



COMMERCIAL PRODUCT SPECIFICATIONS

AIR HANDLERS

ELA

T-SERIES Commercial Split Systems
Upflow/Horizontal - R-410A - 60 Hz

Bulletin No. 310806

June 2020

Supersedes February 2018



072-090-120-150 Models



180-240 Models

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

MODEL NUMBER IDENTIFICATION

EL A 120 S 4 D - 1 Y

Brand/Family
EL = E-Series Product Line

Voltage
Y = 208/230V-3 phase-60hz
G = 460V-3 phase-60hz
J = 575V-3 phase-60hz

Unit Type
A = Split System Air Handler

Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Nominal Cooling Capacity - Tons
072 = 6 Tons
090 = 7.5 Tons
120 = 10 Tons
150 = 12.5 Tons
180 = 15 Tons
240 = 20 Tons

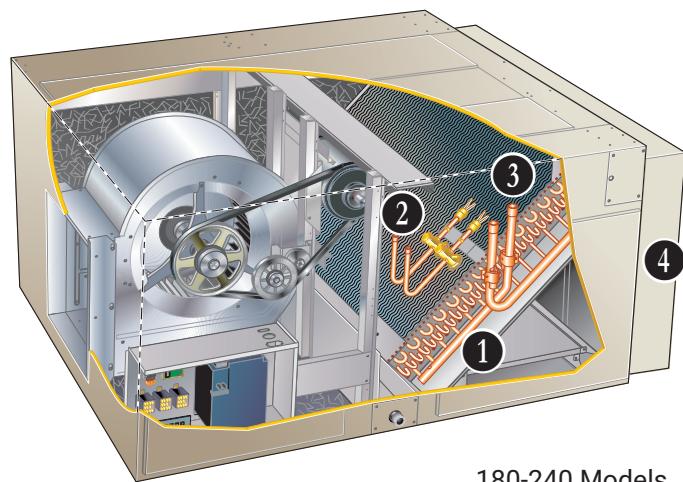
Refrigerant Circuits
S = Single Circuit
D = Dual Circuits

Cooling Efficiency
S = Standard Efficiency

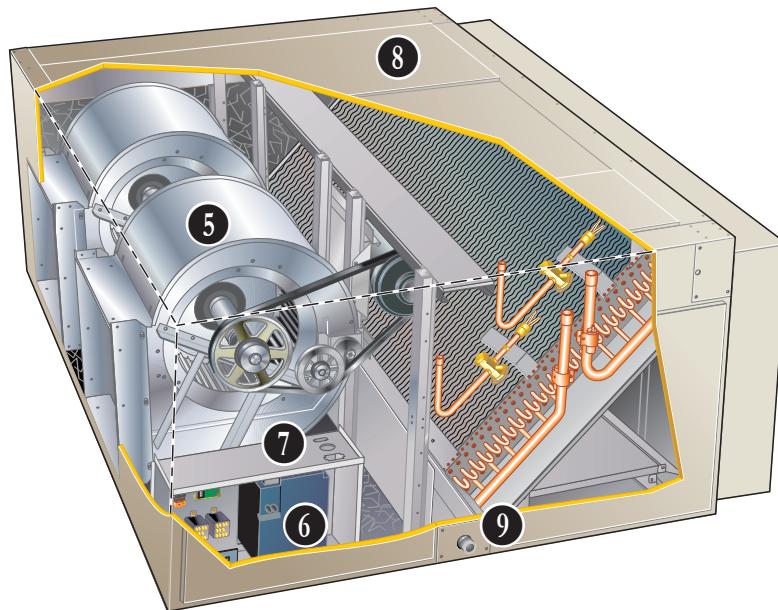
Refrigerant Type
4 = R-410A

FEATURE HIGHLIGHTS

1. Multi-Circuit, Copper Tube Coil
2. Expansion Valve
3. Refrigerant Piping and Drain Connections
4. External Filter Rack
5. Belt Drive Blowers
6. Single Zone VAV Supply Fan
7. Control Box
8. Heavy Guage Steel Cabinet
9. Corrosion Resistant Drain Pan



180-240 Models



072-090-120-150 Models

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APPROVALS AND WARRANTY

APPROVALS

- Tested with matching air conditioners and heat pump units in accordance with AHRI Standard 340/360
- AHRI Certified system match-ups and expanded ratings, visit www.LennoxPros.com
- ETL Listed to US and Canadian safety standards and components within are bonded for grounding to meet safety standards for servicing required by NEC and CEC
- Meet ASHRAE 90.1, IECC 2015 and California Code of Regulations, Title 24 requirements for staged airflow
- Blower performance data according to unit tests conducted in an air test chamber
- ISO 9001 Registered Manufacturing Quality System

WARRANTY

- All covered components - Limited one year
- High Performance Economizers (optional) - Limited five years

FEATURES AND BENEFITS

APPLICATIONS

- The E-Series 6-20 ton large split system air handlers combine Single Zone VAV Supply Fan and up to two stages of cooling to provide temperature control and enhanced humidity control
- Provides installation versatility in a variety of applications
- Superior efficiency in air conditioning and heat pump applications with enhanced air handling and filtering
- Easy to field service
- Equipped with single circuit (072) or dual-circuit (090-240) indoor coils
- Suitable for application with Allied 6 to 20 ton ELS air conditioners or 7.5 to 10 ton ELP heat pump outdoor units
- Convertible upflow or horizontal design
- Each refrigerant circuit has a dedicated expansion valve
- 090-240 models have a dual distribution system for two stage capacity control
- 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

REFRIGERATION SYSTEM

1 Multi-Circuit, Copper Tube Coil

- Extra large surface 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

- Coil is constructed of precisely spaced ripple edged aluminum fins fitted to durable seamless, rifled copper tubes
- Rifled tubing provides enhanced heat transfer which results in maximum coil performance when combined with 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

Freezestats

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

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

FEATURES AND BENEFITS

REFRIGERATION SYSTEM (continued)

Options/Accessories

Field Installed

Float Switch Kit

- Float switch interrupts cooling operation if excessive condensate collects in the drain pan

Heat Pump Check Valve Kit (240 Models Only)

- Contains valve assemblies that field convert the coil to allow it to be matched with two smaller heat pump outdoor units

INDOOR AIR QUALITY

4 External Filter Rack

- Filter rack design permits quick and easy removal of filters for servicing
- Heavy-gauge galvanized steel cabinet is completely insulated with thick, foil-faced fiberglass insulation and painted to match the unit
- Furnished and shipped inside the unit for field installation
- Must be field assembled
- 2-inch thick, MERV 8 pleated media filters are furnished as standard

Options/Accessories

Field Installed

Air Filters

- Disposable MERV 8 or high efficiency MERV 13 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 4-inch pleated filters
- 4-inch pleated filters offer longer filter life and better filtration efficiency compared to standard 2 inch filters

4-Inch External Filter Mounting Kits

- Required for use with Health Climate MERV 8 or MERV 13 filters
- Kit includes filter rack for 4-inch filters
- Must be field assembled

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

6 Single Zone VAV Supply Fan VFD Kit

- Variable frequency drive (VFD) and control stages the supply air blower airflow
- Designed for use on dual-stage split systems the VFD alters the frequency and voltage of the power supply to control blower motor speed and airflow
- Supply air blower has two speeds:
 1. Low speed for part-load cooling operation
 2. High speed for full load cooling and all heat modes
- Full speed blower operation is set by adjusting the motor pulley to deliver the desired air volume
- The ventilation speed is selectable between high and low speed

NOTE - Low speed is 66% of high speed.
Part load airflow in cooling mode on **Single Zone VAV Supply Fanunits** should not be set below 220 cfm/nominal full load ton to reduce the risk of evaporator coil freeze-up.

- Lower operating costs are obtained when the blower is operated on lower speeds

NOTE - Units equipped a Variable Frequency Drive (VFD) are designed to operate on balanced, three-phase power. Operating units on unbalanced three-phase power will reduce the reliability of all electrical components in the unit. Unbalanced power is a result of the power delivery system supplied by the local utility company. Factory-installed inverters are sized to drive blower motors with an equivalent current rating using balanced three-phase power. If unbalanced three-phase power is supplied; the installer must replace the existing factory-installed inverter with an inverter that has a higher current rating to allow for the imbalance. Refer to the installation instructions for additional information and replacement information.

Single Zone VAV Supply Fan Sequence of Operation

- Ventilation speed is determined by the VENT SPEED switch setting on VFD control board (LO or HI)
- Blower operates in low speed for mechanical cooling (Y1)
- Blower operates in high speed for any other mode (free cooling, mechanical cooling Y1+Y2, and heating)
- Economizer damper minimum position is fully closed in unoccupied mode
- In occupied mode, the economizer damper minimum position is determined by the setting of the two potentiometers on VFD control board
 - LO SPD MIN POS potentiometer sets the minimum position when blower is operating at low speed
 - HI SPD MIN POS potentiometer sets the minimum position when blower is operating at high speed

FEATURES AND BENEFITS

BELT DRIVE BLOWERS (continued)

Options/Accessories

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

7 Control Box

- Located in separate compartment in unit cabinet
- Low voltage terminal strip factory installed
- Blower contactor furnished and factory installed in control box
- All controls are pre-wired at the factory

NOTE - Freezestat wiring needs to be field wired depending on upflow or horizontal configuration.

Options/Accessories

Field Installed

Thermostat

- Thermostat is not furnished with unit and must be ordered extra
-

Aftermarket Unit Controller Options

- See Options/Accessories table for selection

CABINET

8

- Heavy-gauge, pre-painted steel for superior rust and corrosion protection
- Completely lined with thick fiberglass insulation resulting in quiet and efficient operation
- Closed-cell foam on top mullion between the blower and coil section reduces heat transfer through cabinet and prevents moisture build-up on outside of cabinet
- Supply and return air duct flanges are furnished for field installation
- Service access provided on three sides of unit
- Large removable panels provide complete service access on one side of unit
- Electrical inlets are conveniently located in the cabinet

9 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
- Drain pan is removable from either side in both horizontal and vertical applications
- Blow-off baffle and extended drip shield collects condensate from the coil and directs it to the drain pan

Options/Accessories

Factory Installed

Corrosion Protection

- Polymeric epoxy coating
- Deposited by electrical transport (electrophoresis), using a process known as electrocoat (e-coat)
- Available for enhanced coil corrosion protection
- 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

OPTIONS / ACCESSORIES

ELECTRIC HEAT SECTION

Field Installed

- 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

Field Installed

- Furnished in a separate add-on matching cabinet
- Mounting hardware is furnished to secure cabinets together
- Pre-punched mounting holes are furnished for aligning hot water 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
- 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

NOTE - Valves and pumps must be furnished by installer.

OPTIONS / ACCESSORIES

ECONOMIZER

Field Installed

- 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 air handler unit
- Flanges on outdoor air opening and return air opening permit easy duct connection
- Damper linkage and shafts are plated

Standard Economizer Features (Not for Title 24)

- Gear-driven action, return air and outdoor air dampers, plug-in connections to unit, neoprene seals, 24-volt, fully-modulating spring return motor, adjustable minimum damper position

Standard Economizer Control Module

- The Standard Economizer Control Module can be adjusted to operate based on outdoor air temperatures.



Economizer Controls:

- **Damper Minimum Position** - Can be set lower than traditional minimum air requirements resulting in cost savings
- **IAQ Sensor** - Signals dampers to modulate and maintain 55°F when CO₂ is higher than the CO₂ setpoint
- **Demand Control Ventilation (DCV) LED** - A steady green Demand Control Ventilation LED indicates the IAQ reading is higher than setpoint and requires more fresh air
- **Free Cool LED** - A steady green LED indicates outdoor air is suitable for free cooling

NOTE - Free Cooling runs when outdoor air temperature is lower than the set temperature on the economizer control.

NOTE: The Free Cooling default setting for outdoor air temperature sensor is 55°F.

High Performance Economizer Features

Approved for California Title 24 building standards.

- ASHRAE 90.1-2010 compliant
- Gear-driven action, high torque 24-volt fully-modulating spring return damper motor, return air and outdoor air dampers, plug-in connections to unit, nylon bearings, enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage

NOTE - High Performance Economizers are not approved for use with enthalpy controls in Title 24 applications.

High Performance Economizer Control Module

- Module provides inputs and outputs to control economizer based on parameter settings
- Module automatically detects sensors by polling to determine which sensors are installed in system
- Module displays any alarm messages (fault detection and diagnostics) as an aid in troubleshooting
- Non-volatile memory retains parameter settings in case of power failure
- Keypad with four navigation buttons and LCD screen is furnished for setting economizer parameters
 - Menu Up/Exit button returns to the main menu.
 - Arrow Up button moves to the previous or next parameter within the selected menu
 - Arrow Down button moves to the next parameter within the selected menu
 - Select (enter) button confirms parameter selection



Main Menu Structure:

- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/information about the system)
- ADVANCED SETUP (freeze protection, CO₂ settings, stage 3 delay and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

NOTE - The free cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2013 Building Energy Efficiency Standards. Refer to Installation Instructions for complete setup information and menu parameters available.

Differential Enthalpy Control (Not for Title 24)

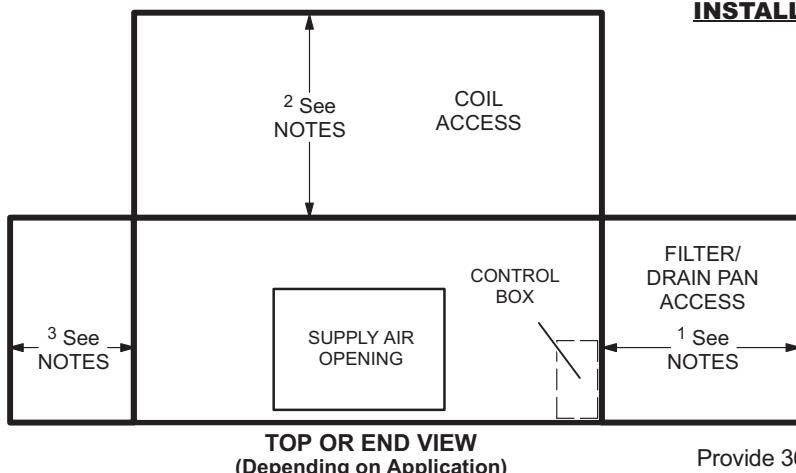
- Allows the outdoor air enthalpy control to select between outdoor air or return air, whichever has lower enthalpy
- Field installed in economizer damper section

Single Enthalpy Temperature Control (Not for Title 24)

- Outdoor air enthalpy sensor enables Economizer if the outdoor enthalpy is less than the setpoint of the control

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UNIT CLEARANCES



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

1 Filter Removal and Routine Maintenance:
36 in. (914 mm)

1 Service Clearance for Drain Pan Removal:
ELA072, ELA090 – 57 in. (1448 mm)
ELA120, ELA150 – 73 in. (1854 mm)
ELA180, ELA240 – 102 in. (2590 mm)

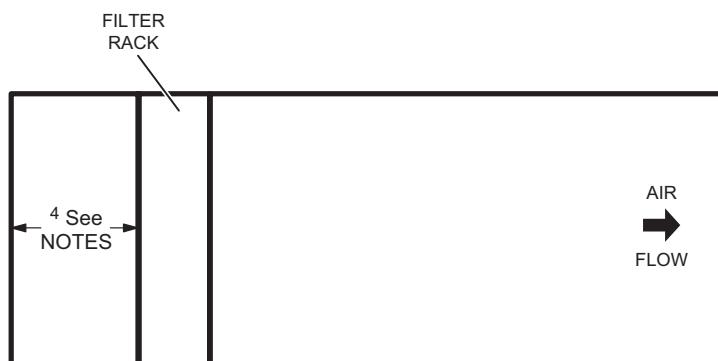
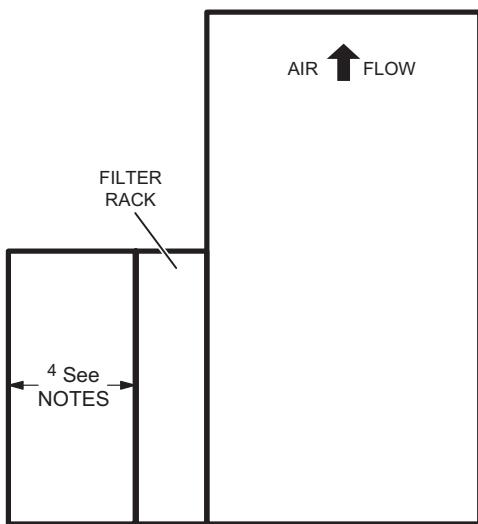
2 Coil Cleaning (Upflow):
All models – 36 in. (914 mm)

3 Alternate Coil Cleaning:

Provide 36 in. (914 mm) on this side if top/rear access is obstructed

Allow additional clearance if refrigerant or drain lines are routed from this side of cabinet.

4 Freestanding Operation With Filter Rack But Without Return Air Duct:
All models - 24 in. (610 mm)



SPECIFICATIONS

General Data	Model No.	ELA072S4S	ELA090S4D
	Nominal Tonnage	6	7.5
	Blower Type	Single Zone VAV Supply Fan	Single Zone VAV Supply Fan
Connections	No. of Circuits	1	2
	Liquid line o.d. - in. (sweat)	(1) 5/8	(2) 5/8
	Suction/Vapor line o.d. - in. (sweat)	(1) 7/8	(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.	9.2	9.2
	Coil (Face) Split - 1st stage / 2nd stage (%)	---	50/50
	Tube diameter - in.	3/8	3/8
	Number of rows	3	4
	Fins per inch	17	17
Blower and Drive	See Blower Drive Specifications Table on page 18.		
	Wheel nominal diameter & width - in.	(1) 15 x 15	(1) 15 x 15
¹ Filter	Number and size - in.	(3) 16 x 25 x 2	(3) 16 x 25 x 2

¹ External Filter Rack is shipped with unit for field assembly and installation.

SPECIFICATIONS

General Data	Model No.	ELA120S4D	ELA150S4D	ELA180S4D	ELA240S4D
	Nominal Tonnage	10	12.5	15	20
	Blower Type	Single Zone VAV Supply Fan			
Connections	No. of Circuits	2	2	2	2
	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.	12.5	12.5	18.5	18.5
	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	17	17	17	17
Blower and Drive	See Blower Drive Specifications Table on page 18.				
	Wheel nominal diameter & width - in.	(1) 15 x 15	(1) 15 x 15	(2) 15 x 15	(2) 15 x 15
¹ 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

¹ External Filter Rack is shipped with unit for field assembly and installation.

OPTIONS / ACCESSORIES

Item	Catalog No.	072	090	120	150	180	240
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BLOWER

Blower Motor and Drive Kits	Factory	See page 18
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CABINET

Corrosion Protection	Factory	O	O	O	O	O	O
Float Switch	A2SNSR71LN1- 16B29	X	X	X	X	X	X

CONTROL SYSTEMS

BACnet® Module and Enclosure Kit	A0CTRL31LS1 17A08	X	X	X	X	X	X
BACnet® Sensor with Display	K0SNSR01FF1 97W23	X	X	X	X	X	X
BACnet® Sensor without Display	K0SNSR00FF1 97W24	X	X	X	X	X	X
Network Thermostat Controller (NTC)	C0CTRL07AE1L 17M10	X	X	X	X	X	X
NTC Enclosure Kit (required with NTC Controller)	A0CTRL32LS1 16H99	X	X	X	X	X	X
L Connection® Building Automation System	- - -						

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

O - Factory Installed with extended lead time.

X - Field Installed.

OPTIONS / ACCESSORIES

Item	Catalog No.	072	090	120	150	180	240
ELECTRIC HEAT							
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
ECONOMIZER							
Standard Economizers (Not for Title 24)							
	A2ECON31L-1	17A10	X	X			
	A2ECON31M-1	17A11			X	X	
	A2ECON31N-1	17A12				X	X
High Performance Economizers (Approved for California Title 24 Building Standards)							
	A2ECON34L-1	17A13	X	X			
	A2ECON34M-1	17A14			X	X	
	A2ECON34N-1	17A15				X	X
Economizer Controls (Not for Title 24)							
Single Enthalpy Control (Standard Economizer)	C1SNSR64FF1	53W64	X	X	X	X	X
Single Enthalpy Control (High Performance Economizer)	C1NSR61FF1	11G21	X	X	X	X	X
NOTE - FOR DIFFERENTIAL ENTHALPY CONTROL ORDER TWO OF THE SAME CONTROLS ABOVE.							
HOT WATER COIL							
	T2HWCL10LM1-	44W20	X	X	X	X	
	T2HWCL10N-1-	44W21				X	X
INDOOR AIR QUALITY							
Air Filters							
1	MERV 8 - A2FLTR16LS1-	16C78	X	X	X	X	X
Air Filters (16 x 25 x 4)	MERV 13 (high efficiency) - A2FLTR41LS1-	16C79	X	X	X	X	X
4-Inch Filter Mounting Kits	A2FLTR70L-1-	17A05	X	X			
	A2FLTR70M-1-	17A06			X	X	
	A2FLTR70N-1-	17A07				X	X
Indoor Air Quality (CO ₂) Sensors							
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	77N39	X	X	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display	C0SNSR52AE1L	87N53	X	X	X	X	X
Sensor - Black plastic case with LCD display, rated for plenum mounting	C0SNSR51AE1L	87N52	X	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	87N54	X	X	X	X	X
CO ₂ Sensor Duct Mounting Kit	C0MISC19AE1-	85L43	X	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO ₂ sensor (77N39)	C0MISC16AE1-	90N43	X	X	X	X	X
REFRIGERANT SYSTEM							
Heat Pump Check Valve Kit	A2CVLV11N-1-	16G33					X
NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.							
X - Field Installed.							
1 Order 4 in. Filter Mounting Kit and required number of MERV 8 or MERV 13 filters: - (3) 072-090, (4) 120-150, (6) 180-240.							
2 Step-down transformer (460V or 575V to 208/230V-1ph) or separate power supply is required.							

BLOWER DATA

BLOWER DRIVE SPECIFICATIONS

Static	RPM Range	Motor HP		072	090	120	150	180	240
		Nominal	Maximum						
Low	563 - 798	1.5	1.5	O	---	---	---	---	---
Standard	798 - 1033	1.5	1.5	S	---	---	---	---	---
High	878 - 1097	2	2	O	---	---	---	---	---
Low	562 - 796	2	2	---	O	---	---	---	---
Standard	796 - 1030	2	2	---	S	---	---	---	---
High	865 - 1071	3	3	---	O	---	---	---	---
Low	560 - 793	2	2	---	---	O	---	---	---
Standard	793 - 1027	3	3	---	---	S	---	---	---
High	865 - 1071	3	3	---	---	O	---	---	---
Low	653 - 887	3	3	---	---	---	O	---	---
Standard	846 - 1081	5	5	---	---	---	S	---	---
High	896 - 1146	5	5	---	---	---	O	---	---
Low	598 - 820	3	3	---	---	---	---	O	---
Standard	820 - 1041	5	5	---	---	---	---	S	---
High	875 - 1111	5	5	---	---	---	---	O	---
Low	689 - 875	5	5	---	---	---	---	---	O
Standard	810 - 1036	7.5	7.5	---	---	---	---	---	S
High	963 - 1232	7.5	7.5	---	---	---	---	---	O

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 Allied 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

O - Factory Installed with extended lead time.

BLOWER MOTOR ELECTRICAL DATA

		Model No.	072	090	120	150	180	240
1.5 HP Blower Motor	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230V-60hz-3ph	15 / 8	---	---	---	---	---
		460V-60hz-3ph	15 / 4	---	---	---	---	---
		575V-60hz-3ph	15 / 3	---	---	---	---	---
	Blower Motor Full Load Amps	208/230V-60hz-3ph	5.7	---	---	---	---	---
		460V-60hz-3ph	3	---	---	---	---	---
		575V-60hz-3ph	2.4	---	---	---	---	---
2 HP Blower Motor	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230V-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	---	---	---
	Blower Motor Full Load Amps	208/230V-60hz-3ph	7.5	7.5	7.5	---	---	---
		460V-60hz-3ph	3.4	3.4	3.4	---	---	---
		575V-60hz-3ph	2.7	2.7	2.7	---	---	---
3 HP Blower Motor	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230V-60hz-3ph	---	20 / 14	20 / 14	20 / 14	20 / 14	---
		460V-60hz-3ph	---	15 / 6	15 / 6	15 / 6	15 / 6	---
		575V-60hz-3ph	---	15 / 5	15 / 5	15 / 5	15 / 5	---
	Blower Motor Full Load Amps	208/230V-60hz-3ph	---	10.6	10.6	10.6	10.6	---
		460V-60hz-3ph	---	4.8	4.8	4.8	4.8	---
		575V-60hz-3ph	---	3.9	3.9	3.9	3.9	---
5 HP Blower Motor	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230V-60hz-3ph	---	---	---	35 / 21	35 / 21	35 / 21
		460V-60hz-3ph	---	---	---	15 / 10	15 / 10	15 / 10
		575V-60hz-3ph	---	---	---	15 / 8	15 / 8	15 / 8
	Blower Motor Full Load Amps	208/230V-60hz-3ph	---	---	---	16.7	16.7	16.7
		460V-60hz-3ph	---	---	---	7.6	7.6	7.6
		575V-60hz-3ph	---	---	---	6.1	6.1	6.1
7.5 HP Blower Motor	Maximum Overcurrent Protection / Minimum Circuit Ampacity	208/230V-60hz-3ph	---	---	---	---	---	50 / 31
		460V-60hz-3ph	---	---	---	---	---	20 / 14
		575V-60hz-3ph	---	---	---	---	---	20 / 12
	Blower Motor Full Load Amps	208/230V-60hz-3ph	---	---	---	---	---	24.2
		460V-60hz-3ph	---	---	---	---	---	11
		575V-60hz-3ph	---	---	---	---	---	9

BLOWER DATA

ELA072-090 ACCESSORY AIR RESISTANCE

Air Volume (cfm)	Total Resistance - in. w.g.						
	Wet Coil		4-Inch Filters		Economizer	Electric Heat	Hot Water Coil
	072	090	MERV 8	MERV 13			
1600	0.05	0.07	0.00	0.03	0.02	0.00	0.08
1700	0.06	0.08	0.00	0.03	0.03	0.00	0.09
1800	0.06	0.09	0.00	0.03	0.03	0.00	0.10
1900	0.07	0.09	0.00	0.03	0.04	0.02	0.12
2000	0.07	0.10	0.00	0.03	0.04	0.02	0.13
2100	0.08	0.11	0.00	0.04	0.04	0.02	0.14
2200	0.08	0.11	0.00	0.04	0.05	0.02	0.15
2300	0.09	0.12	0.00	0.04	0.05	0.03	0.16
2400	0.10	0.13	0.00	0.05	0.05	0.03	0.17
2500	0.10	0.14	0.00	0.05	0.06	0.03	0.18
2600	0.11	0.15	0.00	0.06	0.06	0.03	0.19
2700	0.12	0.16	0.00	0.06	0.07	0.04	0.20
2800	0.12	0.17	0.00	0.07	0.07	0.04	0.21
2900	0.13	0.18	0.00	0.07	0.08	0.04	0.23
3000	0.14	0.19	0.00	0.08	0.08	0.05	0.24
3100	0.14	0.20	0.00	0.08	0.09	0.05	0.25
3200	0.15	0.21	0.00	0.09	0.09	0.05	0.27
3300	0.16	0.22	0.00	0.10	0.10	0.06	0.28
3400	0.17	0.23	0.00	0.10	0.10	0.06	0.29
3500	0.18	0.24	0.00	0.11	0.11	0.06	0.31
3600	0.18	0.25	0.00	0.12	0.12	0.06	0.32

ELA120-150 ACCESSORY AIR RESISTANCE

Air Volume (cfm)	Total Resistance - in. w.g.						
	Wet Coil		4-Inch Filters		Economizer	Electric Heat	Hot Water Coil
	120	150	MERV 8	MERV 13			
2200	0.07	0.07	0.00	0.01	0.03	0.03	0.15
2400	0.08	0.08	0.00	0.02	0.03	0.03	0.17
2600	0.09	0.09	0.00	0.02	0.03	0.04	0.20
2800	0.10	0.10	0.00	0.02	0.04	0.04	0.22
3000	0.11	0.11	0.00	0.03	0.04	0.05	0.24
3200	0.12	0.12	0.00	0.03	0.04	0.05	0.27
3400	0.14	0.14	0.00	0.03	0.05	0.06	0.29
3600	0.15	0.15	0.00	0.03	0.05	0.06	0.32
3800	0.16	0.16	0.00	0.04	0.05	0.06	0.35
4000	0.18	0.18	0.00	0.04	0.06	0.08	0.38
4200	0.19	0.19	0.00	0.05	0.06	0.08	0.41
4400	0.20	0.20	0.00	0.06	0.07	0.09	0.44
4600	0.22	0.22	0.00	0.07	0.07	0.09	0.47
4800	0.23	0.23	0.00	0.08	0.08	0.10	0.51
5000	0.25	0.25	0.00	0.10	0.08	0.10	0.54
5200	0.27	0.27	0.00	0.12	0.09	0.11	0.58
5400	0.28	0.28	0.00	0.14	0.09	0.11	0.61
5600	0.30	0.30	0.00	0.17	0.10	0.13	0.65
5800	0.32	0.32	0.00	0.20	0.10	0.13	0.69
6000	0.33	0.33	0.00	0.24	0.11	0.14	0.72

BLOWER DATA

ELA180-240 ACCESSORY AIR RESISTANCE

Air Volume (cfm)	Total Resistance - in. w.g.						
	Wet Coil		4-Inch Filters		Economizer	Electric Heat	Hot Water Coil
	180	240	MERV 8	MERV 13			
3250	0.07	0.06	0.00	0.01	0.02	0.04	0.16
3500	0.07	0.07	0.00	0.01	0.02	0.05	0.18
3750	0.08	0.08	0.00	0.02	0.03	0.06	0.20
4000	0.08	0.09	0.00	0.02	0.03	0.06	0.22
4250	0.09	0.09	0.00	0.02	0.03	0.07	0.23
4500	0.08	0.11	0.00	0.03	0.05	0.06	0.24
4750	0.09	0.12	0.00	0.03	0.06	0.08	0.26
5000	0.10	0.13	0.00	0.03	0.07	0.09	0.28
5250	0.11	0.14	0.00	0.04	0.07	0.09	0.31
5500	0.11	0.15	0.00	0.04	0.08	0.11	0.33
5750	0.12	0.16	0.00	0.04	0.08	0.11	0.35
6000	0.13	0.18	0.00	0.05	0.10	0.12	0.38
6250	0.14	0.19	0.00	0.05	0.11	0.14	0.40
6500	0.15	0.20	0.00	0.06	0.11	0.14	0.43
6750	0.16	0.21	0.00	0.06	0.12	0.15	0.46
7000	0.17	0.22	0.00	0.07	0.12	0.15	0.48
7250	0.18	0.24	0.00	0.07	0.13	0.17	0.51
7500	0.19	0.25	0.00	0.08	0.13	0.17	0.54
7750	0.19	0.26	0.00	0.09	0.14	0.18	0.57
8000	0.21	0.28	0.00	0.09	0.16	0.20	0.60
8250	0.22	0.29	0.00	0.10	0.16	0.20	0.63
8500	0.23	0.31	0.00	0.11	0.17	0.21	0.66
8750	0.24	0.32	0.00	0.12	0.17	0.21	0.69
9000	0.25	0.33	0.00	0.14	0.18	0.23	0.72
9250	0.26	0.35	0.00	0.15	0.19	0.24	0.76
9500	0.27	0.36	0.00	0.16	0.20	0.26	0.79
9750	0.28	0.38	0.00	0.18	0.22	0.27	0.82
10,000	0.29	0.40	0.00	0.19	0.23	0.29	0.86

OPTIONAL ELECTRIC HEAT DATA
ELA072

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
		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
		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	³ 2	208	18.8	64,100	73	75	80	80
		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				

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

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

³ May be used with two stage control (field provided).

OPTIONAL ELECTRIC HEAT DATA
ELA090

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	³ 2	208	18.8	64,100	75	79	80	80
	³ 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	³ 2	208	25	85,300	97	100	100	100
	³ 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				

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

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

³ May be used with two stage control (field provided).

OPTIONAL ELECTRIC HEAT DATA
ELA120

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
		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
		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	³ 2	208	18.8	64,100	75	79	80	80
		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	³ 2	208	25	85,300	97	100	100	100
		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				

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

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

³ May be used with two stage control (field provided).

OPTIONAL ELECTRIC HEAT DATA
ELA150

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
					40	47	40	50
10 kW	1	208	7.5	25,600	44	51	45	60
		220	8.4	28,700				
		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				
		550	8.4	28,700				
	1	575	9.2	31,400	17	20	20	20
		600	10	34,100				
15 kW	1	208	11.3	38400	59	66	60	60
		220	12.6	43,000				
		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				
		550	12.6	43,000				
	1	575	13.5	47,000	23	26	25	30
		600	15	51,200				
25 kW	³ 2	208	18.8	64,100	79	86	80	90
		220	21	71,700				
		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				
		550	21	71,700				
	1	575	23	78,300	35	38	35	40
		600	25	85,300				
35 kW	³ 2	208	25	85,300	100	108	100	110
		220	28	95,500				
		230	30.6	104,400	114	121	125	125
		240	33.3	113,700				
	1	440	28	95,500		57	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				

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

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

³ May be used with two stage control (field provided).

OPTIONAL ELECTRIC HEAT DATA
ELA180

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				

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

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

OPTIONAL ELECTRIC HEAT DATA
ELA240

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	
					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				

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

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

SPECIFICATIONS - HOT WATER COIL

General Data	Hot Water Coil Model No.	T2HWCL10LM1-	T2HWCL10N-1-
	Air Handler Model No.	ELA072 ELA090 ELA120 ELA150	ELA180 ELA240
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)																	
ELA072																		
ELA090	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
ELA120																		
ELA150																		
ELA180	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
ELA240																		

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)																	
ELA072																		
ELA090	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	
ELA120																		
ELA150																		
ELA180	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	
ELA240																		

HOT WATER COIL CAPACITIES

ELA072 | ELA150

Model No.	Air Flow (cfm)	Enter-ing Air Temp (°F)	200						210										
			20			30			40			20			30				
GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT		
072	40	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	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	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
	40	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	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
080	80	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
	40	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	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	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
	40	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
090	60	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	19.0	183.7	151	11.8	172.2	147	8.2	10.3	142	20.9	201.2	158	13.1	189.8	154	9.2	178.5	149
	40	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	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	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
095	40	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	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	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
	40	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	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
100	80	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
	40	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	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	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
	40	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
105	80	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
	40	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	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	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
	40	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

HOT WATER COIL CAPACITIES**ELA180 | ELA240**

Entering Water Temperature (°F)

Model No.	Air Flow (cfm)	Enter-ing Air Temp (°F)	Water Temperature Drop (°F)																									
			140				160				180																	
20			30			40			20			30																
GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT														
4800	40	27.8	275.7	93	17.1	253.8	88	11.6	230.7	84	34.6	340.8	105	21.6	319.9	101	15.1	298.2	97	41.6	405.9	118	26.3	385.7	114	18.6	364.9	110
	60	21.4	211.5	101	12.7	189.3	96	8.3	165.2	92	28.1	276.4	113	17.3	255.3	109	11.8	233.1	105	34.9	341.1	126	21.9	320.9	122	15.3	299.9	118
	80	14.9	147.5	109	8.4	124.2	104	4.9	97.8	99	21.6	212.4	121	12.9	191.0	117	8.5	167.7	113	28.3	276.8	134	17.5	256.5	130	12.0	235.0	126
	40	32.1	318.2	89	19.6	292.0	85	13.3	264.7	80	40.0	394.0	100	24.9	368.7	96	17.4	342.7	92	48.0	469.1	112	30.3	445.0	108	21.4	419.9	104
	60	24.6	243.8	98	14.6	217.4	94	9.5	188.9	89	32.4	319.2	109	19.9	293.9	105	13.6	267.6	101	40.4	394.4	121	25.2	370.0	117	17.6	345.0	113
	80	17.1	169.7	106	9.6	142.0	102	5.6	111.0	97	24.9	244.9	118	14.8	219.4	114	9.7	191.9	110	32.7	319.8	130	20.1	295.6	126	13.8	269.8	122
180	40	36.0	356.1	85	21.9	326.2	82	14.8	294.8	78	44.8	441.1	96	27.9	412.3	93	19.4	382.4	89	53.8	525.9	107	33.9	497.9	103	23.9	469.3	100
	60	27.5	272.6	95	16.3	242.2	91	10.6	209.9	87	36.3	357.3	106	22.2	328.5	102	15.1	298.2	98	45.2	441.8	117	28.2	414.0	113	19.6	385.2	109
	80	19.1	189.4	105	10.6	157.9	100	6.2	122.7	96	27.9	274.2	116	16.6	244.8	112	10.8	213.3	108	36.7	358.2	126	22.5	330.2	123	15.3	300.8	119
	40	33.4	331.2	87	20.4	303.9	84	13.9	275.1	79	41.7	410.1	99	26.0	383.9	95	18.1	356.5	91	50.0	488.7	110	31.6	463.1	106	22.3	437.0	103
	60	25.6	253.7	97	15.2	226.0	93	9.9	196.3	88	33.8	332.3	108	20.7	306.0	104	14.1	278.2	100	42.0	410.6	119	26.3	385.3	116	18.3	358.8	112
	80	17.8	176.4	106	9.9	147.6	102	5.8	115.0	97	25.9	254.9	117	15.4	228.2	113	10.1	199.4	109	34.1	333.0	129	21.0	307.5	125	14.3	280.5	121
6400	40	38.3	379.4	84	23.3	347.0	80	15.8	313.2	76	47.8	470.4	94	29.7	439.0	90	20.6	406.9	87	57.4	560.8	104	36.1	530.5	101	25.5	499.5	97
	60	29.3	290.3	94	17.3	257.6	90	11.2	222.6	86	38.7	380.9	104	23.6	349.6	100	16.1	317.0	97	48.2	471.0	114	30.0	440.6	111	20.9	409.7	107
	80	20.3	201.4	103	11.3	167.6	100	6.5	129.8	95	29.7	291.8	114	17.6	260.2	110	11.5	226.5	106	39.1	381.9	125	23.9	351.5	121	16.3	319.9	117
	40	42.6	422.1	80	25.9	385.2	77	17.5	346.7	73	53.2	523.6	90	33.0	488.0	87	22.9	451.3	83	64.0	624.7	100	40.2	590.2	96	28.3	554.8	93
	60	32.6	322.8	91	19.2	285.3	87	12.4	246.0	84	43.1	423.9	101	26.3	388.2	97	17.8	351.1	94	53.7	524.7	111	33.4	490.2	107	23.2	454.7	104
	80	22.6	223.5	102	12.5	185.2	98	7.2	142.6	94	33.0	324.5	112	19.5	288.5	108	12.7	250.3	104	43.5	425.1	121	26.6	390.5	118	18.1	354.5	114

HOT WATER COIL CAPACITIES

ELA180 | ELA240

Model No.	Air Flow (cfm)	Enter-ing Air Temp (°F)	200			210			20			30			40					
			GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT	GPM	MBh	LAT			
180	40	48.6	470.3	130	311.0	450.7	126	22.4	428.6	123	52.1	502.7	136	33.3	483.3	132	24.0	460.6	128	
	60	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	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	
	40	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	60	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	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	
240	40	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	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	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	
	40	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	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	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	
300	40	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	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	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	
	40	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	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	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	409	186	438	199
090	431	196	460	209
120	495	225	528	240
150	509	231	542	246
180	727	330	769	349
240	799	363	841	382

OPTIONS / ACCESSORIES

	Net		Shipping	
	lbs.	kg	lbs.	kg

ELECTRIC HEAT

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

ECONOMIZER

Standard Economizers	A2ECON31L-1	71	32	165	75
	A2ECON31M-1	114	52	265	120
	A2ECON31N-1	160	73	370	168
High Performance Economizers	A2ECON34L-1	108	49	202	92
	A2ECON34M-1	144	65	295	134
	A2ECON34N-1	188	85	398	181

4-INCH FILTER MOUNTING KIT

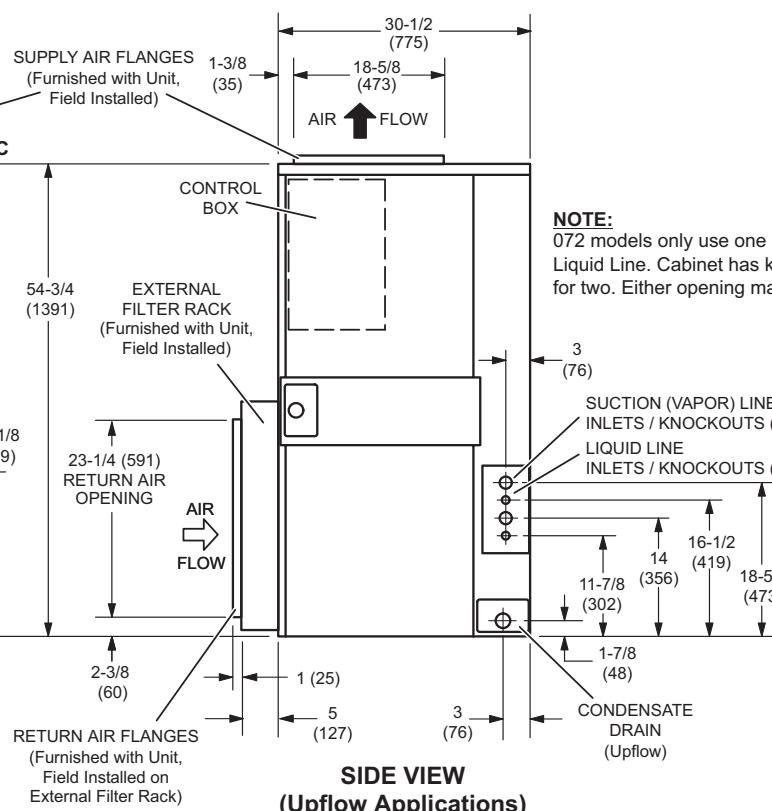
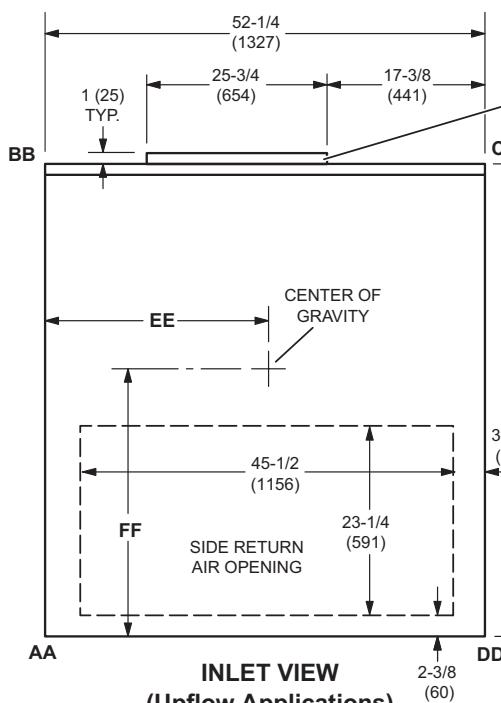
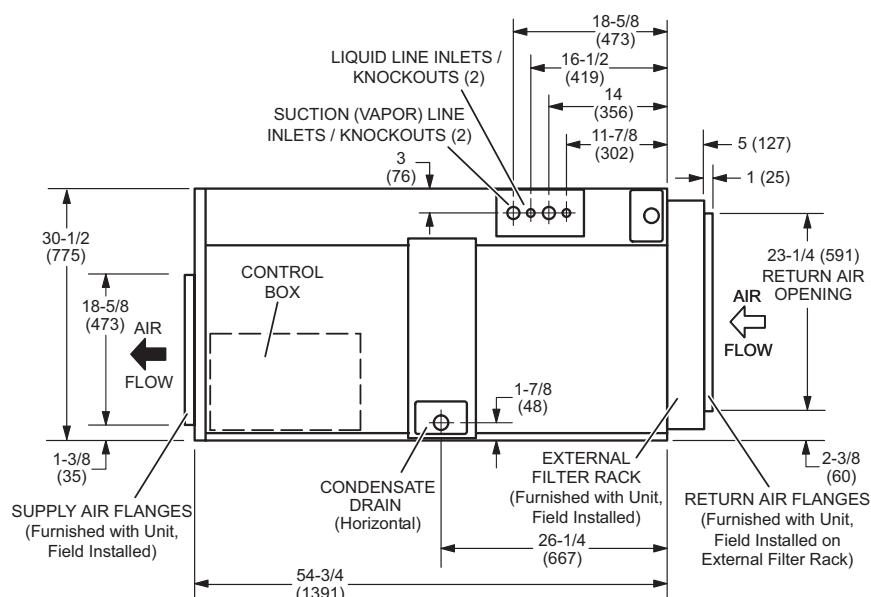
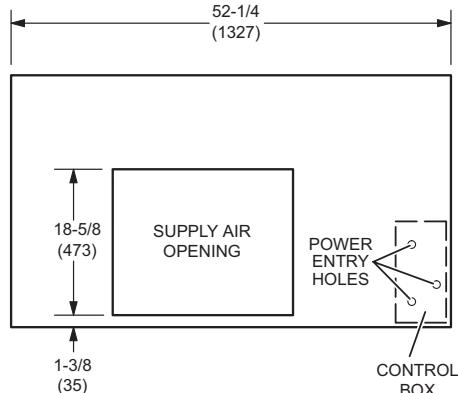
	A2FLTR70L-1-	7	3	10	5
	A2FLTR70M-1-	10	5	14	6
	A2FLTR70N-1-	15	7	20	9

HOT WATER COIL

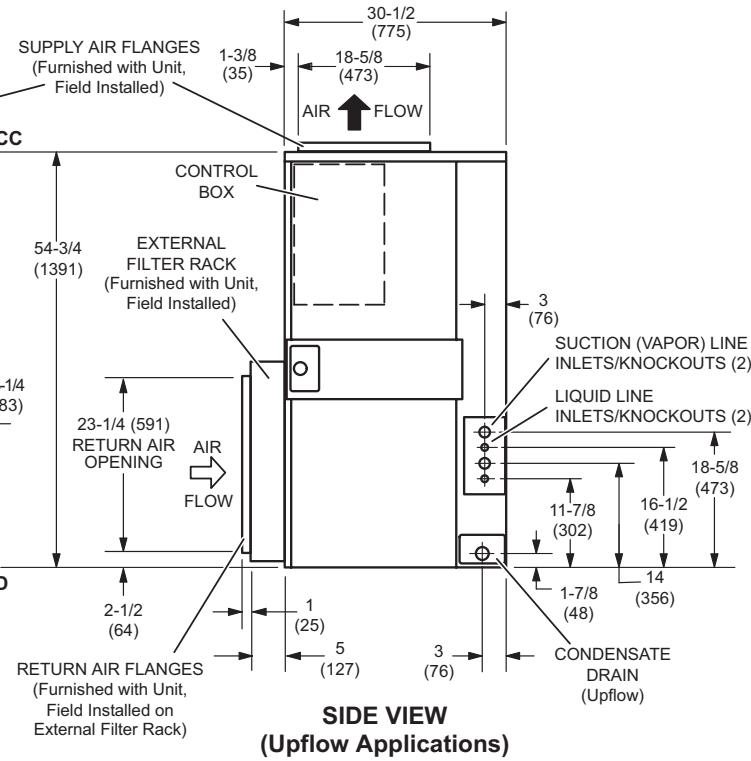
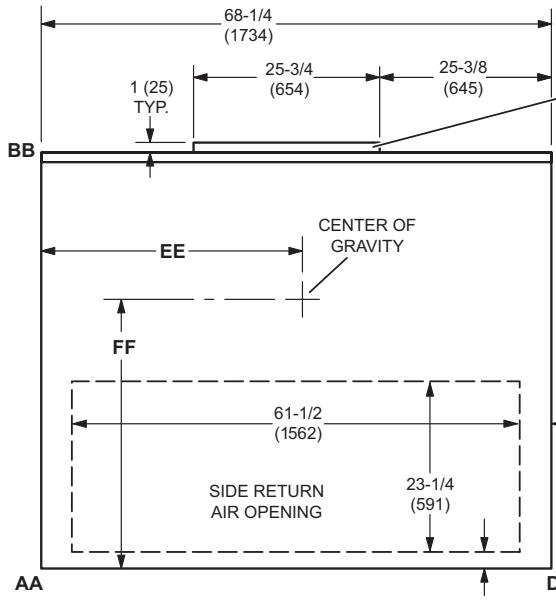
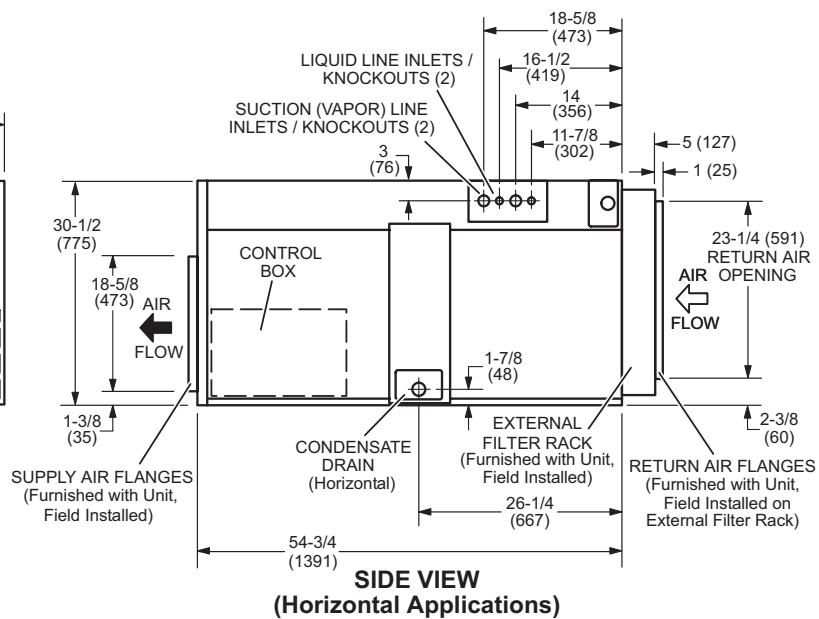
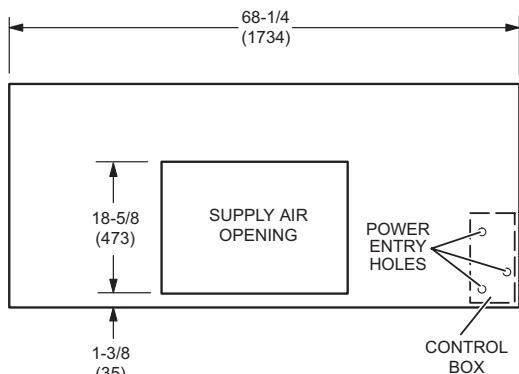
	T2HWCL10LM1-	65	29	80	36
	T2HWCL10N-1-	80	36	100	45

DIMENSIONS - UNIT

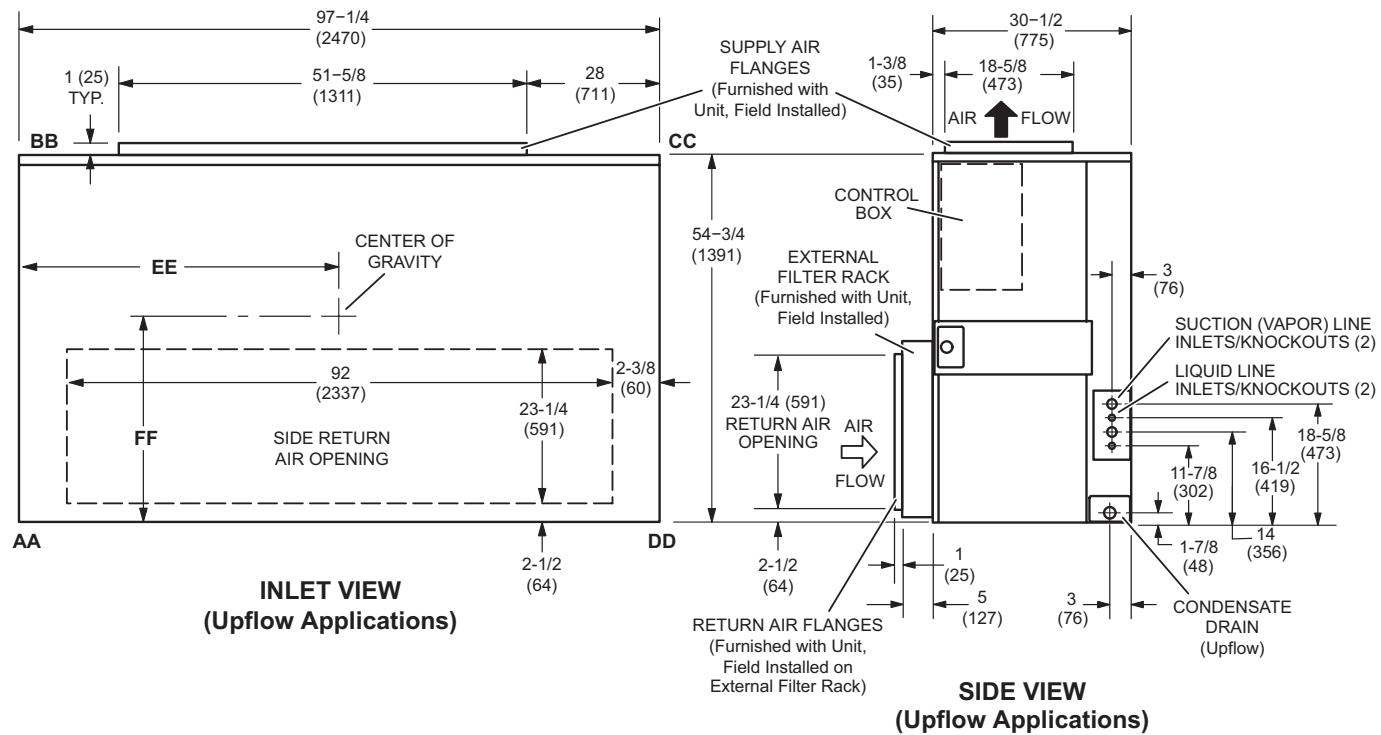
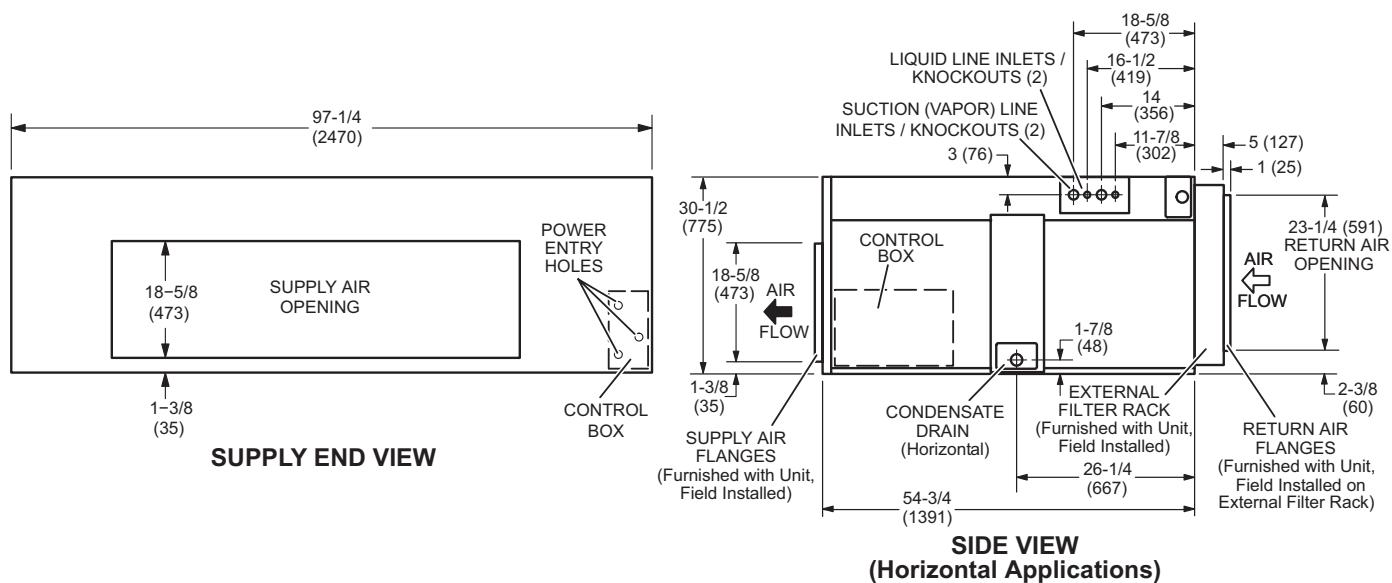
ELA072 | ELA090



Model No.	CORNER WEIGHTS						CENTER OF GRAVITY					
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
ELA072	102	46	102	46	102	46	102	46	26	660	27.5	699
ELA090	108	49	108	49	108	49	108	49	26	660	27.5	699



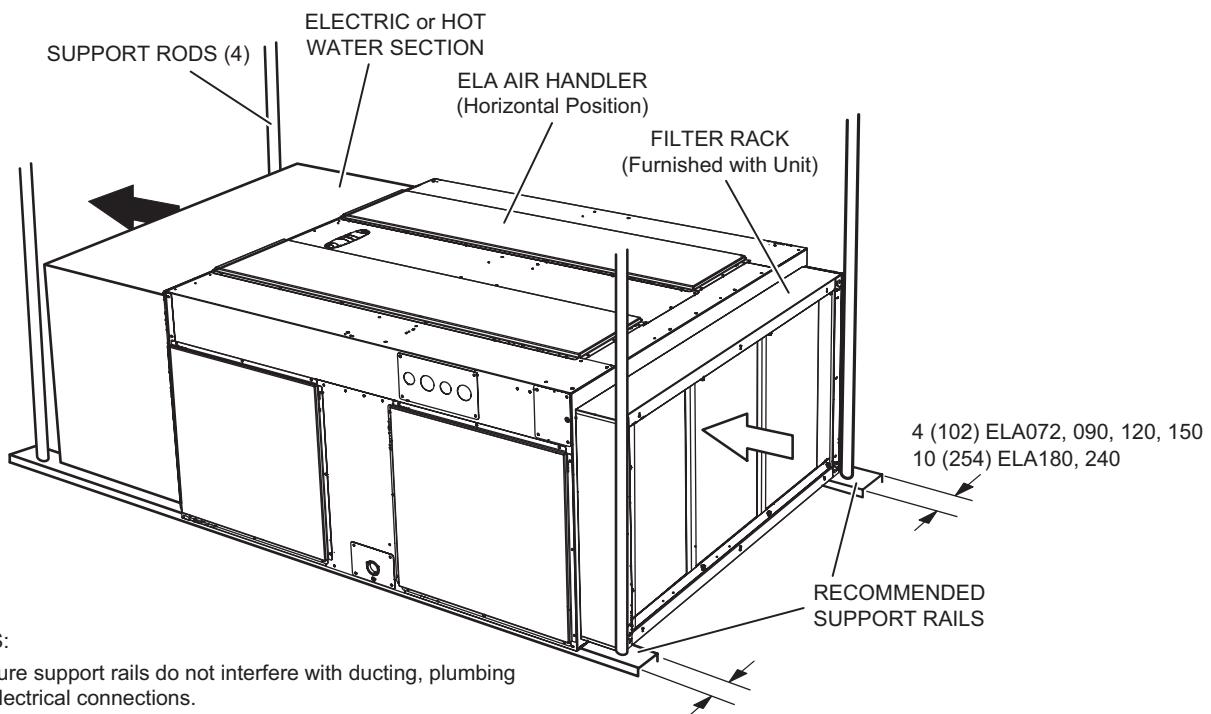
Model No.	CORNER WEIGHTS								CENTER OF GRAVITY					
	AA		BB		CC		DD		EE		FF			
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm		
ELA120	126	57	121	55	121	55	126	57	34	864	26	660		
ELA150	130	59	125	57	125	57	130	59	34	864	26	660		

DIMENSIONS - UNIT
ELA180 | ELA240


Model No.	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
ELA180	176	80	176	80	187	85	187	85	50.5	1283	27.5	699
ELA240	189	86	189	86	211	96	211	96	52	1321	27.5	699

DIMENSIONS

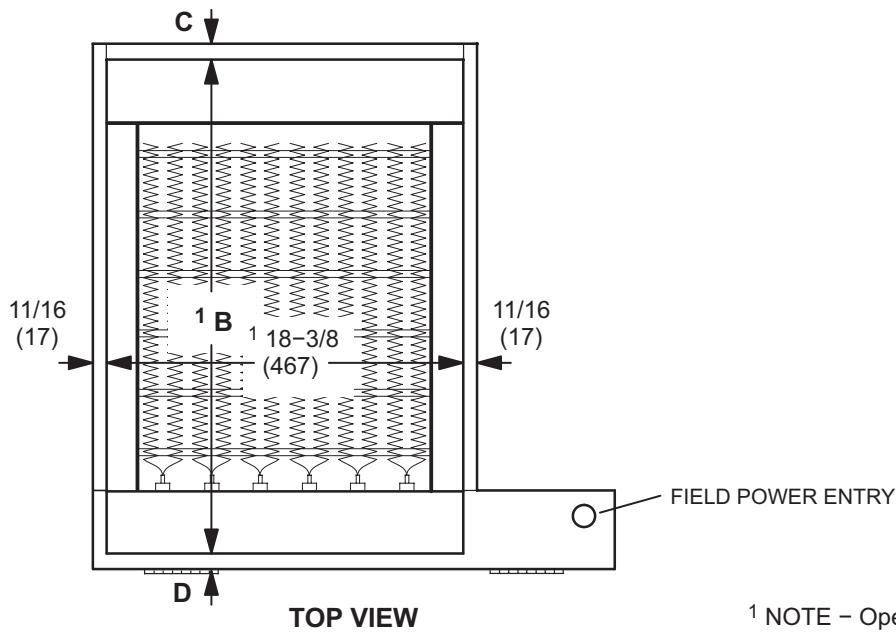
TYPICAL SUPPORT METHOD FOR AIR HANDLER WITH HEAT SECTION IN HORIZONTAL POSITION



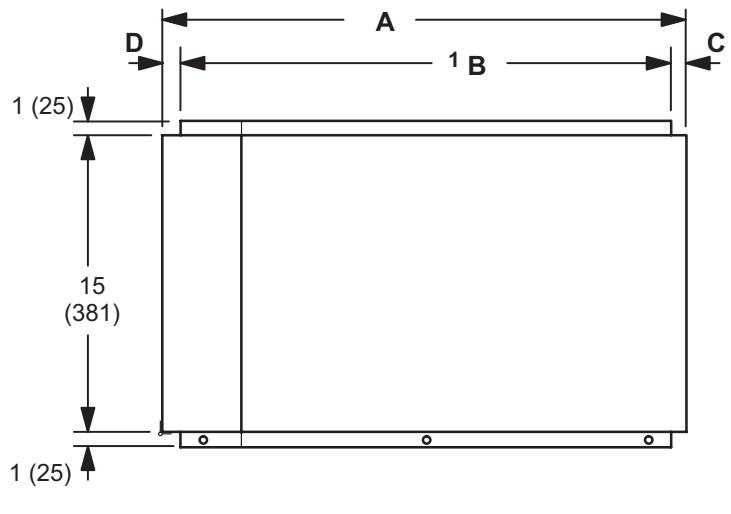
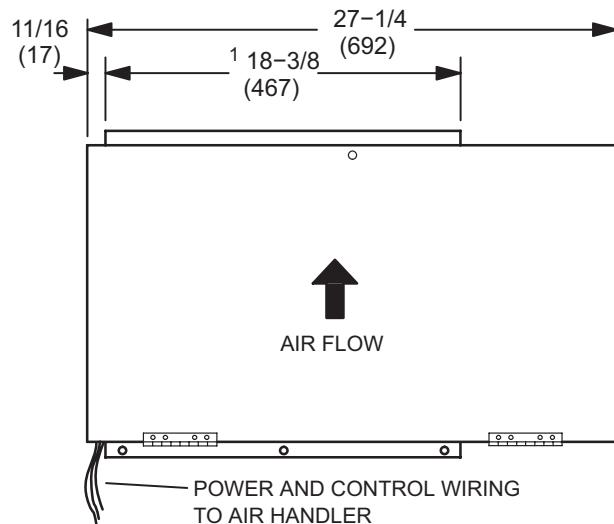
NOTES:

1. Ensure support rails do not interfere with ducting, plumbing or electrical connections.
2. Ensure support rods do not interfere with filter access or duct connections.
3. When hot water or electric heat section is installed, additional support underneath these accessories will be required.
4. Support rods and rails are field supplied.

4 (102) ELA072, 090, 120, 150
10 (254) ELA180, 240



¹ NOTE – Openings same size top and bottom.

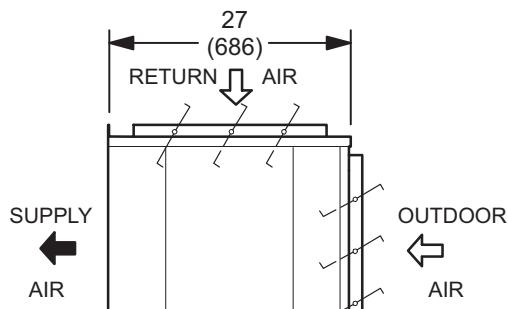


Air Handler Usage	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
ELA072 Thru ELA150	27-1/8	689	25-1/2	648	13/16	21	13/16	21
ELA180 Thru ELA240	56-3/4	1441	51-1/4	1302	1-1/2	38	4	102

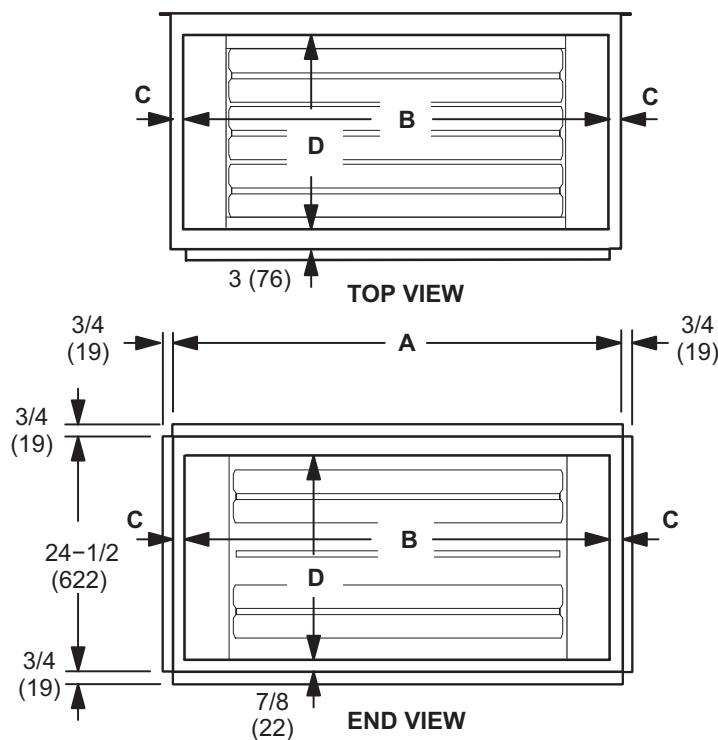
DIMENSIONS - ACCESSORIES

ECONOMIZER

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



SIDE VIEW



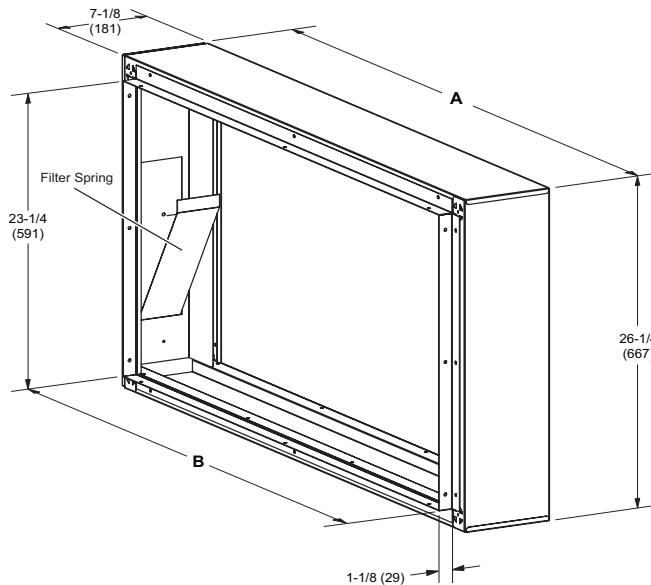
TOP VIEW

END VIEW

Model No. (Air Handler Usage)	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
Standard Economizers	32	813	30	762	1	25	20-1/2	521
	51-1/2	1308	45	1143	3-1/4	83	20-1/2	521
	72	1829	60	1524	6	152	20-1/2	521
High Performance Economizers	32	813	30	762	1	25	20-1/4	514
	51-1/2	1308	45	1143	3-1/4	83	20-1/4	514
	72	1829	60	1524	6	152	20-1/4	514

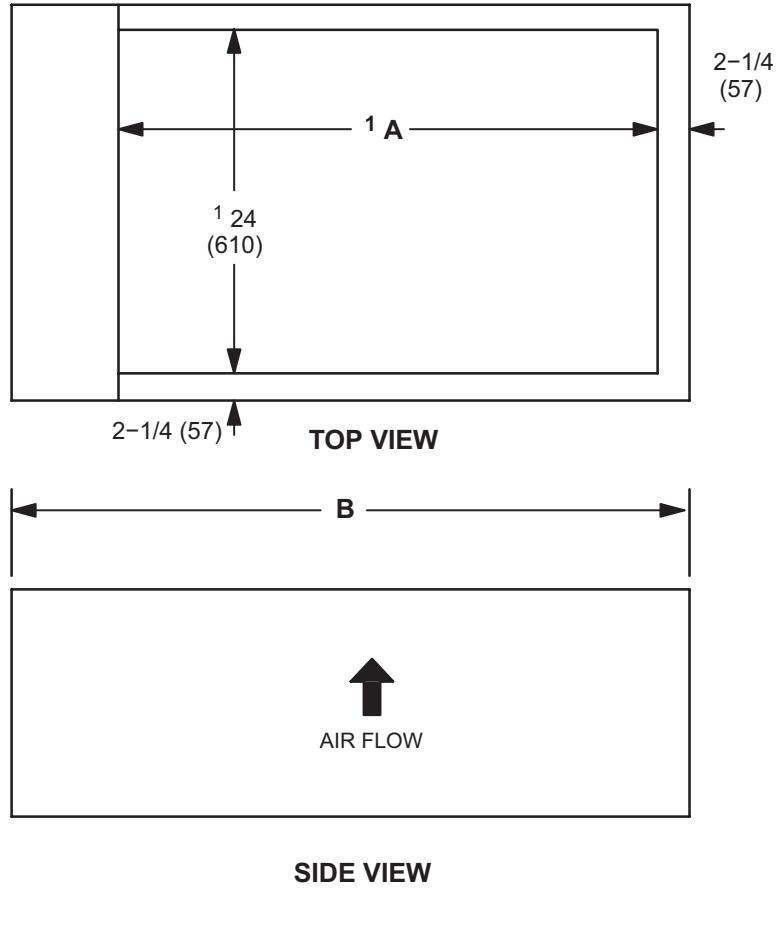
DIMENSIONS - ACCESSORIES

4-INCH FILTER KIT



Model No.	A		B	
	in.	mm	in.	mm
ELA072, and ELA090	49-5/8	1260	45-1/2	1156
ELA120 and ELA150	65-5/8	1667	61-3/8	1559
ELA180 and ELA240	96-1/8	2442	91-7/8	2334

¹ NOTE – Openings same size top and bottom.

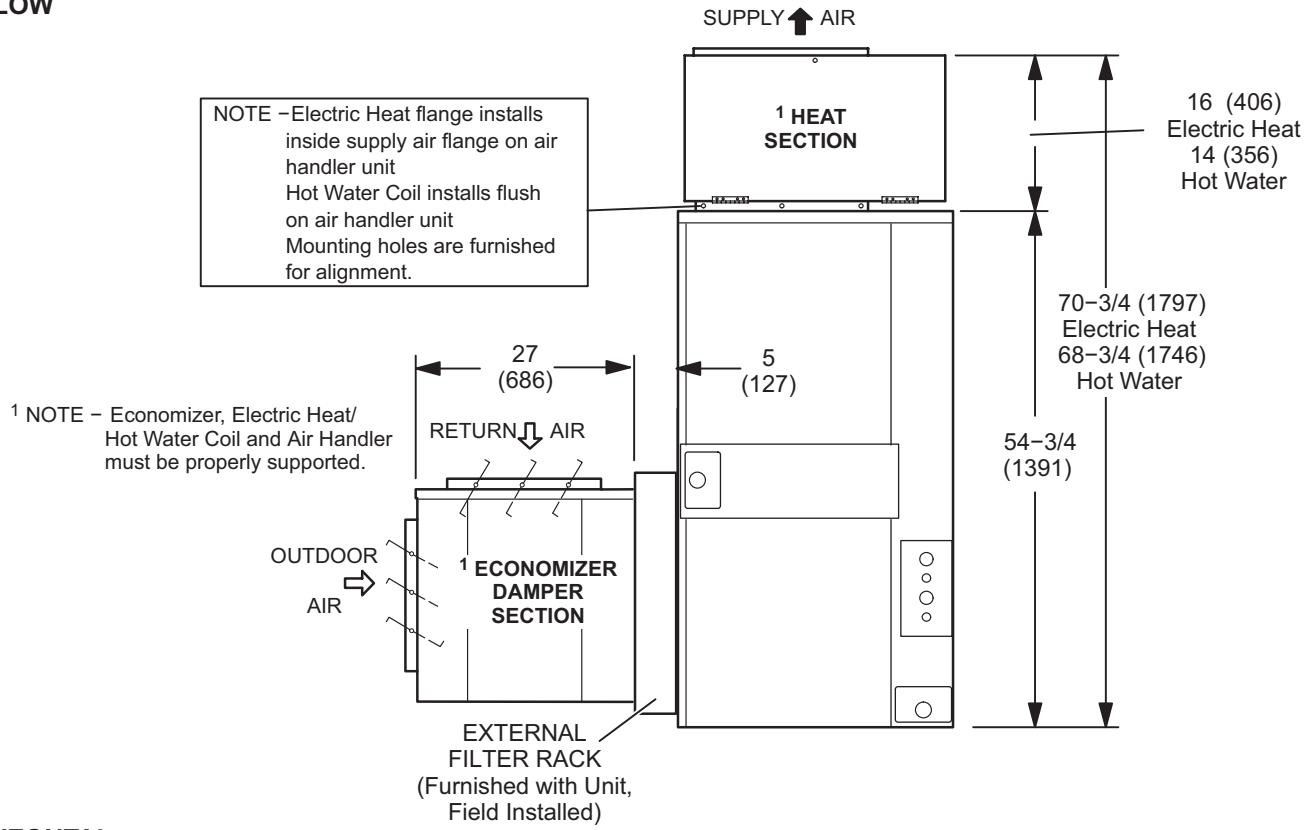


Air Handler Usage	A		B	
	in.	mm	in.	mm
ELA072 Thru ELA150	36	914	48	1219
ELA180 Thru ELA240	54	1372	66	1676

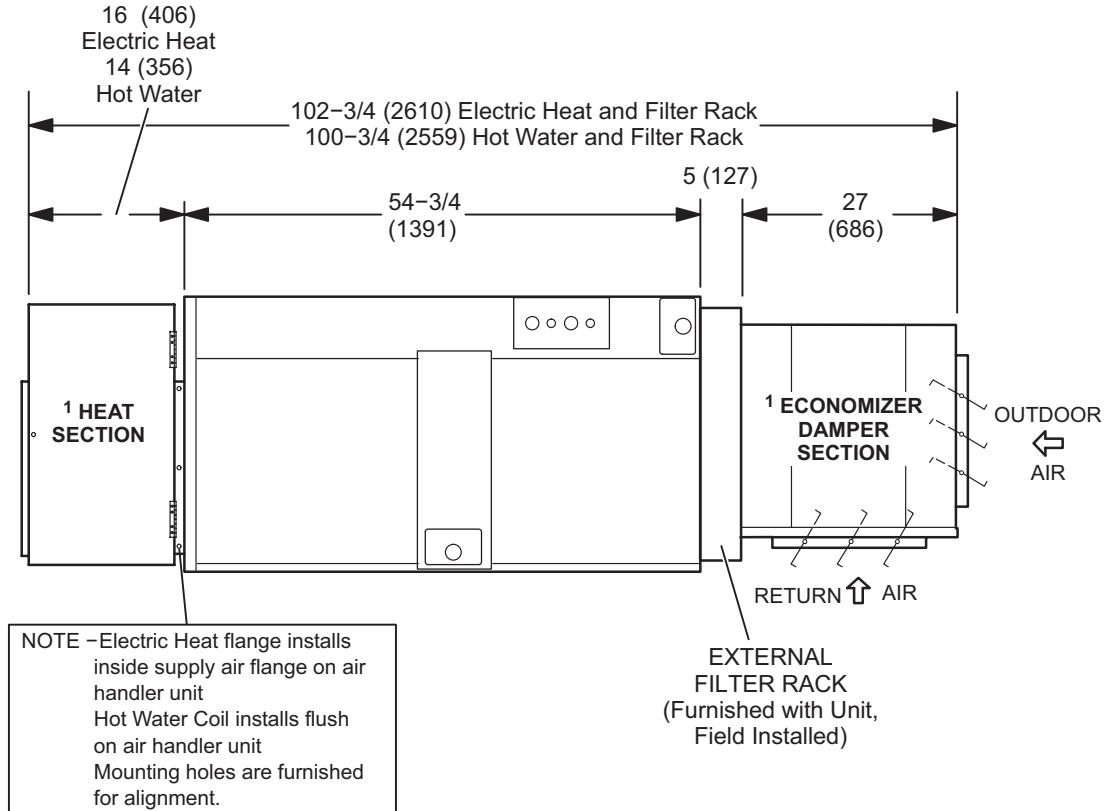
DIMENSIONS - ACCESSORIES

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

UPFLOW



HORIZONTAL



REVISIONS

Sections	Description of Change
Optional Accessories	Single Enthalpy Control (Standard Economizer) Catalog Number updated.



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