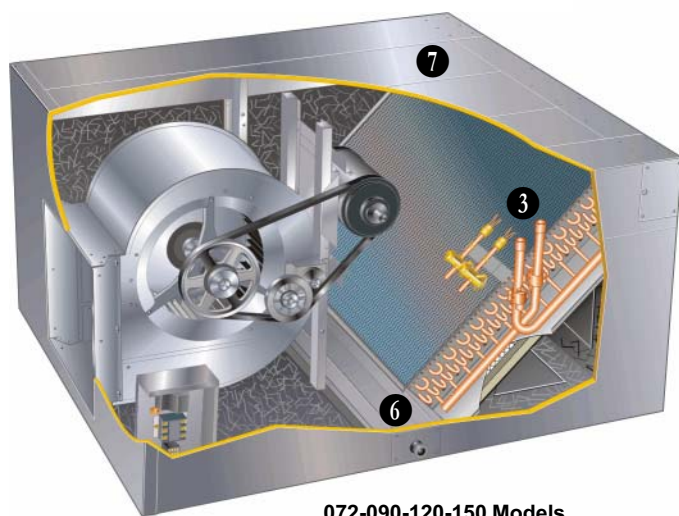
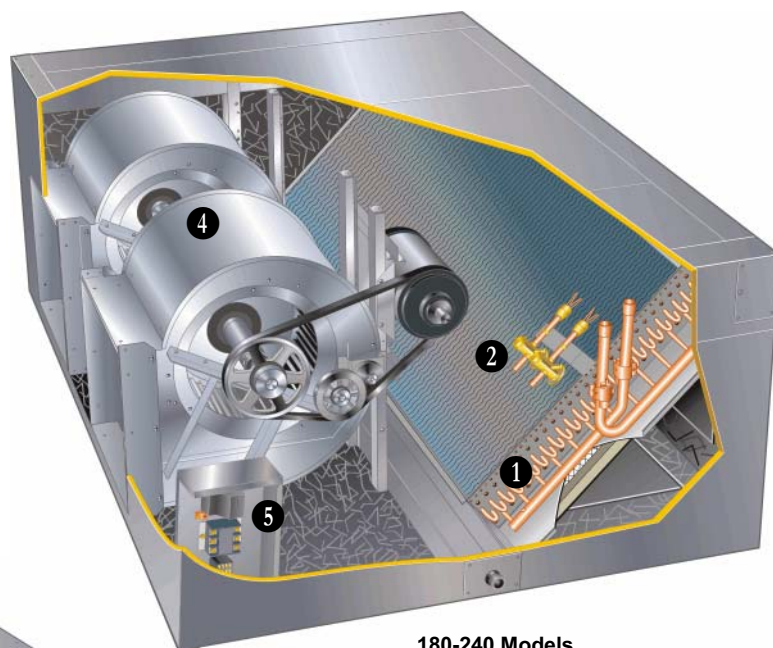
180-240 Models

**Nominal Capacity - 6 to 20 Tons  
Optional Electric Heat - 10 to 50 kW**

**MODEL NUMBER IDENTIFICATION**



## FEATURES AND BENEFITS



## FEATURES AND BENEFITS

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### **EQUIPMENT WARRANTY**

All covered components have a limited warranty for one year.

Refer to Lennox Equipment Limited Warranty certificate for specific details.

### **APPROVALS**

Tested with matching air conditioner and heat pump units in the Lennox Research Laboratory environmental test room in accordance with the ULE certification program, which is based on ARI Standard 340/360-2007.

Blower data is from unit tests conducted in the Lennox Laboratory air test chamber.

Units and components within are bonded for grounding to meet safety standards for servicing required by CSA, NEC and CEC.

All units are ETL listed.

Units manufactured in accordance with ISO 9001 quality standards.

## FEATURES AND BENEFITS

### APPLICATIONS

Provides installation versatility and maximum efficiency in cooling performance, air handling and filtering in cooling or heat pump applications.

Convertible up-flow or horizontal design.

Equipped with single circuit (072) or dual-circuit (090-240) indoor coils, suitable for application with Lennox 6 to 20 ton TSA air conditioners or 7.5 to 10 ton TPA heat pump outdoor units.

Each refrigerant circuit has a dedicated expansion valve. 090-240 models have a dual distribution system for two stage capacity control during cooling cycles.

Air handlers are shipped factory assembled ready to install. Standard static blower drive is furnished factory installed. Low or high static drive options are available as factory installed options. See Blower Drive Specifications Table for selections.

See air conditioners bulletins in Air Conditioners section for cooling capacities and ratings.

See heat pump bulletins in Heat Pump Outdoor Units section for cooling and heating capacities and ratings.

### REFRIGERANT SYSTEM

#### 1 Multi-Circuit, Copper Tube Coil

Extra large surface area of Lennox designed coil provides maximum cooling efficiency, excellent heat transfer and low air resistance.

Coils on 090-240 models are face split with separate circuits, each circuit has its own expansion valve.

Precise circuiting gives uniform refrigerant distribution.

Lennox fabricated coil is constructed of precisely spaced lanced aluminum fins fitted to durable seamless, rifled copper tubes.

Rifled tubing provides enhanced heat transfer which results in maximum coil performance when combined with the Lennox fin design.

Fins are strengthened to resist bending and are equipped with collars that grip tubing for maximum contact area.

Flared tubing connections and silver soldering provide tight, leakproof joints.

Long life copper tubing is corrosion-resistant and easy to field service.

Coil is thoroughly factory tested under high pressure to ensure leakproof construction.

#### 2 Expansion Valve

For use with R-410A systems.

Factory installed and piped.

Multi-circuit coils are equipped with one thermal expansion valve per circuit.

Valves are sized for best performance.

090 and 120 models have internal check valves for use with heat pump systems.

#### 3 Refrigerant Piping and Drain Connections

Refrigerant line inlets (knockouts) are provided on both sides of the cabinet.

Refrigerant lines require sweat connections and are made internal to the cabinet.

Condensate drain outlet extends outside the cabinet for ease of connection. Condensate drain can be relocated to other side of cabinet and can be repositioned for horizontal air flow applications.



### OPTIONS

#### Field Installed

##### Freezestat

Protects the evaporator coil from damaging ice build-up due to conditions such as low/no air flow, or low refrigerant charge.

##### Heat Pump Check Valve Kit (180-240 Models Only)

Field installed kit contains valve assemblies that field convert the coil to allow it to be matched with two smaller heat pump outdoor units.

### INDOOR AIR QUALITY

#### Filters

2 inch thick, throwaway fiberglass media filters are furnished as standard.

Filter rack design permits quick and easy removal of filters for servicing.

### OPTIONS

#### Field Installed

##### Healthy Climate® High Efficiency Air Filters

Disposable MERV 10 or MERV 16 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 5 inch pleated filters.

5 inch pleated filters offer longer filter life and better filtration efficiency compared to standard 2 inch filters.

##### 5 Inch Filter Mounting Kits

Required for use with Healthy Climate MERV 10 or MERV 16 filters. Kit includes filter rack for 5 inch filters.

##### Healthy Climate® UVC Germicidal Light Kits

Healthy Climate® UVC light kits are specifically designed for the TA air handlers and attach directly to the indoor coil air shields without tools or fasteners at the optimal distance and location required. The UVC lights are sized to optimize the reduction of mold and other bioaerosols (bacteria and viruses) on the coil surface. In addition, the lights are equipped with unique (patent pending) directional honeycomb shields to focus the UVC light on the coil surface where it is needed and reduce the exposure of light on other components and access panels for improved safety and overall effectiveness.

Enhanced rapid start ballast provides UVC lamp operation at a full range of operating conditions.

LED's on ballast show lamp operation status.

“Green” LED indicates power “on”.

“Blue” LED indicates lamp operation.

Germicidal lamps emit ultra-violet (UVC) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds. This process either destroys the organism or controls its ability to reproduce.

Lamps operate on 208/230V/1ph power supply. Step-down transformer is available for models used with 460V and 575V air handlers. Order separately.

Lamps may be operated from separate 208/230V/1ph power source.

All necessary hardware for installation is furnished.

Approved by ETL.

## FEATURES AND BENEFITS

### 4 BELT DRIVE BLOWERS

072-090-120-150 models are equipped with a single blower wheel, 180 and 240 models have dual blower wheels.

Centrifugal belt driven blowers deliver large air volumes quietly and with low power consumption.

Blower wheels are heavy-duty, with forward curved blades and double inlet.

Wheels are statically and dynamically balanced to eliminate vibration and designed to give maximum air delivery.

Bearings are heavy-duty, permanently sealed and lubricated.

Belt tension is automatically controlled by auto tensioning device.

Adjustable motor pulley allows speed adjustments.

Standard static drive is furnished factory installed. See Blower Drive Specifications table for optional factory installed low and high static drives available.

#### OPTIONS

##### Factory Installed

##### Low or High Static Drives

A choice of optional low or high static drives are available for factory installation. See Blower Drive Specifications table.

#### CONTROLS

### 5 Control Box

Control box located in separate compartment in unit cabinet. Box may be relocated to alternate location for easier access depending on application. See dimension drawings.

Low voltage terminal strip factory installed.

Blower contactor furnished and factory installed in control box.

All controls are pre-wired at the factory.

#### OPTIONS

##### Field Installed

##### Commercial Control Systems L Connection® Network

Complete building automation control system for single or multi-zone applications.

Options include local interface, software for local or remote communication, and hardware for networking other control functions.

See L Connection Network Engineering Handbook Bulletin for details.

### 6 CABINET

Cabinet is constructed of heavy-gauge, galvanized steel. Cabinet is completely lined with thick fiberglass insulation resulting in quiet and efficient operation due to the excellent sound deadening and insulating qualities of fiberglass.

Supply and return air duct flanges are furnished for field installation. See dimension drawings.

Service access is provided on three sides (072-150) and four sides (180-240) of unit.

Large removable panels provide complete service access on one side of unit.

Electrical inlets are conveniently located in the cabinet. See dimension drawings

### 7 Drain Pan

Deep, corrosion resistant plastic drain pan.

Reversible drain pan allows for drain outlets on either end of cabinet and can be repositioned for horizontal air flow applications.

#### OPTIONS

##### Factory Installed

##### Corrosion Protection

Polymeric epoxy coating that is deposited by electrical transport (electrophoresis), using a process known as electrocoat (e-coat). Available for enhanced coil corrosion protection. Factory installed on the indoor coil. Blower housing is painted when this option is ordered.

##### Field Installed

##### Float Switch

Prevents condensate overflow by turning the unit off when the condensate level is abnormally high.

##### Return Air Grilles

Anodized aluminum grille field installs in return air opening of air handler.

##### Return Air Grille Free Area

T2GARD30L-1 - 4.1 sq. ft.

T2GARD30M-1 - 5.9 sq. ft.

T2GARD30N-1 - 7.6 sq. ft.

## **OPTIONS / ACCESSORIES**

### **ELECTRIC HEAT SECTION**

Furnished in a separate add-on matching cabinet.  
Mounting hardware is furnished to secure cabinets together.  
Pre-punched mounting holes are furnished for aligning electric heat section to air handler supply air flange.  
Removable panel permits service access.  
Electrical inlet provides wiring entry.  
Field installed electric heaters are available in several kW sizes, see Electric Heat Data table.  
Helix wound, nichrome heating elements are exposed directly in the air stream resulting in instant heat transfer, lower coil temperatures and long service life.  
Elements are accurately located and insulated from the heavy-gauge steel support frame by high quality insulators.  
Elements are equipped with individual limit controls providing positive protection in case of overheating.  
Sub-fusing, contactors, control relays, 24V transformer are furnished.  
Certain electric heat sizes may be two-stage controlled (with field provided control) with each stage being energized only when required. See Electric Heat Tables.

### **HOT WATER COIL**

Furnished in a separate add-on matching cabinet.  
Mounting hardware is furnished to secure cabinets together.  
Pre-punched mounting holes are furnished for aligning cabinet to air handler.  
Cabinet is constructed of heavy-gauge galvanized steel. Completely insulated with thick, foil-faced fiberglass insulation.  
Removable panel permits service access.  
Cabinet is reversible to allow piping on either side of unit.  
Lennox designed and built coil has large face area, excellent heat transfer and low air resistance.  
Constructed of precisely spaced ripple-edged aluminum fins fitted to durable copper tubes.  
Fins are equipped with collars that grip tubing for maximum contact area.  
Flared shoulder tubing connections and silver soldering provide tight, leakproof joints.  
Long life copper tubing is easy to field service.  
Coil is thoroughly factory tested under high pressure to ensure leakproof construction.  
Valves and pumps must be furnished by installer.

### **ECONOMIZER DAMPER SECTION**

Factory assembled and wired economizer dampers and controls are available for field installation.  
Heavy-gauge galvanized steel cabinet is completely insulated with thick, matte-faced fiberglass insulation.  
Large removable panels on both sides of cabinet provide complete service access.  
Mounting flanges provide ease of connection to blower-coil unit.  
Flanges on outdoor air opening and return air opening permit easy duct connection.  
Economizer has mechanically linked outdoor air and recirculated air dampers.  
Formed dampers rotate smoothly in nylon bearings.  
Outdoor air dampers are reinforced and gasketed for tight seal and quiet operation.  
Damper linkage and shafts are plated.  
The positioning of the dampers is accomplished by a 24V fully-modulating, electronic spring return damper motor with adjustable minimum position potentiometer and controlled by the room thermostat, adjustable mixed air sensor and adjustable enthalpy control.  
The enthalpy control allows 0 to 100% outdoor air to be used for "free cooling" when outdoor temperature and humidity are acceptable.

#### **Differential Enthalpy Control**

An optional, return air enthalpy sensor can be ordered extra for field installation. Allows the outdoor air enthalpy control to select between outdoor air or return air, whichever has lower enthalpy. Field installed in economizer damper section.

## SPECIFICATIONS

General Data	Model No.	TAA072S4S	TAA090S4D
	Nominal Tonnage	6	7.5
Connections	Liquid line o.d. - in. (sweat)	(1) 5/8	(2) 5/8
	Suction/Vapor line o.d. - in. (sweat)	(1) 1-1/8	(2) 7/8
	Condensate drain - in. (fpt)	1 (NPT)	1 (NPT)
Refrigerant	Not Furnished	R-410A	R-410A
Evaporator Coil	Net face area - sq. ft.	8.2	8.2
	Coil (Face) Split - 1st stage / 2nd stage (%)	- - -	50 / 50
	Tube diameter - in.	3/8	3/8
	Number of rows	3	4
	Fins per inch	14	14
Blower and Drive		See Blower Drive Specifications Table on Page 14	
	Wheel nominal diameter & width - in.	(1) 15 x 15	(1) 15 x 15
Filter	Number and size - in.	(3) 16 x 25 x 2	(3) 16 x 25 x 2

## SPECIFICATIONS

General Data	Model No.	TAA120S4D	TAA150S4D	TAA180S4D	TAA240S4D
		Nominal Tonnage	10	12.5	15
Connections	Liquid line o.d. - in. (sweat)	(2) 5/8	(2) 5/8	(2) 5/8	(2) 5/8
	Suction/Vapor line o.d. - in. (sweat)	(2) 7/8	(2) 7/8	(2) 1-1/8	(2) 1-1/8
	Condensate drain - in. (fpt)	1 (NPT)	1 (NPT)	1 (NPT)	1 (NPT)
Refrigerant	Not Furnished	R-410A	R-410A	R-410A	R-410A
Evaporator Coil	Net face area - sq. ft.	11.3	11.3	16.9	16.9
	Coil (Face) Split - 1st stage / 2nd stage (%)	50 / 50	50 / 50	50 / 50	50 / 50
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Number of rows	4	4	3	4
	Fins per inch	14	14	14	14
Blower and Drive		See Blower Drive Specifications Table on Page 14			
	Wheel nominal diameter & width - in.	(1) 15 x 15	(1) 15 x 15	(2) 15 x 15	(2) 15 x 15
Filter	Number and size - in.	(4) 16 x 25 x 2	(4) 16 x 25 x 2	(6) 16 x 25 x 2	(6) 16 x 25 x 2

## OPTIONS / ACCESSORIES

Item	Catalog No.	072	090	120	150	180	240
<b>BLOWER</b>							
<b>Blower Drives</b>							
		See Blower Drive Specifications Table on Page 14					
<b>CABINET</b>							
Corrosion Protection	Factory	○	○	○	○	○	○
Float Switch	T2SNSR71LN1-47W40	x	x	x	x	x	x
Return Air Grille	T2GARD30L-1-47W49	x	x				
	T2GARD30M-1-47W50			x	x		
	T2GARD30N-1-47W51					x	x
<b>CONTROLS</b>							
L Connection® Network	See separate bulletin	x	x	x	x	x	x

**NOTE** - The catalog and model numbers that appear here are for ordering field installed accessories only.

○ - Factory Installed with extended lead time.

x - Field Installed.

## OPTIONS / ACCESSORIES

Item		Catalog No.	072	090	120	150	180	240
<b>ELECTRIC HEAT</b>								
10 kW	208/240V-3ph - T3EH0010LM1Y	46W50	x	x	x	x		
	460V-3ph - T3EH0010LM1G	46W55	x	x	x	x		
	575V-3ph - T3EH0010LM1J	46W60	x	x	x	x		
15 kW	208/240V-3ph - T3EH0015LM1Y	46W51	x	x	x	x		
	460V-3ph - T3EH0015LM1G	46W56	x	x	x	x		
	575V-3ph - T3EH0015LM1J	46W61	x	x	x	x		
25 kW	208/240V-3ph - T3EH0025LM1Y	46W52	x	x	x	x		
	460V-3ph - T3EH0025LM1G	46W57	x	x	x	x		
	575V-3ph - T3EH0025LM1J	46W62	x	x	x	x		
35 kW	208/240V-3ph - T3EH0035LM1Y	46W53		x	x	x		
	460V-3ph - T3EH0035LM1G	46W58		x	x	x		
	575V-3ph - T3EH0035LM1J	46W63		x	x	x		
20 kW	208/240V-3ph - T3EH0020N-1Y	46W65					x	x
	460V-3ph - T3EH0020N-1G	46W69					x	x
	575V-3ph - T3EH0020N-1J	46W73					x	x
30 kW	208/240V-3ph - T3EH0030N-1Y	46W66					x	x
	460V-3ph - T3EH0030N-1G	46W70					x	x
	575V-3ph - T3EH0030N-1J	46W74					x	x
40 kW	208/240V-3ph - T3EH0040N-1Y	49W39					x	x
	460V-3ph - T3EH0040N-1G	49W40					x	x
	575V-3ph - T3EH0040N-1J	49W41					x	x
50 kW	208/240V-3ph - T3EH0050N-1Y	46W67					x	x
	460V-3ph - T3EH0050N-1G	46W71					x	x
	575V-3ph - T3EH0050N-1J	46W75					x	x
<b>ECONOMIZER</b>								
	T2ECON31L-1-	44W94	x	x				
	T2ECON31M-1-	44W95			x	x		
	T2ECON31N-1-	44W96					x	x
<b>Economizer Controls</b>								
Differential Enthalpy Control		17W71	x	x	x	x	x	x
<b>HOT WATER COIL</b>								
	T2HWCL10LM1-	44W20	x	x	x	x		
	T2HWCL10N-1-	44W21					x	x
<b>INDOOR AIR QUALITY</b>								
<b>Air Filters</b>								
<sup>1</sup> Healthy Climate® High Efficiency Air Filters (16 x 25 x 5)	MERV 10 - HCF16-10	X6670	x	x	x	x	x	x
	MERV 16 - HCF16-16	X6672	x	x	x	x	x	x
5 Inch Filter Mounting Kits	T2FLTR70L-1-	47W71	x	x				
	T2FLTR70M-1-	47W72			x	x		
	T2FLTR70N-1-	47W73					x	x
Healthy Climate® UVC Light Kit (208/230V-1ph)	208/230V - T2UVCL10LM1	46W43	x	x	x	x		
	208/230V - T2UVCL10N-1	46W44					x	x
	<sup>2</sup> 460V/230V Step-Down Transformer	96M07	x	x	x	x	x	x
	<sup>2</sup> 575V/230V Step-Down Transformer	96M08	x	x	x	x	x	x
<b>REFRIGERANT SYSTEM</b>								
Freezestat	T2SNSR70N1-	47W41	x	x	x	x	x	x
Heat Pump Check Valve Kit	T2CVLV10N-1-	47W48					x	
	T2CVLV11N-1-	50W73						x

**NOTE** - The catalog and model numbers that appear here are for ordering field installed accessories only.

X - Field Installed.

<sup>1</sup> Order 5 in. Filter Mounting Kit and required number of MERV 10 or MERV 16 filters: - (3) 072-090, (4) 120-150, (6) 180-240.

<sup>2</sup> Step-down transformer (460V or 575V to 208/230V-1ph) or separate power supply is required.

## BLOWER DATA

### TAA072 BLOWER PERFORMANCE

All data is measured external to the unit with dry coil and standard 2 in. air filters in place.

FOR ALL UNITS ADD:

1 - Wet indoor coil air resistance of selected unit.

2 - Any field installed accessories air resistance (electric heat, economizer, etc.) See page 15.

Then determine from table the blower motor hp and drive rpm required. See page 14 for blower drive specifications.

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge															
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	428	0.57	479	0.66	531	0.74	581	0.81	629	0.88	675	0.94	718	1.01	758	1.07
2000	434	0.59	486	0.69	538	0.77	589	0.84	637	0.91	682	0.98	725	1.05	765	1.11
2100	441	0.62	493	0.72	545	0.8	596	0.88	644	0.95	689	1.02	732	1.09	771	1.15
2200	448	0.65	501	0.75	553	0.83	604	0.91	652	0.98	696	1.06	738	1.13	778	1.2
2300	456	0.68	508	0.78	561	0.86	612	0.94	659	1.02	704	1.1	746	1.17	785	1.24
2400	463	0.71	516	0.81	569	0.9	620	0.98	667	1.06	711	1.14	753	1.22	792	1.29
2500	470	0.74	524	0.84	578	0.94	629	1.02	675	1.1	719	1.19	760	1.27	798	1.34
2600	478	0.77	533	0.88	587	0.98	637	1.06	683	1.15	726	1.24	767	1.32	805	1.39
2700	486	0.81	542	0.92	596	1.02	646	1.11	692	1.2	734	1.29	775	1.37	812	1.45
2800	495	0.85	552	0.96	606	1.07	655	1.16	700	1.25	742	1.34	782	1.42	819	1.5
2900	504	0.89	561	1.01	616	1.11	665	1.2	708	1.3	750	1.39	789	1.48	826	1.56
3000	514	0.93	572	1.05	626	1.16	674	1.26	717	1.35	758	1.45	797	1.54	833	1.62

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge													
	0.9		1		1.1		1.2		1.3		1.4		1.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	796	1.13	830	1.19	862	1.25	893	1.32	922	1.39	950	1.46	978	1.54
2000	802	1.17	836	1.23	868	1.3	898	1.37	928	1.44	956	1.52	983	1.6
2100	808	1.22	842	1.28	874	1.35	904	1.42	933	1.5	961	1.58	988	1.66
2200	814	1.26	848	1.33	879	1.4	909	1.48	938	1.56	966	1.64	993	1.73
2300	820	1.31	854	1.38	885	1.46	915	1.53	943	1.62	971	1.7	998	1.79
2400	827	1.36	860	1.43	891	1.51	920	1.59	949	1.68	976	1.77	1003	1.86
2500	833	1.41	866	1.49	897	1.57	926	1.66	954	1.75	981	1.84	1008	1.93
2600	840	1.47	872	1.55	902	1.63	932	1.72	960	1.81	987	1.91	1013	2.01
2700	846	1.53	878	1.61	908	1.7	937	1.79	965	1.88	992	1.98	1018	2.08
2800	853	1.58	884	1.67	914	1.76	943	1.86	970	1.96	997	2.06	1023	2.16
2900	859	1.65	890	1.74	920	1.83	948	1.93	975	2.03	1002	2.14	1028	2.24
3000	866	1.71	896	1.8	926	1.9	954	2	981	2.11	1007	2.22	1032	2.33



## BLOWER DATA

### TAA090 BLOWER PERFORMANCE

All data is measured external to the unit with dry coil and standard 2 in. air filters in place.

FOR ALL UNITS ADD:

1 - Wet indoor coil air resistance of selected unit.

2 - Any field installed accessories air resistance (electric heat, economizer, etc.) See page 15.

Then determine from table the blower motor hp and drive rpm required. See page 14 for blower drive specifications.

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge															
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	508	0.79	565	0.89	619	0.98	667	1.06	710	1.14	750	1.23	787	1.3	822	1.38
2500	519	0.83	577	0.94	630	1.02	677	1.1	720	1.19	759	1.28	796	1.36	830	1.43
2600	531	0.87	588	0.98	641	1.07	688	1.16	729	1.25	769	1.34	805	1.42	839	1.49
2700	543	0.92	600	1.03	653	1.12	698	1.21	739	1.31	778	1.4	814	1.48	848	1.55
2800	555	0.97	613	1.08	664	1.17	709	1.27	749	1.37	788	1.46	824	1.54	857	1.62
2900	568	1.02	625	1.13	676	1.22	719	1.32	759	1.43	797	1.52	833	1.6	866	1.68
3000	581	1.07	638	1.18	687	1.28	730	1.39	769	1.49	807	1.58	842	1.67	875	1.75
3100	595	1.12	651	1.24	699	1.34	740	1.45	779	1.56	817	1.65	852	1.73	883	1.82
3200	609	1.18	664	1.3	710	1.41	751	1.52	789	1.63	827	1.72	861	1.8	892	1.89
3300	624	1.24	677	1.36	722	1.48	761	1.59	799	1.7	836	1.79	870	1.88	901	1.97
3400	639	1.3	690	1.43	733	1.55	772	1.67	810	1.77	846	1.86	879	1.95	909	2.05
3500	653	1.37	703	1.5	745	1.62	782	1.75	820	1.85	856	1.94	888	2.03	917	2.14
3600	668	1.44	715	1.57	756	1.7	793	1.83	830	1.93	865	2.02	897	2.12	925	2.24

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge													
	0.9		1		1.1		1.2		1.3		1.4		1.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	855	1.44	888	1.51	920	1.59	950	1.67	979	1.77	1006	1.86	1033	1.96
2500	863	1.5	896	1.57	928	1.65	958	1.74	986	1.84	1013	1.94	1039	2.04
2600	872	1.56	904	1.64	936	1.72	965	1.82	993	1.92	1019	2.02	1045	2.12
2700	880	1.62	913	1.7	943	1.79	972	1.89	1000	2	1026	2.1	1052	2.2
2800	889	1.69	921	1.77	951	1.87	979	1.97	1006	2.08	1033	2.18	1058	2.29
2900	898	1.76	929	1.85	959	1.95	987	2.05	1013	2.16	1039	2.26	1064	2.37
3000	906	1.83	937	1.93	966	2.03	994	2.13	1020	2.24	1046	2.35	1070	2.46
3100	914	1.91	944	2.01	973	2.11	1001	2.22	1027	2.33	1052	2.44	1077	2.55
3200	922	1.99	952	2.09	980	2.2	1008	2.3	1033	2.41	1058	2.53	1083	2.64
3300	930	2.07	959	2.18	987	2.29	1014	2.39	1040	2.5	1065	2.62	1089	2.73
3400	938	2.16	966	2.27	994	2.38	1021	2.49	1046	2.6	1071	2.71	1095	2.83
3500	945	2.26	973	2.37	1001	2.48	1028	2.58	1053	2.69	1077	2.81	1101	2.93
3600	953	2.35	980	2.47	1008	2.58	1034	2.68	1059	2.79	1084	2.91	1107	3.03

## BLOWER DATA

### TAA120 BLOWER PERFORMANCE

All data is measured external to the unit with dry coil and standard 2 in. air filters in place.

FOR ALL UNITS ADD:

1 - Wet indoor coil air resistance of selected unit.

2 - Any field installed accessories air resistance (electric heat, economizer, etc.) See page 15.

Then determine from table the blower motor hp and drive rpm required. See page 14 for blower drive specifications.

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge															
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	484	0.51	516	0.6	552	0.7	591	0.82	635	0.95	677	1.07	699	1.1	736	1.18
3200	499	0.62	531	0.7	566	0.8	606	0.92	651	1.06	684	1.15	707	1.18	746	1.28
3400	514	0.73	546	0.81	582	0.91	622	1.03	667	1.17	690	1.22	717	1.29	758	1.4
3600	529	0.84	562	0.93	598	1.03	639	1.15	679	1.28	697	1.31	730	1.4	772	1.52
3800	545	0.96	579	1.05	616	1.15	658	1.28	686	1.37	706	1.41	745	1.53	786	1.65
4000	562	1.09	596	1.18	634	1.29	674	1.41	693	1.46	720	1.54	761	1.67	802	1.79
4200	580	1.23	615	1.31	654	1.42	684	1.52	702	1.57	737	1.69	778	1.82	819	1.94
4400	600	1.37	635	1.45	672	1.56	691	1.62	717	1.72	756	1.86	796	1.98	836	2.09
4600	619	1.51	655	1.59	683	1.68	702	1.76	736	1.89	775	2.02	814	2.13	853	2.24
4800	639	1.65	673	1.73	692	1.81	719	1.93	757	2.08	795	2.19	832	2.3	871	2.4
5000	659	1.78	685	1.87	706	1.97	740	2.12	778	2.26	814	2.37	851	2.46	889	2.56

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge													
	0.9		1		1.1		1.2		1.3		1.4		1.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	779	1.29	826	1.42	873	1.56	919	1.7	964	1.84	1009	1.98	1054	2.11
3200	790	1.4	836	1.53	882	1.66	929	1.8	974	1.94	1019	2.07	1063	2.21
3400	802	1.51	847	1.64	893	1.77	938	1.91	983	2.04	1028	2.17	1072	2.31
3600	815	1.64	859	1.76	904	1.89	949	2.03	993	2.16	1037	2.29	1080	2.42
3800	829	1.77	873	1.9	917	2.03	961	2.16	1005	2.29	1048	2.42	1090	2.55
4000	845	1.91	888	2.04	932	2.17	975	2.31	1018	2.43	1060	2.56	1102	2.69
4200	861	2.06	904	2.19	948	2.32	990	2.46	1033	2.59	1074	2.71	1116	2.84
4400	878	2.21	921	2.34	963	2.47	1006	2.6	1048	2.73	1089	2.86	1130	2.98
4600	894	2.36	936	2.49	979	2.61	1021	2.74	1063	2.87	1104	3	1145	3.12
4800	911	2.51	953	2.63	995	2.76	1036	2.88	1078	3.01	1119	3.13	1161	3.26
5000	928	2.67	969	2.78	1011	2.9	1052	3.03	1094	3.15	1135	3.27	1176	3.4

## BLOWER DATA

### TAA150 BLOWER PERFORMANCE

All data is measured external to the unit with dry coil and standard 2 in. air filters in place.

FOR ALL UNITS ADD:

1 - Wet indoor coil air resistance of selected unit.

2 - Any field installed accessories air resistance (electric heat, economizer, etc.) See page 15.

Then determine from table the blower motor hp and drive rpm required. See page 14 for blower drive specifications.

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge															
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	627	1.26	669	1.39	690	1.45	714	1.52	754	1.65	795	1.76	835	1.87	877	1.98
4200	653	1.42	684	1.52	701	1.57	736	1.69	777	1.82	816	1.92	856	2.02	897	2.13
4400	676	1.57	694	1.63	721	1.73	761	1.87	800	1.99	838	2.08	877	2.18	917	2.28
4600	688	1.7	710	1.79	747	1.93	787	2.06	823	2.16	860	2.24	898	2.33	938	2.43
4800	702	1.85	735	1.99	774	2.14	812	2.25	846	2.32	882	2.4	920	2.49	959	2.58
5000	725	2.06	763	2.21	801	2.34	837	2.44	869	2.49	903	2.55	941	2.64	979	2.73
5200	754	2.3	791	2.43	828	2.55	862	2.63	891	2.66	925	2.71	962	2.79	1000	2.88
5400	783	2.53	819	2.65	855	2.75	887	2.82	913	2.82	946	2.86	983	2.95	1021	3.03
5600	810	2.74	845	2.85	881	2.95	912	3.01	935	2.98	967	3.01	1004	3.1	1041	3.19
5800	835	2.95	871	3.05	906	3.15	936	3.19	957	3.14	987	3.16	1024	3.25	1062	3.34
6000	860	3.14	896	3.25	931	3.35	960	3.37	978	3.3	1008	3.31	1045	3.4	1083	3.48

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge													
	0.9		1		1.1		1.2		1.3		1.4		1.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	920	2.1	963	2.22	1006	2.34	1048	2.46	1091	2.58	1133	2.69	1174	2.81
4200	939	2.24	982	2.36	1024	2.48	1067	2.59	1109	2.71	1151	2.83	1193	2.95
4400	959	2.39	1001	2.5	1043	2.61	1085	2.73	1127	2.85	1169	2.96	1211	3.08
4600	979	2.53	1020	2.64	1062	2.76	1104	2.87	1146	2.99	1188	3.1	1230	3.22
4800	999	2.68	1040	2.79	1082	2.9	1123	3.01	1165	3.12	1207	3.24	1248	3.35
5000	1019	2.83	1060	2.93	1101	3.04	1142	3.15	1184	3.26	1226	3.38	1267	3.49
5200	1040	2.98	1080	3.08	1121	3.19	1162	3.29	1203	3.41	1245	3.52	1286	3.63
5400	1060	3.13	1100	3.23	1140	3.33	1181	3.44	1222	3.55	1264	3.66	1305	3.77
5600	1080	3.28	1120	3.37	1160	3.48	1201	3.58	1242	3.69	1283	3.8	1324	3.91
5800	1101	3.43	1140	3.52	1180	3.62	1220	3.72	1261	3.83	1302	3.94	1343	4.05
6000	1121	3.57	1160	3.67	1200	3.77	1240	3.87	1280	3.97	1321	4.08	1362	4.19

## BLOWER DATA

### TAA180 BLOWER PERFORMANCE

All data is measured external to the unit with dry coil and standard 2 in. air filters in place.

FOR ALL UNITS ADD:

1 - Wet indoor coil air resistance of selected unit.

2 - Any field installed accessories air resistance (electric heat, economizer, etc.) See page 16.

Then determine from table the blower motor hp and drive rpm required. See page 14 for blower drive specifications.

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge															
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4800	440	0.78	486	1.16	534	1.46	582	1.7	628	1.9	670	2.07	709	2.18	744	2.24
5000	446	0.88	492	1.25	540	1.54	588	1.77	634	1.97	676	2.14	714	2.26	748	2.34
5200	452	0.98	499	1.34	547	1.62	595	1.84	640	2.04	682	2.22	719	2.34	753	2.43
5400	458	1.08	505	1.43	554	1.7	602	1.92	647	2.12	688	2.3	724	2.44	757	2.54
5600	465	1.18	512	1.52	561	1.77	609	1.99	653	2.2	694	2.39	729	2.53	762	2.65
5800	471	1.28	519	1.61	568	1.85	616	2.07	660	2.28	700	2.48	734	2.64	766	2.77
6000	478	1.38	526	1.7	575	1.93	623	2.15	667	2.37	706	2.58	740	2.76	771	2.91
6200	485	1.48	534	1.79	583	2.01	630	2.23	674	2.46	712	2.69	745	2.88	776	3.05
6400	493	1.59	542	1.88	591	2.1	638	2.32	681	2.56	718	2.81	750	3.01	780	3.2
6600	500	1.69	550	1.96	599	2.18	646	2.41	688	2.67	724	2.93	755	3.16	785	3.36
6800	508	1.79	558	2.05	607	2.27	654	2.51	695	2.78	730	3.07	761	3.32	789	3.54
7000	516	1.89	567	2.15	616	2.36	662	2.61	702	2.91	736	3.22	766	3.49	794	3.73
7200	525	1.99	575	2.24	625	2.46	670	2.73	709	3.05	742	3.38	771	3.68	798	3.94

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge													
	0.9		1		1.1		1.2		1.3		1.4		1.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4800	778	2.33	811	2.47	844	2.69	876	2.94	907	3.18	936	3.38	966	3.58
5000	782	2.43	814	2.59	847	2.81	879	3.07	909	3.32	939	3.53	968	3.75
5200	786	2.54	818	2.71	850	2.95	881	3.22	912	3.48	941	3.7	970	3.93
5400	790	2.66	821	2.85	853	3.09	884	3.37	914	3.64	943	3.88	972	4.12
5600	794	2.79	825	2.99	856	3.24	887	3.54	917	3.82	946	4.07	975	4.33
5800	798	2.93	828	3.14	859	3.41	890	3.71	919	4.01	948	4.28	977	4.56
6000	801	3.07	832	3.3	862	3.58	892	3.9	922	4.22	951	4.51	980	4.81
6200	805	3.23	835	3.47	865	3.77	895	4.11	924	4.44	953	4.75	983	5.07
6400	809	3.4	839	3.65	868	3.97	898	4.32	927	4.68	956	5.01	986	5.35
6600	813	3.58	842	3.85	872	4.18	901	4.56	930	4.93	959	5.28	989	5.65
6800	817	3.77	846	4.06	875	4.41	904	4.8	933	5.2	962	5.58	993	5.97
7000	821	3.98	849	4.29	878	4.66	907	5.07	936	5.49	965	5.89	996	6.31
7200	825	4.21	853	4.53	881	4.92	910	5.35	939	5.79	969	6.22	1000	6.67

## BLOWER DATA

### TAA240 BLOWER PERFORMANCE

All data is measured external to the unit with dry coil and standard 2 in. air filters in place.

FOR ALL UNITS ADD:

1 - Wet indoor coil air resistance of selected unit.

2 - Any field installed accessories air resistance (electric heat, economizer, etc.) See page 16.

Then determine from table the blower motor hp and drive rpm required. See page 14 for blower drive specifications.

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge															
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6400	535	1.84	583	2.06	630	2.28	674	2.51	713	2.77	746	3.03	776	3.25	805	3.44
6600	545	1.94	593	2.16	640	2.38	683	2.63	720	2.91	753	3.19	782	3.43	810	3.64
6800	555	2.05	604	2.27	650	2.5	692	2.76	728	3.06	759	3.36	787	3.62	815	3.85
7000	566	2.16	614	2.38	660	2.62	701	2.9	736	3.23	766	3.55	793	3.83	820	4.08
7200	577	2.27	625	2.49	671	2.75	710	3.05	743	3.4	772	3.75	799	4.05	825	4.32
7400	588	2.38	637	2.61	681	2.88	719	3.21	751	3.59	778	3.96	804	4.29	829	4.58
7600	600	2.49	648	2.74	691	3.03	727	3.39	758	3.79	784	4.18	809	4.54	834	4.85
7800	613	2.61	660	2.88	701	3.19	735	3.57	764	4	790	4.42	814	4.8	839	5.14
8000	626	2.73	671	3.02	711	3.36	743	3.77	771	4.22	796	4.67	819	5.08	844	5.45
8200	638	2.86	682	3.18	720	3.55	751	3.98	777	4.46	801	4.93	824	5.37	849	5.77
8400	651	3	694	3.35	729	3.75	758	4.21	784	4.7	807	5.21	829	5.68	853	6.12
8600	664	3.15	704	3.53	738	3.96	765	4.44	789	4.97	812	5.5	834	6	858	6.48
8800	676	3.32	714	3.73	746	4.19	772	4.7	795	5.25	817	5.81	839	6.35	863	6.86
9000	688	3.5	724	3.94	754	4.43	778	4.97	800	5.54	822	6.13	844	6.71	868	7.27
9200	700	3.71	733	4.17	761	4.69	784	5.26	806	5.86	826	6.48	848	7.09	873	7.69
9400	711	3.93	742	4.43	768	4.97	790	5.57	811	6.19	831	6.85	853	7.5	878	8.15
9600	721	4.17	750	4.71	775	5.28	796	5.9	816	6.56	836	7.25	858	7.94	884	8.63

Air Volume cfm	STATIC PRESSURE EXTERNAL TO UNIT - Inches Water Gauge													
	0.9		1		1.1		1.2		1.3		1.4		1.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6400	833	3.66	863	3.92	892	4.24	922	4.59	952	4.93	981	5.28	1012	5.65
6600	838	3.87	867	4.15	896	4.49	926	4.86	956	5.22	986	5.6	1017	5.99
6800	842	4.09	871	4.39	900	4.75	930	5.14	960	5.54	991	5.94	1022	6.36
7000	847	4.34	875	4.65	905	5.03	934	5.45	964	5.87	996	6.3	1028	6.75
7200	851	4.6	880	4.94	909	5.34	939	5.78	969	6.22	1001	6.68	1034	7.16
7400	856	4.88	884	5.24	913	5.66	943	6.13	974	6.6	1006	7.09	1040	7.6
7600	861	5.18	888	5.56	918	6.01	948	6.5	980	7.01	1012	7.53	1047	8.07
7800	865	5.49	893	5.9	923	6.38	953	6.9	985	7.44	1019	7.99	1054	8.56
8000	870	5.83	898	6.27	928	6.77	959	7.32	991	7.89	1026	8.48	1062	9.08
8200	875	6.19	903	6.65	933	7.19	964	7.77	998	8.37	1033	9	1070	9.63
8400	879	6.56	908	7.07	938	7.63	970	8.25	1004	8.89	1040	9.54	1078	10.2
8600	884	6.96	913	7.5	944	8.1	977	8.75	1011	9.43	1048	10.12	1087	10.81
8800	890	7.39	919	7.96	950	8.6	983	9.29	1019	10	1057	10.73	1096	11.44
9000	895	7.83	924	8.45	956	9.13	991	9.85	1027	10.6	1066	11.36	1105	12.11
9200	900	8.31	931	8.97	963	9.69	998	10.45	1036	11.24	1075	12.03	1115	12.8
9400	906	8.81	937	9.51	970	10.28	1006	11.08	1045	11.91	1085	12.73	1125	13.52
9600	912	9.34	944	10.09	978	10.9	1015	11.75	1054	12.61	1095	13.46	1136	14.28

## BLOWER DATA

### BLOWER DRIVE SPECIFICATIONS

Static	RPM Range	Motor HP		072	090	120	150	180	240
		Nominal	Maximum						
Low	552 - 782	1.5	1.72	○	---	---	---	---	---
Standard	690 - 936	1.5	1.72	<b>S</b>	---	---	---	---	---
High	906 - 1121	2	2.3	○	---	---	---	---	---
Low	644 - 874	2	2.3	---	○	---	---	---	---
Standard	782 - 1012	2	2.3	---	<b>S</b>	---	---	---	---
High	966 - 1196	3	3.45	---	○	---	---	---	---
Low	690 - 893	2	2.3	---	---	○	---	---	---
Standard	852 - 1055	2	2.3	---	---	<b>S</b>	---	---	---
High	986 - 1232	3	3.45	---	---	○	---	---	---
Low	782 - 1012	3	3.45	---	---	---	○	---	---
Standard	920 - 1150	3	3.45	---	---	---	<b>S</b>	---	---
High	1134 - 1380	5	5.75	---	---	---	○	---	---
Low	591 - 838	3	3.45	---	---	---	---	○	---
Standard	782 - 1012	5	5.75	---	---	---	---	<b>S</b>	---
High	920 - 1150	5	5.75	---	---	---	---	○	---
Low	679 - 863	5	5.75	---	---	---	---	---	○
Standard	808 - 1026	7.5	8.63	---	---	---	---	---	<b>S</b>
High	1002 - 1282	7.5	8.63	---	---	---	---	---	○

NOTE - Using total air volume and system static pressure requirements, determine from blower performance tables rpm and motor horsepower required. Maximum usable horsepower of motors furnished by Lennox are shown. In Canada, nominal motor horsepower is also maximum usable motor horsepower. If motors of comparable horsepower are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

S - Factory installed standard

○ - Factory Installed with extended lead time.

### BLOWER MOTOR ELECTRICAL DATA

			Model No.	072	090	120	150	180	240
<b>1.5 HP Blower Motor</b>	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230/-60hz-3ph	15 / 8	---	---	---	---	---	---
		460V-60hz-3ph	15 / 4	---	---	---	---	---	---
		575V-60hz-3ph	15 / 3	---	---	---	---	---	---
<b>2 HP Blower Motor</b>	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230/-60hz-3ph	15 / 10	15 / 10	15 / 10	---	---	---	---
		460V-60hz-3ph	15 / 5	15 / 5	15 / 5	---	---	---	---
		575V-60hz-3ph	15 / 4	15 / 4	15 / 4	---	---	---	---
<b>3 HP Blower Motor</b>	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230/-60hz-3ph	---	20 / 14	20 / 14	20 / 14	20 / 14	20 / 14	---
		460V-60hz-3ph	---	15 / 6	15 / 6	15 / 6	15 / 6	15 / 6	---
		575V-60hz-3ph	---	15 / 5	15 / 5	15 / 5	15 / 5	15 / 5	---
<b>5 HP Blower Motor</b>	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230/-60hz-3ph	---	---	---	35 / 21	35 / 21	35 / 21	35 / 21
		460V-60hz-3ph	---	---	---	15 / 10	15 / 10	15 / 10	15 / 10
		575V-60hz-3ph	---	---	---	15 / 8	15 / 8	15 / 8	15 / 8
<b>7.5 HP Blower Motor</b>	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230/-60hz-3ph	---	---	---	---	---	---	50 / 31
		460V-60hz-3ph	---	---	---	---	---	---	20 / 14
		575V-60hz-3ph	---	---	---	---	---	---	20 / 12

**BLOWER DATA****TAA072-090 ACCESSORY AIR RESISTANCE**

Air Volume (cfm)	Total Resistance - in. w.g.						
	Wet Coil		5 Inch Filters		Economizer	Electric Heat	Hot Water Coil
	072	090	MERV 10	MERV 16			
1900	0.07	0.09	0.03	0.04	0.04	0.02	0.12
2000	0.07	0.10	0.03	0.04	0.04	0.02	0.13
2100	0.08	0.11	0.03	0.04	0.04	0.02	0.14
2200	0.08	0.11	0.03	0.05	0.05	0.02	0.15
2300	0.09	0.12	0.03	0.05	0.05	0.03	0.16
2400	0.10	0.13	0.04	0.06	0.05	0.03	0.17
2500	0.10	0.14	0.04	0.06	0.06	0.03	0.18
2600	0.11	0.15	0.04	0.06	0.06	0.03	0.19
2700	0.12	0.16	0.05	0.06	0.07	0.04	0.20
2800	0.12	0.17	0.05	0.06	0.07	0.04	0.21
2900	0.13	0.18	0.05	0.07	0.08	0.04	0.23
3000	0.14	0.19	0.05	0.07	0.08	0.05	0.24
3100	0.14	0.20	0.06	0.07	0.09	0.05	0.25
3200	0.15	0.21	0.06	0.07	0.09	0.05	0.27
3300	0.16	0.22	0.06	0.08	0.1	0.06	0.28
3400	0.17	0.23	0.06	0.08	0.1	0.06	0.29
3500	0.18	0.24	0.07	0.08	0.11	0.06	0.31
3600	0.18	0.25	0.07	0.08	0.12	0.06	0.32

**TAA120-150 ACCESSORY AIR RESISTANCE**

Air Volume (cfm)	Total Resistance - in. w.g.						
	Wet Coil		5 Inch Filters		Economizer	Electric Heat	Hot Water Coil
	120	150	MERV 10	MERV 16			
3000	0.11	0.11	0.03	0.05	0.04	0.05	0.24
3200	0.12	0.12	0.04	0.05	0.04	0.05	0.27
3400	0.14	0.14	0.04	0.06	0.05	0.06	0.29
3600	0.15	0.15	0.05	0.06	0.05	0.06	0.32
3800	0.16	0.16	0.05	0.07	0.05	0.06	0.35
4000	0.18	0.18	0.06	0.07	0.06	0.08	0.38
4200	0.19	0.19	0.06	0.07	0.06	0.08	0.41
4400	0.20	0.20	0.06	0.08	0.07	0.09	0.44
4600	0.22	0.22	0.07	0.08	0.07	0.09	0.47
4800	0.23	0.23	0.07	0.08	0.08	0.10	0.51
5000	0.25	0.25	0.07	0.08	0.08	0.10	0.54
5200	0.27	0.27	0.08	0.09	0.09	0.11	0.58
5400	0.28	0.28	0.08	0.09	0.09	0.11	0.61
5600	0.30	0.30	0.08	0.09	0.1	0.13	0.65
5800	0.32	0.32	0.09	0.1	0.1	0.13	0.69
6000	0.33	0.33	0.09	0.1	0.11	0.14	0.72

**BLOWER DATA****TAA180-240 ACCESSORY AIR RESISTANCE**

Air Volume (cfm)	Total Resistance - in. w.g.						
	Wet Coil		5 Inch Filters		Economizer	Electric Heat	Hot Water Coil
	180	240	MERV 10	MERV 16			
4500	0.08	0.11	0.03	0.05	0.05	0.06	0.24
4750	0.09	0.12	0.04	0.05	0.06	0.08	0.26
5000	0.10	0.13	0.04	0.06	0.07	0.09	0.28
5250	0.11	0.14	0.04	0.06	0.07	0.09	0.31
5500	0.11	0.15	0.05	0.06	0.08	0.11	0.33
5750	0.12	0.16	0.05	0.06	0.08	0.11	0.35
6000	0.13	0.18	0.05	0.07	0.10	0.12	0.38
6250	0.14	0.19	0.06	0.07	0.11	0.14	0.40
6500	0.15	0.20	0.06	0.07	0.11	0.14	0.43
6750	0.16	0.21	0.06	0.08	0.12	0.15	0.46
7000	0.17	0.22	0.07	0.08	0.12	0.15	0.48
7250	0.18	0.24	0.07	0.08	0.13	0.17	0.51
7500	0.19	0.25	0.07	0.08	0.13	0.17	0.54
7750	0.19	0.26	0.08	0.09	0.14	0.18	0.57
8000	0.21	0.28	0.08	0.09	0.16	0.20	0.60
8250	0.22	0.29	0.08	0.09	0.16	0.20	0.63
8500	0.23	0.31	0.09	0.1	0.17	0.21	0.66
8750	0.24	0.32	0.09	0.1	0.17	0.21	0.69
9000	0.25	0.33	0.09	0.1	0.18	0.23	0.72
9250	0.26	0.35	0.10	0.11	0.19	0.24	0.76
9500	0.27	0.36	0.10	0.11	0.20	0.26	0.79
9750	0.28	0.38	0.10	0.11	0.22	0.27	0.82
10,000	0.29	0.40	0.11	0.12	0.23	0.29	0.86



## TAA072 OPTIONAL ELECTRIC HEAT DATA

Electric Heat Size	No. of Steps	Volts Input	kW Input	1 Btuh Output	2 Total Unit + Electric Heat Minimum Circuit Ampacity		Total Unit + Electric Heat Maximum Overcurrent Protection	
					1.5 hp	2 hp	1.5 hp	2 hp
10 kW	1	208	7.5	25,600	34	36	35	40
	1	220	8.4	28,700	38	40	40	40
		230	9.2	31,400				
		240	10	34,100				
1	440	8.4	28,700	19	20	20	20	
	460	9.2	31,400					
	480	10	34,100					
1	550	8.4	28,700	15	16	15	20	
	575	9.2	31,400					
	600	10	34,100					
15 kW	1	208	11.3	38,400	47	49	50	50
	1	220	12.6	43,000	53	55	60	60
		230	13.5	47,000				
		240	15	51,200				
1	440	12.6	43,000	27	27	30	30	
	460	13.5	47,000					
	480	15	51,200					
1	550	12.6	43,000	21	22	25	25	
	575	13.5	47,000					
	600	15	51,200					
25 kW	<sup>3</sup> 2	208	18.8	64,100	73	75	80	80
	<sup>3</sup> 2	220	21	71,700	83	85	90	90
		230	23	78,300				
		240	25	85,300				
1	440	21	71,700	42	42	45	45	
	460	23	78,300					
	480	25	85,300					
1	550	21	71,700	34	34	35	35	
	575	23	78,300					
	600	25	85,300					

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> May be used with two stage control (field provided).

## TAA090 OPTIONAL ELECTRIC HEAT DATA

Electric Heat Size	No. of Steps	Volts Input	kW Input	1 Btuh Output	<sup>2</sup> Total Unit + Electric Heat Minimum Circuit Ampacity		Total Unit + Electric Heat Maximum Overcurrent Protection	
					2 hp	3 hp	2 hp	3 hp
<b>10 kW</b>	1	208	7.5	25,600	36	40	40	40
	1	220	8.4	28,700	40	44	40	45
		230	9.2	31,400				
		240	10	34,100				
1	440	8.4	28,700	20	21	20	25	
	460	9.2	31,400					
	480	10	34,100					
1	550	8.4	28,700	16	17	20	20	
	575	9.2	31,400					
	600	10	34,100					
<b>15 kW</b>	1	208	11.3	38400	49	53	50	60
	1	220	12.6	43,000	55	59	60	60
		230	13.5	47,000				
		240	15	51,200				
1	440	12.6	43,000	27	29	30	30	
	460	13.5	47,000					
	480	15	51,200					
1	550	12.6	43,000	22	23	25	25	
	575	13.5	47,000					
	600	15	51,200					
<b>25 kW</b>	<sup>3</sup> 2	208	18.8	64,100	75	79	80	80
	<sup>3</sup> 2	220	21	71,700	85	89	90	90
		230	23	78,300				
		240	25	85,300				
1	440	21	71,700	42	44	45	45	
	460	23	78,300					
	480	25	85,300					
1	550	21	71,700	34	35	35	35	
	575	23	78,300					
	600	25	85,300					
<b>35 kW</b>	<sup>3</sup> 2	208	25	85,300	97	100	100	100
	<sup>3</sup> 2	220	28	95,500	110	114	110	125
		230	30.6	104,400				
		240	33.3	113,700				
1	440	28	95,500	55	57	60	60	
	460	30.6	104,400					
	480	33.3	113,700					
1	550	28	95,500	44	45	45	45	
	575	30.6	104,400					
	600	33.3	113,700					

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> May be used with two stage control (field provided).

## TAA120 OPTIONAL ELECTRIC HEAT DATA

Electric Heat Size	No. of Steps	Volts Input	kW Input	1 Btuh Output	2 Total Unit + Electric Heat Minimum Circuit Ampacity		Total Unit + Electric Heat Maximum Overcurrent Protection	
					2 hp	3 hp	2 hp	3 hp
10 kW	1	208	7.5	25,600	36	40	40	40
	1	220	8.4	28,700	40	44	40	45
		230	9.2	31,400				
		240	10	34,100				
1	440	8.4	28,700	20	21	20	25	
	460	9.2	31,400					
	480	10	34,100					
1	550	8.4	28,700	16	17	20	20	
	575	9.2	31,400					
	600	10	34,100					
15 kW	1	208	11.3	38,400	49	53	50	60
	1	220	12.6	43,000	55	59	60	60
		230	13.5	47,000				
		240	15	51,200				
1	440	12.6	43,000	27	29	30	30	
	460	13.5	47,000					
	480	15	51,200					
1	550	12.6	43,000	22	23	25	25	
	575	13.5	47,000					
	600	15	51,200					
25 kW	<sup>3</sup> 2	208	18.8	64,100	75	79	80	80
	<sup>3</sup> 2	220	21	71,700	85	89	90	90
		230	23	78,300				
		240	25	85,300				
1	440	21	71,700	42	44	45	45	
	460	23	78,300					
	480	25	85,300					
1	550	21	71,700	34	35	35	35	
	575	23	78,300					
	600	25	85,300					
35 kW	<sup>3</sup> 2	208	25	85,300	97	100	100	100
	<sup>3</sup> 2	220	28	95,500	110	114	110	125
		230	30.6	104,400				
		240	33.3	113,700				
1	440	28	95,500	55	57	60	60	
	460	30.6	104,400					
	480	33.3	113,700					
1	550	28	95,500	44	45	45	45	
	575	30.6	104,400					
	600	33.3	113,700					

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> May be used with two stage control (field provided).

## TAA150 OPTIONAL ELECTRIC HEAT DATA

Electric Heat Size	No. of Steps	Volts Input	kW Input	1 Btuh Output	<sup>2</sup> Total Unit + Electric Heat Minimum Circuit Ampacity		Total Unit + Electric Heat Maximum Overcurrent Protection	
					3 hp	5 hp	3 hp	5 hp
<b>10 kW</b>	1	208	7.5	25,600	40	47	40	50
	1	220	8.4	28,700	44	51	45	60
		230	9.2	31,400				
		240	10	34,100				
1	440	8.4	28,700	21	25	25	25	
	460	9.2	31,400					
	480	10	34,100					
1	550	8.4	28,700	17	20	20	20	
	575	9.2	31,400					
	600	10	34,100					
<b>15 kW</b>	1	208	11.3	38400	53	60	60	60
	1	220	12.6	43,000	59	66	60	70
		230	13.5	47,000				
		240	15	51,200				
1	440	12.6	43,000	29	32	30	35	
	460	13.5	47,000					
	480	15	51,200					
1	550	12.6	43,000	23	26	25	30	
	575	13.5	47,000					
	600	15	51,200					
<b>25 kW</b>	<sup>3</sup> 2	208	18.8	64,100	79	86	80	90
	<sup>3</sup> 2	220	21	71,700	89	96	90	100
		230	23	78,300				
		240	25	85,300				
1	440	21	71,700	44	48	45	50	
	460	23	78,300					
	480	25	85,300					
1	550	21	71,700	35	38	35	40	
	575	23	78,300					
	600	25	85,300					
<b>35 kW</b>	<sup>3</sup> 2	208	25	85,300	100	108	100	110
	<sup>3</sup> 2	220	28	95,500	114	121	125	125
		230	30.6	104,400				
		240	33.3	113,700				
1	440	28	95,500	57	60	60	60	
	460	30.6	104,400					
	480	33.3	113,700					
1	550	28	95,500	45	48	45	50	
	575	30.6	104,400					
	600	33.3	113,700					

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> May be used with two stage control (field provided).

## TAA180 OPTIONAL ELECTRIC HEAT DATA

Electric Heat Size	No. of Steps	Volts Input	kW Input	1 Btuh Output	2 Total Unit + Electric Heat Minimum Circuit Ampacity		Total Unit + Electric Heat Maximum Overcurrent Protection	
					3 hp	5 hp	3 hp	5 hp
20 kW	1	208	14.8	50,600	65	73	70	80
	1	220	16.5	56,500	73	81	80	90
		230	18.1	61,800				
		240	19.7	67,300				
1	440	16.8	57,500	37	40	40	40	
	460	18.4	62,900					
	480	20	68,300					
1	550	16.8	57,300	29	32	30	35	
	575	18.4	62,600					
	600	20	68,300					
30 kW	2	208	22.5	76,900	92	99	100	100
	2	220	25.2	86,100	104	112	110	125
		230	27.5	94,100				
		240	30	102,500				
1	440	25.2	86,100	52	55	60	60	
	460	27.5	94,100					
	480	30	102,500					
1	550	25.2	86,200	41	44	45	45	
	575	27.5	94,200					
	600	30	102,500					
40 kW	2	208	29.3	100,000	115	123	125	125
	2	220	32.8	112,000	131	139	150	150
		230	35.8	122,300				
		240	39	133,200				
1	440	32.8	112,000	65	69	70	70	
	460	35.9	122,400					
	480	39	133,200					
1	550	33.6	114,800	53	56	60	60	
	575	36.7	125,500					
	600	40	136,600					
50 kW	2	208	36.1	123,200	114	121	125	125
	2	220	40.3	137,700	129	137	150	150
		230	44.1	150,600				
		240	48	163,900				
2	440	42	143,400	74	81	80	90	
	460	45.9	156,700					
	480	50	170,800					
2	550	42	143,500	62	69	70	70	
	575	45.9	156,800					
	600	50	170,800					

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> May be used with two stage control (field provided).

## TAA240 OPTIONAL ELECTRIC HEAT DATA

Electric Heat Size	No. of Steps	Volts Input	kW Input	1 Btuh Output	<sup>2</sup> Total Unit + Electric Heat Minimum Circuit Ampacity		Total Unit + Electric Heat Maximum Overcurrent Protection	
					5 hp	7.5 hp	5 hp	7.5 hp
20 kW	1	208	14.8	50,600	73	82	80	90
	1	220	16.5	56,500	81	90	90	90
		230	18.1	61,800				
		240	19.7	67,300				
1	440	16.8	57,500	40	44	40	45	
	460	18.4	62,900					
	480	20	68,300					
1	550	16.7	57,300	32	36	35	40	
	575	18.4	62,600					
	600	20	68,300					
30 kW	2	208	22.5	76,900	99	109	100	110
	2	220	25.2	86,100	112	121	125	125
		230	27.6	94,100				
		240	30	102,500				
1	440	25.2	86,100	55	59	60	60	
	460	27.6	94,100					
	480	30	102,500					
1	550	25.2	86,100	44	48	45	50	
	575	27.6	94,200					
	600	30	102,500					
40 kW	2	208	29.3	100,000	123	132	125	150
	2	220	32.8	112,000	139	148	150	150
		230	35.8	122,300				
		240	39	133,200				
1	440	32.8	112,000	69	73	70	80	
	460	35.9	122,400					
	480	39	133,200					
1	550	33.6	114,800	56	60	60	60	
	575	36.7	125,500					
	600	40	136,600					
50 kW	2	208	36.1	123,200	121	131	125	150
	2	220	40.3	137,700	137	146	150	150
		230	44.1	150,600				
		240	48	163,900				
2	440	42	143,400	81	91	90	100	
	460	45.9	156,700					
	480	50	170,800					
2	550	42	143,500	69	79	70	80	
	575	45.9	156,800					
	600	50	170,800					

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> May be used with two stage control (field provided).

## SPECIFICATIONS - HOT WATER COIL

General Data	Hot Water Coil Model No.	T2HWCL10LM1-	T2HWCL10N-1-
	Air Handler Model No.	TAA072 TAA090 TAA120 TAA150	TAA180 TAA240
Water Line Connections	Inlet o.d. - in. (sweat)	1-3/8	1-3/8
	Outlet o.d. - in. (sweat)	1-3/8	1-3/8
Hot Water Coil	Net face area - sq. ft.	6.00	9.00
	Tube diameter - in.	3/8	3/8
	Fins per inch	14	14

## HOT WATER COIL - WATER PRESSURE DROP

Model No.	Flow Rate (gpm)																	
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
	Water Pressure Drop (ft. of water)																	
TAA072 TAA090 TAA120 TAA150	0.02	0.10	0.20	0.33	0.49	0.67	0.87	1.10	1.35	1.62	1.91	2.23	2.57	2.92	3.30	3.70	4.11	4.55
TAA180 TAA240	0.03	0.15	0.30	0.50	0.73	1.00	1.30	1.65	2.02	2.43	2.87	3.34	3.85	4.38	4.95	5.55	6.17	6.83

Model No.	Flow Rate (gpm)																
	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70
	Water Pressure Drop (ft. of water)																
TAA072 TAA090 TAA120 TAA150	5.01	5.48	5.98	6.49	7.02	7.57	8.14	8.73	9.33	9.96	10.60	11.26	11.93	12.63	13.34	14.07	14.82
TAA180 TAA240	7.51	8.22	8.97	9.74	10.53	11.36	12.21	13.09	14.00	14.94	15.90	16.89	17.90	18.94	20.01	21.10	22.22

## HOT WATER COIL CAPACITIES

Model No.	Air Flow (cfm)	Entering Air Temp (°F)	Entering Water Temperature (°F)																										
			180									200									210								
			Water Temperature Drop (°F)																										
			20			30			40			20			30			40			20			30			40		
			GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
072	1920	40	19.1	186.9	129	12.1	177.2	125	8.5	167.1	120	22.4	217.0	144	14.3	207.6	139	10.2	197.9	135	24.0	231.9	151	15.4	222.6	146	11.0	213.1	142
		60	16.1	156.9	136	10.0	147.2	131	7.0	137.0	126	19.3	186.8	150	12.2	177.5	145	8.6	167.7	141	20.9	201.7	157	13.3	192.5	153	9.4	183.0	148
		80	13.0	127.2	142	8.0	117.4	137	5.5	107.0	132	16.2	156.9	156	10.1	147.6	152	7.1	137.7	147	17.8	171.8	163	11.2	162.6	159	7.9	152.9	154
	2400	40	22.4	218.8	124	14.1	207.0	119	10.2	194.4	115	26.2	254.2	137	16.9	241.6	133	12.7	241.6	134	28.2	270.3	144	18.6	259.9	140	13.0	247.6	135
		60	18.8	183.6	131	11.7	171.7	126	8.1	158.8	121	22.6	218.8	144	14.2	207.3	140	10.2	194.7	137	24.5	236.3	151	15.6	224.8	147	11.5	214.5	146
		80	15.2	148.7	138	9.3	136.7	133	6.3	124.1	128	19.0	183.7	151	11.8	172.2	147	8.2	160.3	142	20.9	201.2	158	13.1	189.8	154	9.2	178.5	149
	2880	40	25.4	247.9	119	15.9	233.8	114	11.2	219.4	110	29.7	288.0	132	18.9	274.5	127	13.4	260.6	123	31.9	308.1	138	20.3	294.8	134	14.5	281.0	129
		60	21.3	207.9	127	13.2	193.9	122	9.2	179.5	118	25.6	247.9	140	16.1	234.4	135	11.3	220.5	131	27.8	267.8	146	17.6	254.5	142	12.4	240.9	137
		80	17.2	168.2	134	10.5	154.2	130	7.1	139.5	125	21.5	208.0	147	13.4	194.5	143	9.3	180.6	138	23.6	227.9	154	14.8	214.6	149	10.4	200.9	145
090	2400	40	22.4	218.8	124	14.1	207.0	119	10.2	194.4	115	26.2	254.2	137	16.9	241.6	133	12.7	241.6	134	28.2	270.3	144	18.6	259.9	140	13.0	247.6	135
		60	18.8	183.6	131	11.7	171.7	126	8.1	158.8	121	22.6	218.8	144	14.2	207.3	140	10.2	194.7	137	24.5	236.3	151	15.6	224.8	147	11.5	214.5	146
		80	15.2	148.7	138	9.3	136.7	133	6.3	124.1	128	19.0	183.7	151	11.8	172.2	147	8.2	160.3	142	20.9	201.2	158	13.1	189.8	154	9.2	178.5	149
	3000	40	26.1	254.9	118	16.4	240.2	113	11.5	225.4	109	30.6	296.0	131	19.4	282.1	126	13.8	267.6	122	32.8	316.7	137	20.9	302.7	133	14.9	288.6	128
		60	21.9	213.6	126	13.6	199.3	121	9.4	184.2	117	26.3	254.8	139	16.5	240.8	134	11.6	226.5	130	28.5	275.3	145	18.0	261.5	141	12.8	247.4	136
		80	17.7	172.9	134	10.8	158.3	129	7.3	143.2	124	22.1	213.8	146	13.7	199.9	142	9.5	185.4	138	24.3	234.3	153	15.2	220.5	149	10.7	206.3	144
	3600	40	29.4	287.2	113	18.4	270.2	109	12.9	253.2	104	34.5	334.0	125	21.8	317.5	121	15.5	301.0	117	37.1	357.3	131	23.5	341.1	127	16.8	324.8	123
		60	24.7	240.8	122	15.3	223.9	118	10.5	206.6	113	29.7	287.4	134	18.6	271.0	130	13.1	254.5	125	32.2	310.6	140	20.3	294.5	136	14.4	278.2	131
		80	19.9	194.6	130	12.1	177.8	126	8.2	160.2	121	24.9	241.0	142	15.4	224.8	138	10.7	208.1	134	27.4	264.2	148	17.1	248.1	144	12.0	231.8	140
120	3200	40	27.2	266.0	116	17.1	250.5	112	12.0	235.0	107	31.9	309.1	129	20.2	294.2	124	14.3	279.1	120	34.3	330.6	135	21.8	316.0	131	15.5	301.0	126
		60	22.8	223.0	124	14.2	207.7	120	9.8	191.9	115	27.5	266.1	137	17.3	251.2	133	12.1	236.1	128	29.8	287.6	143	18.8	272.8	139	13.3	258.1	135
		80	18.5	180.3	133	11.2	165.0	128	7.6	149.0	123	23.0	223.2	145	14.3	208.5	141	9.9	193.2	136	25.4	244.6	151	15.9	230.0	147	11.1	215.1	143
	4000	40	31.5	307.2	110	19.7	288.8	106	13.8	270.1	102	36.9	357.4	122	23.3	339.7	118	16.5	321.5	114	39.7	382.6	128	25.2	364.8	124	17.9	346.9	120
		60	26.4	257.6	120	16.3	239.3	115	11.2	220.4	111	31.7	307.5	131	19.9	289.7	127	14.0	271.6	123	34.5	332.4	137	21.7	315.1	133	15.3	297.1	129
		80	21.3	208.1	129	12.9	189.8	124	8.7	170.9	120	26.6	258.0	140	16.5	240.2	136	11.4	222.0	132	29.3	282.8	146	18.3	265.2	142	12.8	247.4	138
	4800	40	35.2	344.2	106	22.0	323.1	102	15.4	301.6	98	41.4	400.8	117	26.1	380.0	113	18.5	359.3	109	44.5	428.8	122	28.2	408.4	118	20.0	387.9	114
		60	29.5	288.4	116	18.2	267.4	112	12.5	246.0	107	35.6	344.7	126	22.3	324.2	122	15.6	303.4	118	38.7	372.8	132	24.3	352.4	128	17.1	331.9	124
		80	23.9	232.9	125	14.4	211.9	121	9.7	190.2	117	29.8	288.9	136	18.5	268.6	132	12.7	247.8	128	32.9	316.9	142	20.5	296.9	138	14.3	276.2	134
150	4000	40	31.5	307.2	110	19.7	288.8	106	13.8	270.1	102	36.9	357.4	122	23.3	339.7	118	16.5	321.5	114	39.7	382.6	128	25.2	364.8	124	17.9	346.9	120
		60	26.4	257.6	120	16.3	239.3	115	11.2	220.4	111	31.7	307.5	131	19.9	289.7	127	14.0	271.6	123	34.5	332.4	137	21.7	315.1	133	15.3	297.1	129
		80	21.3	208.1	129	12.9	189.8	124	8.7	170.9	120	26.6	258.0	140	16.5	240.2	136	11.4	222.0	132	29.3	282.8	146	18.3	265.2	142	12.8	247.4	138
	5000	40	36.1	352.7	105	22.6	331.0	101	15.8	308.8	97	42.4	411.0	115	26.8	389.5	111	18.9	368.2	108	45.6	439.7	121	28.9	418.7	117	20.5	397.5	113
		60	30.3	295.7	115	18.7	274.0	111	12.8	251.7	107	36.5	353.4	125	22.8	332.2	121	16.0	311.0	118	39.6	382.2	131	24.9	361.2	127	17.6	340.1	123
		80	24.4	238.7	125	14.8	217.0	120	9.9	194.6	116	30.6	296.3	135	18.9	275.3	131	13.1	253.9	127	33.7	325.0	141	21.0	304.1	137	14.6	283.0	133
	6000	40	40.3	393.5	100	25.1	368.6	96	17.5	343.2	92	47.3	458.4	110	29.8	434.0	106	21.1	409.5	103	50.9	490.7	115	32.2	466.5	111	22.8	442.4	108
		60	33.8	329.7	111	20.8	304.7	107	14.3	279.4	103	40.7	394.2	121	25.4	370.1	117	17.8	345.5	113	44.2	426.5	126	27.8	402.5	122	19.5	378.3	118
		80	27.2	266.0	121	16.4	241.2	117	11.0	215.7	114	34.1	330.4	131	21.0	306.3	128	14.5	281.7	124	37.6	362.4	136	23.4	338.6	133	16.2	314.5	129



## HOT WATER COIL CAPACITIES

Model No.	Air Flow (cfm)	Enter- ing Air Temp (°F)	Entering Water Temperature (°F)																										
			180									200									210								
			Water Temperature Drop (°F)																										
			20			30			40			20			30			40			20			30			40		
			GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT
180	4800	40	41.6	405.9	118	26.3	385.7	114	18.6	364.9	110	48.6	470.3	130	31.0	450.7	126	22.4	428.6	123	52.1	502.7	136	33.3	483.3	132	24.0	460.6	128
		60	34.9	341.1	126	21.9	320.9	122	15.3	299.9	118	41.9	405.6	138	26.5	386.0	134	18.8	365.8	130	45.4	437.5	144	28.8	418.2	141	20.6	397.6	137
		80	28.3	276.8	134	17.5	256.5	130	12.0	235.0	126	35.2	341.0	146	22.1	321.4	142	15.5	301.0	138	38.7	373.1	152	24.4	353.8	149	17.2	333.7	145
	6000	40	48.0	469.1	112	30.3	445.0	108	21.4	419.9	104	56.2	544.1	123	35.8	520.5	120	25.5	496.6	116	60.3	581.5	129	38.5	558.2	125	27.6	534.5	122
		60	40.4	394.4	121	25.2	370.0	117	17.6	345.0	113	48.4	469.0	132	30.6	445.6	129	21.7	421.3	125	52.5	506.3	138	33.3	483.1	134	23.7	459.2	131
		80	32.7	319.8	130	20.1	295.6	126	13.8	269.8	122	40.7	394.5	141	25.5	370.8	138	17.8	346.5	134	44.8	431.6	147	28.2	408.2	143	19.8	384.4	140
	7200	40	53.8	525.9	107	33.9	497.9	103	23.9	469.3	100	63.0	610.3	118	40.0	583.0	114	28.5	555.3	111	67.6	652.0	123	43.1	625.4	120	30.9	598.1	116
		60	45.2	441.8	117	28.2	414.0	113	19.6	385.2	109	54.3	525.9	128	34.3	498.7	124	24.2	471.0	120	58.9	568.0	133	37.3	541.0	129	26.5	513.7	126
		80	36.7	358.2	126	22.5	330.2	123	15.3	300.8	119	45.6	442.1	137	28.5	415.1	134	19.9	387.0	130	50.2	484.0	143	31.5	457.1	139	22.2	429.7	136
240	6400	40	50.0	488.7	110	31.6	463.1	106	22.3	437.0	103	58.5	566.9	121	37.2	542.1	118	26.6	516.9	114	62.8	605.9	127	40.1	581.3	123	28.7	556.4	120
		60	42.0	410.6	119	26.3	385.3	116	18.3	358.8	112	50.4	488.7	131	31.9	464.0	127	22.5	438.5	123	54.7	527.5	136	34.7	503.1	133	24.7	478.0	129
		80	34.1	333.0	129	21.0	307.5	125	14.3	280.5	121	42.4	410.8	140	26.5	386.1	136	18.5	360.4	133	46.6	449.7	146	29.3	425.1	142	20.7	400.1	138
	8000	40	57.4	560.8	104	36.1	530.5	101	25.5	499.5	97	67.2	651.0	115	42.7	621.4	111	30.4	591.4	108	72.2	695.9	120	46.0	666.7	116	32.9	637.1	113
		60	48.2	471.0	114	30.0	440.6	111	20.9	409.7	107	57.9	561.0	125	36.5	531.6	121	25.8	501.4	118	62.8	605.8	130	39.8	576.7	127	28.2	547.0	123
		80	39.1	381.9	125	23.9	351.5	121	16.3	319.9	117	48.7	471.4	135	30.4	442.0	132	21.2	411.7	128	53.5	516.2	140	33.6	487.2	137	23.6	457.3	133
	9600	40	64.0	624.7	100	40.2	590.2	96	28.3	554.8	93	73.9	720.7	108	47.5	691.7	106	33.8	657.5	103	78.0	762.4	112	51.2	742.0	111	36.6	708.6	108
		60	53.7	524.7	111	33.4	490.2	107	23.2	454.7	104	64.5	625.1	120	40.6	591.5	117	28.6	557.2	114	70.0	675.2	125	44.3	641.9	122	31.4	608.2	119
		80	43.5	425.1	121	26.6	390.5	118	18.1	354.5	114	54.2	525.2	131	33.8	491.6	128	23.5	457.2	124	59.6	575.2	136	37.4	542.0	133	26.2	508.0	129

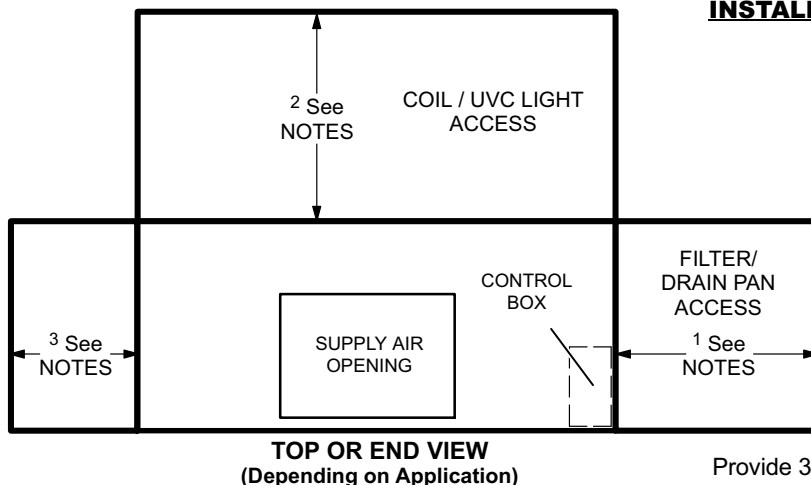
## WEIGHT DATA

Model Number	Net		Shipping	
	lbs.	kg	lbs.	kg
072	330	150	380	172
090	350	159	400	181
120	435	197	495	225
150	455	206	515	234
180	680	308	760	345
240	720	327	800	363

## OPTIONS / ACCESSORIES

		Net		Shipping	
		lbs.	kg	lbs.	kg
<b>ELECTRIC HEAT</b>					
072-150	10 kW	65	29	75	34
	15 kW	65	29	75	34
	25 kW	65	29	75	34
	35 kW	65	29	75	34
180-240	20 kW	100	45	120	54
	30 kW	100	45	120	54
	40 kW	100	45	120	54
	50 kW	100	45	120	54
<b>ECONOMIZER</b>					
	T2ECON31L-1-	71	32	165	75
	T2ECON31M-1-	114	52	265	120
	T2ECON31N-1-	160	73	370	168
<b>5 INCH FILTER MOUNTING KIT</b>					
	T2FLTR70L-1-	7	3	10	5
	T2FLTR70M-1-	10	5	14	6
	T2FLTR70N-1-	15	7	20	9
<b>HOT WATER COIL</b>					
	T2HWCL10LM1-	65	29	80	36
	T2HWCL10N-1-	80	36	100	45
<b>RETURN AIR GRILLE</b>					
	T2GARD30L-1	4	2	20	9
	T2GARD30M-1	5	2	30	14
	T2GARD30N-1	6	3	35	16
<b>UVC LIGHT KITS</b>					
	T2UVCL10LM1Y	17	8	20	9
	T2UVCL10N-1Y	23	10	26	12

## UNIT CLEARANCES - INCHES (MM)



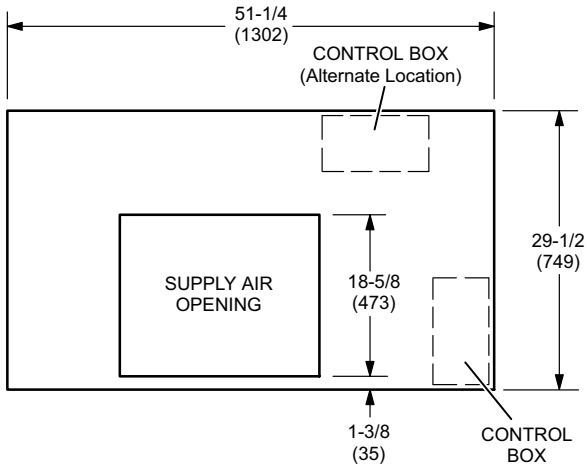
### INSTALLATION CLEARANCES (WITH ELECTRIC HEAT)

Cabinet - 0 in. (0 mm)  
 To Plenum - 0 in. (0 mm)  
 To Outlet Duct within 3 feet (914 mm) - 0 in. (0 mm)

### RECOMMENDED SERVICE CLEARANCES

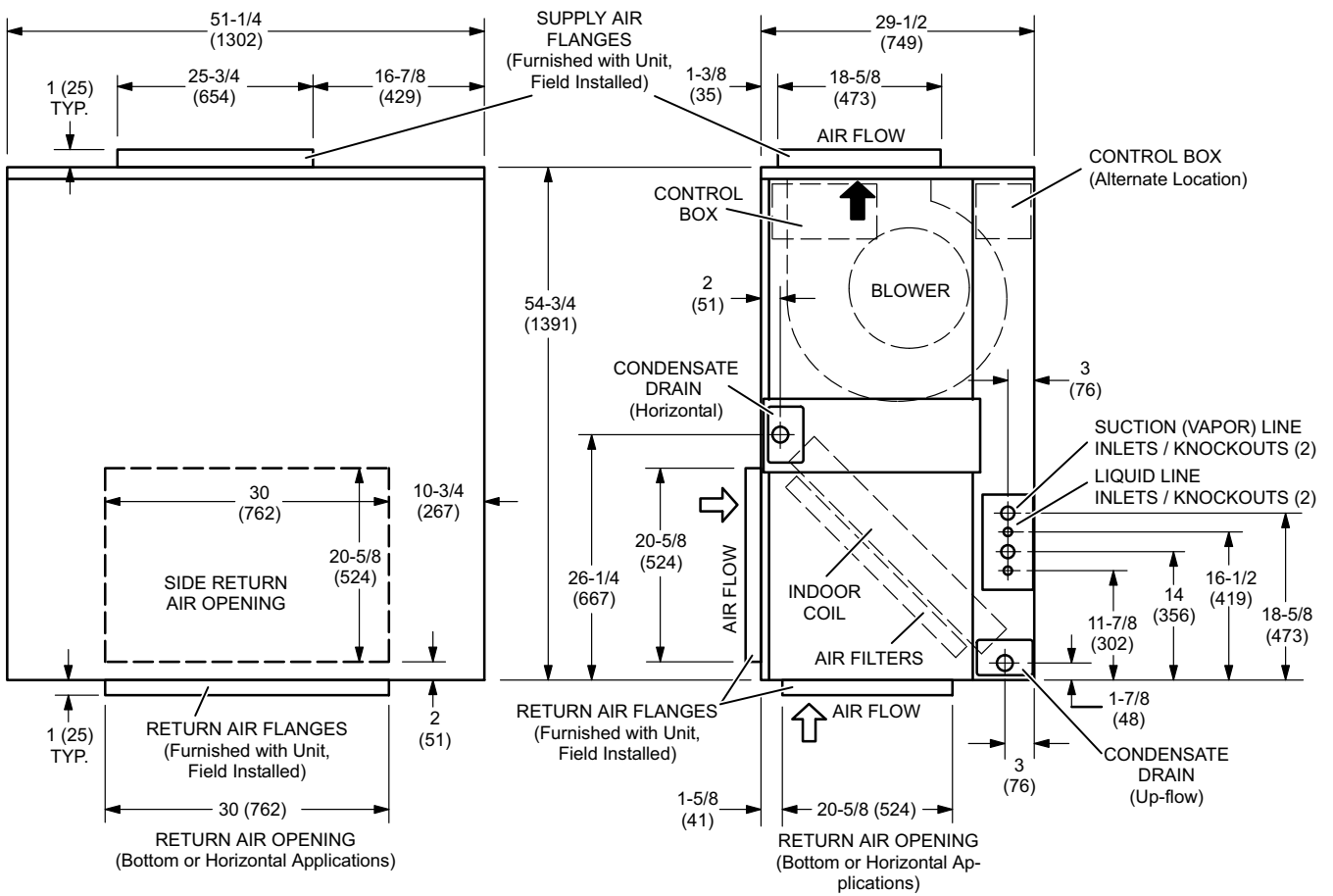
- Filter Removal and Routine Maintenance:**  
36 in. (914 mm)
- Service Clearance for Drain Pan Removal:**  
TAA072, TAA090 - 57 in. (1448 mm)  
TAA120, TAA150 - 73 in. (1854 mm)  
TAA180, TAA240 - 102 in. (2590 mm)
- Coil Cleaning / UVC Light Access (Up-Flow):**  
All models - 36 in. (914 mm)
- Alternate Coil Cleaning / UVC Light Access:**  
Provide 36 in. (914 mm) on this side if top/rear access is obstructed
- Alternate Drain/Refrigerant Line Location:**  
Allow additional clearance if refrigerant or drain lines are routed from this side of cabinet.

**UP-FLOW POSITION SHOWN**



**SUPPLY END VIEW**

**NOTE:**  
072 models only use one Suction and Liquid Line. Cabinet has knockouts for two. Either opening may be used.

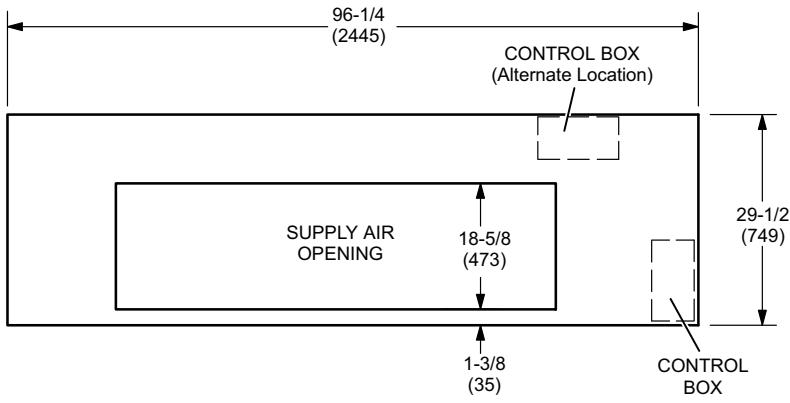


**INLET VIEW**

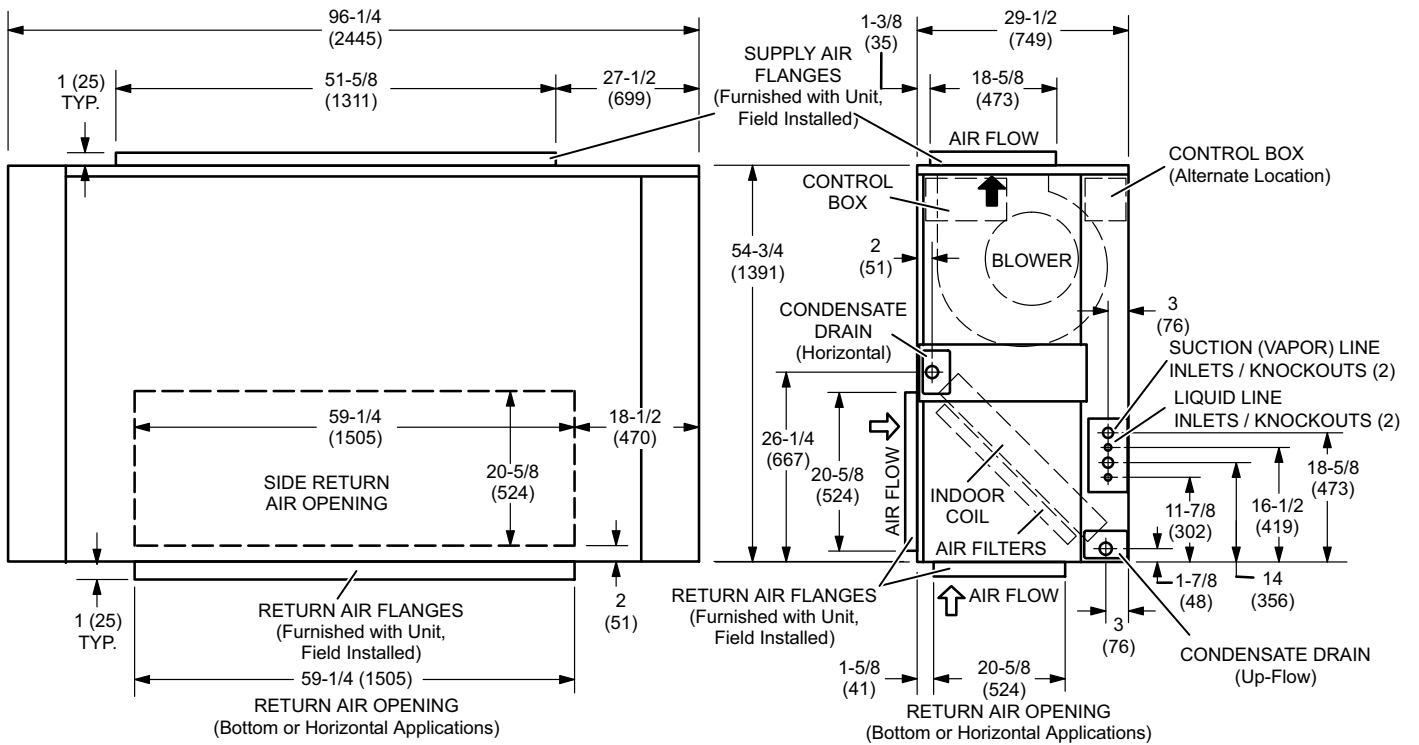
**DRIVE END VIEW**



**UP-FLOW POSITION SHOWN**

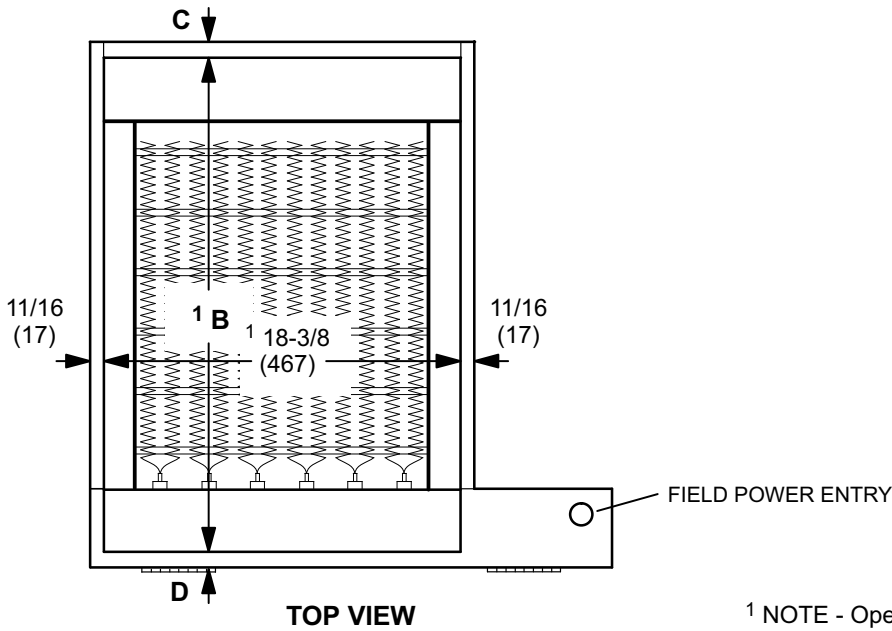


**SUPPLY END VIEW**

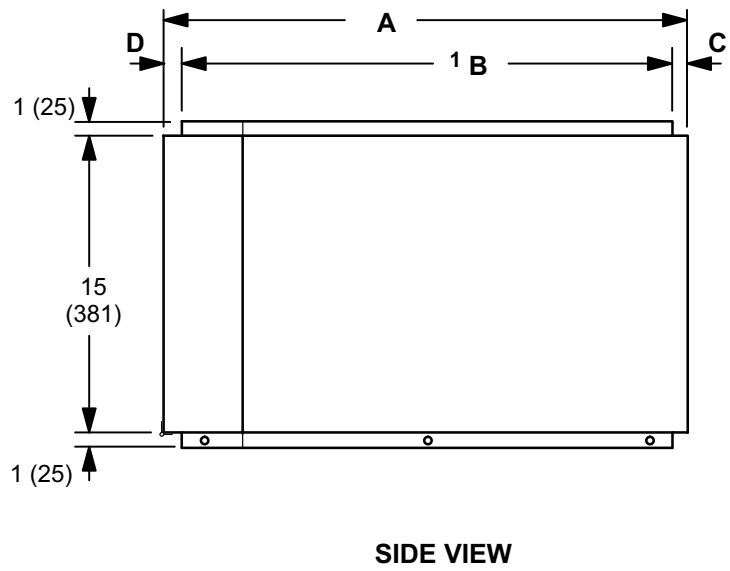
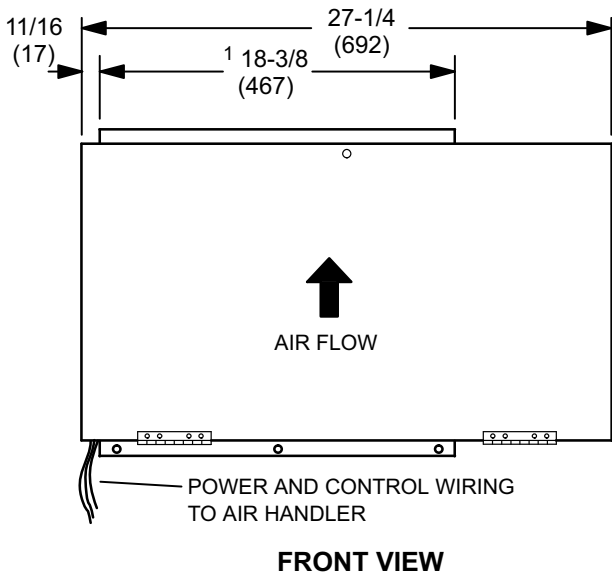


**INLET VIEW**

**DRIVE END VIEW**

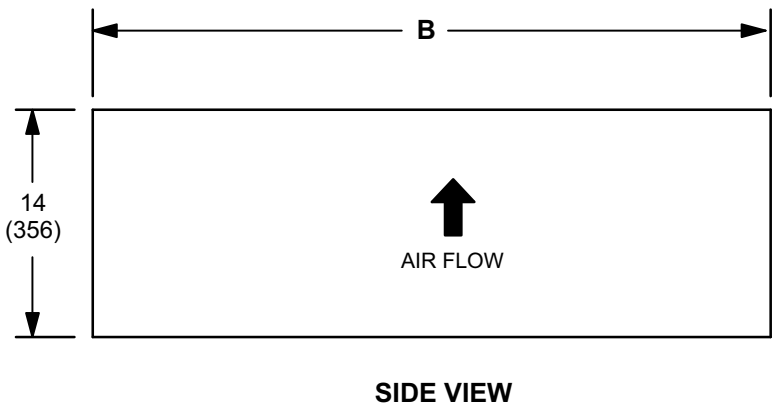
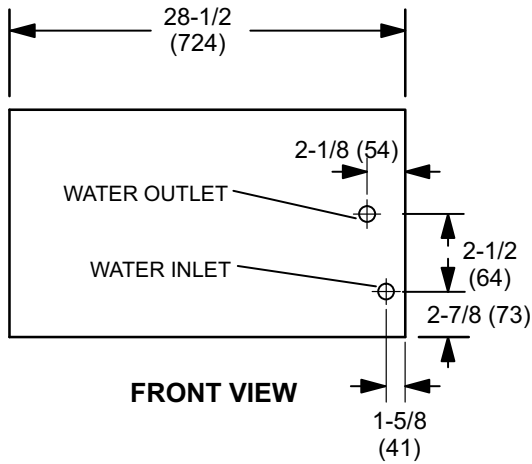
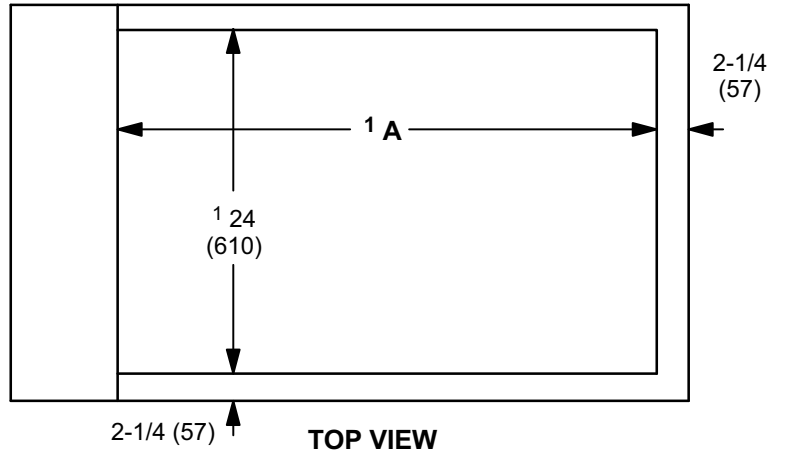


<sup>1</sup> NOTE - Openings same size top and bottom.



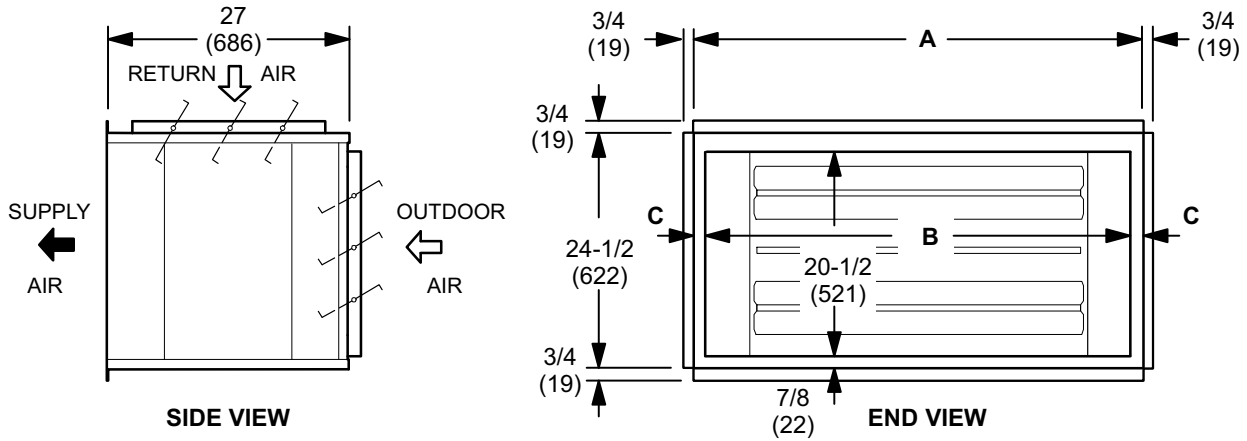
Air Handler Usage	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
TAA072 Thru TAA150	27-1/8	689	25-1/2	648	13/16	21	13/16	21
TAA180 Thru TAA240	56-3/4	1441	51-1/4	1302	1-1/2	38	4	102

<sup>1</sup> NOTE - Openings same size top and bottom.



Air Handler Usage	A		B	
	in.	mm	in.	mm
TAA072 Thru TAA150	36	914	48	1219
TAA180 Thru TAA240	54	1372	66	1676

NOTE- Economizer section may be rotated 180° for bottom return air connection.



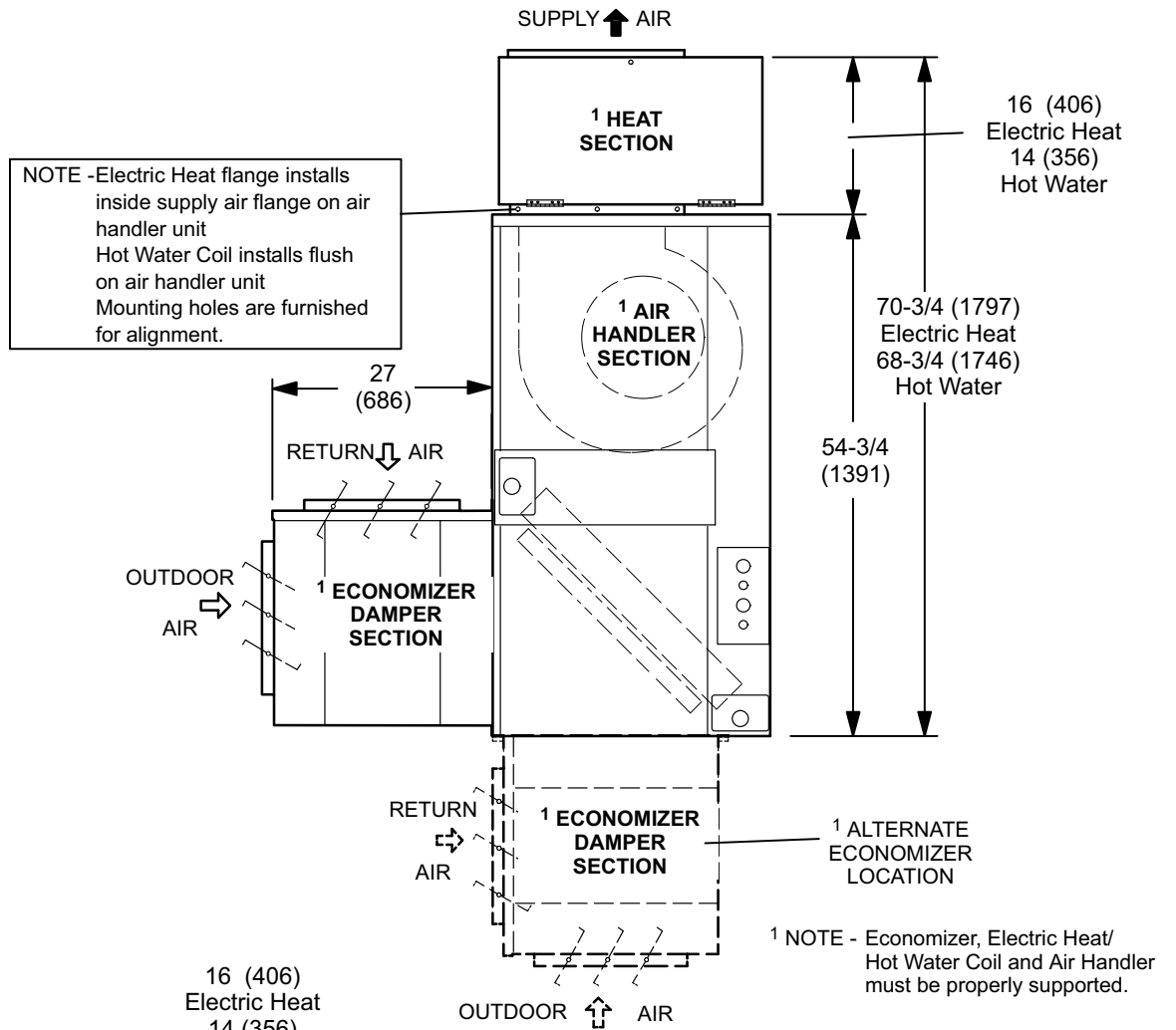
Model No. (Air Handler Usage)	A		B		C	
	in.	mm	in.	mm	in.	mm
T2ECON31L-1- (072-090)	32	813	30	762	1	25
T2ECON31M-1- (120-150)	51-1/2	1308	45	1143	3-1/4	83
T2ECON31N-1- (180-240)	72	1829	60	1524	6	152



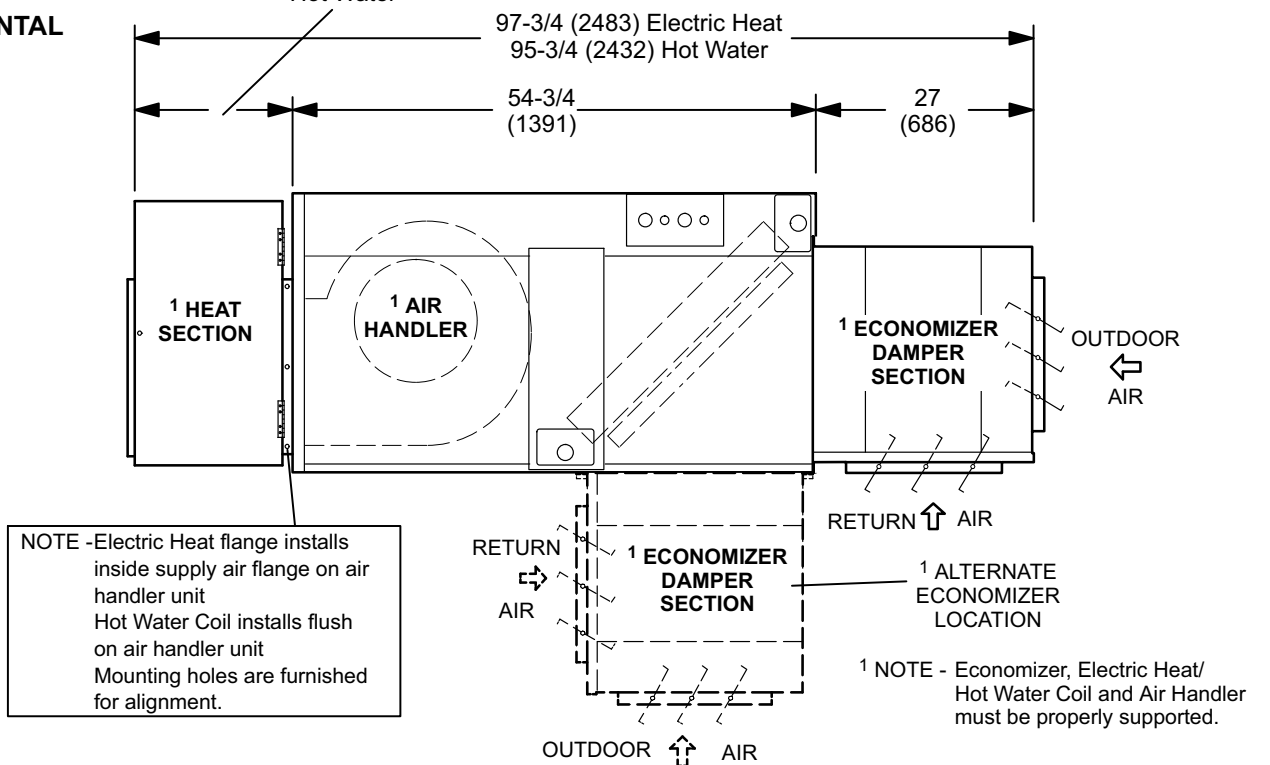
**ACCESSORY DIMENSIONS - INCHES (MM)**

**AIR HANDLER WITH OPTIONAL ELECTRIC HEAT/HOT WATER COIL AND ECONOMIZER**

**UP-FLOW**



**HORIZONTAL**



## GUIDE SPECIFICATIONS

This specification specifies Lennox Industries T-Class™ Indoor Air Handlers, 6 to 20 tons, TA series. Revise specification section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles.

This specification utilizes the Construction Specifications Institute (CSI) *Manual of Practice*, including *MasterFormat*™, *SectionFormat*™ and *PageFormat*™. Optional text and text requiring a decision is indicated by **bold brackets [ ]**; delete text not required in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

### SECTION 23 82 19

#### FAN COIL UNITS

##### PART 1 GENERAL

###### 1.1 SUMMARY

- A. Section Includes: Up-Flow/Horizontal Air handler Units.

**Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier's practice.**

- B. Related Sections:

**Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.**

###### 1.02 REFERENCES

1. Air-Conditioning and Refrigeration Institute (ARI) 340/360-2007 Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment.
- B. Servicing Safety Standards:
    1. National Electric Code (NEC).
    2. Canadian Electric Code (CEC).
    3. Canadian Standards Association (CSA)
  - C. Units to be Department of Energy (DOE) rated
  - D. ISO 9001, units manufactured to quality standard.
  - E. All unit to be ETL listed

**Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.**

###### 1.03 SYSTEM DESCRIPTION

- A. Performance Requirements:
  1. Air handler: **[6, 7.5,10,12.5,15,20]** tons
  2. 60 Hz.
  3. 3-phase

### 4. [208/230 V] [460 V] [575 V]

**Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.**

#### 1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures.
- B. Product Data: Submit product data for specified products.
- C. Shop Drawings:
  - 1. Submit shop drawings in accordance with Section [01330 - Submittal Procedures].
  - 2. Indicate:
    - a. Equipment, piping and connections, together with valves, strainers, control assemblies, thermostatic controls, auxiliaries and hardware and recommended ancillaries which are mounted, wired and piped ready for final connection to building system, its size and recommended bypass connections.
    - b. Piping, valves and fittings shipped loose showing final location in assembly.
    - c. Control equipment shipped loose, showing final location in assembly.
    - d. Field wiring diagrams.
    - e. Dimensions, internal and external construction details, installation clearances, recommended method of installation, sizes and location of mounting bolt holes.
    - f. Detailed composite wiring diagrams for control systems showing factory installed wiring and equipment on packaged equipment or required for controlling devices or ancillaries, accessories, controllers.
- D. Quality Assurance:
  - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
  - 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
  - 3. Manufacturer's Instructions: Manufacturer's installation instructions.

**Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article herein. Retain or delete as applicable.**

- E. Manufacturer's Field Reports: Manufacturer's field reports specified herein.
- F. Closeout Submittals: Submit the following:
  - 1. Warranty: Warranty documents specified herein.
  - 2. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance. Include names and addresses of spare part suppliers.
  - 3. Provide brief description of unit, with details of function, operation, control and component service.
  - 4. Commissioning Report: Submit commissioning reports, report forms and schematics in accordance with Section 01810 - Commissioning.

#### 1.05 QUALITY ASSURANCE

- A. Qualifications:
  - 1. Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

## GUIDE SPECIFICATIONS

### 1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Packing, Shipping, Handling and Delivery:
  - 1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
  - 2. Ship, handle and unload units according to manufacturer's instructions.
- D. Storage and Protection:
  - 1. Store materials protected from exposure to harmful weather conditions.
  - 2. Factory shipping covers to remain in place until installation.

**Specifier Note: Coordinate article below with Conditions of the Contract and Division 1 Closeout Submittals (Warranty).**

### 1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

**Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements.**

- C. Warranty: Commencing on Date of Installation.

**Specifier Note: Refer to Lennox Equipment Limited Warranty certificate included with equipment for details.**

- 1. All Covered Components: 1 year limited (nonresidential applications).

## PART 2 PRODUCTS

**Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.**

### 2.01 UP-FLOW/HORIZONTAL/MULTI-POSITION AIR HANDLER UNITS

- A. Manufacturer: Lennox Industries.
  - 1. Contact: 2100 Lake Park Blvd., Richardson, TX 75080; Telephone: (800) 453-6669; Web site: [www.lennox.com](http://www.lennox.com).
- B. General:
  - 1. Air-Flow
    - a. Up-flow/horizontal
    - b. [6] [7.5] [10] [12.5] [15] [20] nominal tonnage.
- C. Proprietary Products/Systems:
  - 1. Cabinet:
    - a. Heavy gauge galvanized steel.
    - b. Insulated with thick fiberglass insulation
    - c. Removable service access on all 4 sides.
    - d. Drain Pans:
      - 1. Corrosion resistant plastic.
      - 2. Reversible drain pan
      - 3. Designed for up-flow and Horizontal applications.
  - 2. Refrigerant System:
    - a. Refrigerant: R-410a
    - b. Refrigerant Line Connections: Suction (vapor) and liquid lines are internal to the cabinet with sweat connections.
    - c. Copper Tube/Enhanced Fin Evaporator Coil:
      - 1. Lanced, ripple-edged aluminum fins.
      - 2. Seamless copper tubing.
      - 3. Rifled copper tubing.
      - 4. Flared shoulder tubing joints and silver soldering.

## GUIDE SPECIFICATIONS

5. Factory leak tested under high pressure.
- d. Check and Expansion Valve:
  1. Factory installed and piped
  2. Internal Check valves, if required
3. Belt Drive Blower:
  - a. Single or dual blower wheels.
  - b. Heavy-duty blower wheel.
  - c. Statically and dynamically balanced blower wheels.
  - d. Forward curved blades and double inlet.
  - e. Heavy-duty, permanently sealed and lubricated bearings
  - f. Low, standard, or high static drive as called out on schedule
4. Blower relay factory installed
5. Low voltage terminal strip factory installed
6. Filter:
  - a. Rails furnished in cabinet.
  - b. **[Factory installed, 2 " filter] [Field installed, 5" MERV 10] [Field installed, 5" MERV 16].**
7. **[Optional Accessories]:**
  - a. **[Single-Point Power Source Control Box]**
  - b. **[Economizer Damper Section:**
    1. **Factory assembled and wired dampers and controls for field installation.**
    2. **Heavy-gauge, steel cabinet with thick, matte-faced fiberglass insulation.**
    3. **Removable access panels.**
    4. **Mounting flanges for blower-coil unit connection.**
    5. **Outdoor air opening and return air opening flanges for duct connection.**
    6. **Mechanically linked outdoor air and recirculated air dampers.**
    7. **Outdoor air dampers reinforced and gasketed.**
    8. **Plated damper linkage and shafts.**
    9. **24 V fully modulating, electronic spring return damper motor with adjustable minimum position potentiometer, controlled by room thermostat, adjustable mixed air sensor and adjustable enthalpy control.**
    10. **Free cooling capability (100% fresh air).]**
  - c. **[Differential Enthalpy Control: Solid state return air enthalpy sensor field installable in economizer damper section.]**
  - d. **[Electric Heat:**
    1. **Field Installed**
    2. **Separate add-on cabinet, heavy gauge, galvanized steel with pre-punched holes and mounting hardware.**
    3. **Double wall construction.**
    4. **Removable access panels.**
    5. **Electrical Wiring Inlet.**
    6. **Helix wound, ni-chrome heating elements insulated from heavy-gauge steel support frame.**
    7. **Time delay relay elements with individual limit controls.**
    8. **Sub-fusing, contactors, control relays, 24 V transformer and terminal block.]**
  - e. **[Freezestat – Field Installed]**
  - f. **[Healthy Climate® UVC germicidal light kit – Field Installed]**
  - g. **[Hot Water Coil:**
    1. **Field Installed**
    2. **Separate add-on cabinet, heavy gauge, galvanized steel with pre-punched holes and mounting hardware.**
    3. **Completely insulated with thick foil faced fiberglass insulation.**
    4. **Removable access panels.**
    5. **Reversible cabinet allows piping on either side of unit.**
    6. **Rippled edge aluminum fins fitted to copper tubes.**
    7. **Flared shoulder tubing connections.**
    8. **Coils are to be pressure tested under high pressure to ensure leak proof construction.**
    9. **All valves and pumps are field supplied and installed]**
  - h. **[L Connection® Network]**
  - i. **[Coil corrosion protection]**
  - j. **[Condensate float switch – Field Installed]**

## GUIDE SPECIFICATIONS

**Specifier Note: Edit Article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.**

### 2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

## PART 3 EXECUTION

### 3.01 MANUFACTURER'S INSTRUCTIONS

**Specifier Note: Article below is an addition to the CSI *SectionFormat*. Revise article below to suit project requirements and specifier's practice.**

- A. Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalog installation instructions and product carton installation instructions.

### 3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

### 3.03 INSTALLATION

- A. Install TA series Air Handler Units in accordance with the manufacturer's instructions and regulations of authorities having jurisdiction.

END OF SECTION



## REVISIONS

Sections	Description of Change
Optional Accessories	Added Specifications and dimensions for Hot Water Heat Section.



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[www.lennoxcommercial.com](http://www.lennoxcommercial.com)  
Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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