

## LCA/LGA/LHA

**180, 210, 240 & 300S Models**

**LCA/LGA 15-25 Ton Cooling Capacity**

**LHA 15 & 20 Ton Cooling Capacity**

**260,000-470,000 Btuh Gas Input Heating Cap.**

**188,000-220,000 Heat Pump Heating Cap.**

**38,600-307,100 Btuh Optional Electric Heat**



### FEATURES

- ◆ Down flow or horizontal supply and return air configuration
- ◆ E.T.L. and C.G.A. listed, efficiency rating verified by C.S.A., components bonded for grounding to meet safety standards for servicing required by ETL/CGA (LGA), UL/CSA (LCA/LHA), and National and Canadian Electrical Codes.
- ◆ ARI Standard 340/360-93 certified
- ◆ Bottom power entry for electric and gas
- ◆ Heavy gauge galvanized steel cabinet, fully insulated, powdered enamel paint finish, large removable access panels, electrical inlets in cabinet base and electric heat end panel (LCA/LHA only), easy access control area with factory installed controls, low voltage terminal strip, unit lifting holes in base rail
- ◆ Access panels hinged with tool-less access handles, gaskets on all edges for tight seal, filter and blower access panels have steel panel inner liner with insulation compressed in-between
- ◆ Coil constructed of ripple-edged enhanced aluminum fins on copper tubing, flared shoulder tubing connections, silver soldered construction, factory tested, indoor coil drain connection extends outside of unit cabinet
- ◆ Reciprocating type, resiliently mounted on rubber grommets (LCA/LHA/LGA 180-210-240 models)
- ◆ Copeland® Compliant Scroll® compressor for high efficiency, resiliently mounted (LCA/LGA300 models)
- ◆ Integrated Modular Control (IMC) - solid state board contains all controls and control relays to operate unit
- ◆ Color coded and labeled wiring
- ◆ Tubular heat exchanger of aluminized steel, life cycle tested
- ◆ Aluminized steel inshot burners, direct spark ignition, electronic flame sensor, redundant automatic single or dual gas valve with manual shut-off, induced draft blower, flame rollout switch
- ◆ Outdoor coil fan - PVC coated fan guard furnished
- ◆ Outdoor coil fan motor-overload protected, permanently lubricated, equipped with ball bearings, shaft up, wire basket mount
- ◆ Supply Air Blower belt drive with ball bearings and adjustable pulley for speed change, forward curved blades, blower wheel statically and dynamically balanced, slides out for service
- ◆ Supply Air Motor - overload protected, equipped with ball bearings
- ◆ 70VA transformer with built-in circuit breaker
- ◆ Disposable 2" pleated filters furnished
- ◆ Refrigeration system consists of compressors, condenser coil and direct drive fan, evaporator and belt drive blower, expansion valve with replaceable thermostatic element, high capacity drier, high pressure switch, low pressure switch, full refrigerant charge, crank-case heater, freezestat (prevent coil freeze-up during low ambient operation or loss of air), reversing valve and defrost control (LHA model)
- ◆ 1 Year warranty on parts
- ◆ 5 Year warranty on compressor
- ◆ 10 Year warranty on heat exchanger

## Model Number Guide

L	G	-	A	-	300	-	S	-	1	Y
Unit Type L = Commercial Package Unit										Voltage Y = 208/230v-3 phase-60hz G = 460v-3 phase-60hz J = 575v-3 phase-60hz
G = Cooling w/Gas Heat C = Cooling Only (w/opt Electric Heat) H - Heat Pump										Minor Revision Number
Major Design Sequence										Heat Type (S or H)
Cooling Capacity Tons (kW) 300 - 25 (87.9)										Cooling Efficiency S = Standard Efficiency

## Required Options - Items Must be Ordered and Factory Installed

**Air Flow Configuration** - specify horizontal or down-flow when ordering base unit

**Drive Kit** - Order one, see Drive Kit Specifications Table

**Supply Air Motor** - see Blow Data Table

**Gas Input** (LGA Models) - Order one:

169,000/260,000 Btuh (49.5/76.2 kW) low/high fire - Standard Heat Gas Input

305,000/470,000 Btuh (89.4/137.7 kW) low/high fire - High Heat Gas Input

**Voltage** - specify when ordering base unit

## Optional Accessories - Items Must be Ordered and Factory Installed

Item	LCA/LGA/- LHA180	LCA/ LGA210	LCA/LGA/- LHA240	LCA/ LGA300
<b>Disconnect Switch</b> - Accessible from outside of unit, spring loaded weatherproof cover furnished.				Factory
<b>Service Outlets</b> (2) - 115v ground fault circuit interrupter (GFCI) type				Factory

<sup>1</sup>Not available with 90 kW electric heat

## Optional Accessories Field Installed

Item	LCA/LGA LHA180	LCA/ LGA210	LCA/LGA /LHA240	LCA/ LGA300
<b>Blower Proving Switch</b> - Monitors blower operation, shuts down unit if blower fails		<b>18L89</b>		
<b>Dirty Filter Switch</b> - Senses static pressure increase indicating a dirty filter condition		<b>30K48</b>		
<b>Down-Flow Gravity Exhaust Dampers</b> - Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished - Net weight		LAGED18/24 - 30 lbs. (14 kg) <b>(16K98)</b>		
<b>Down-Flow Gravity Exhaust Dampers Hood</b>		LAGEH18/30S <b>(88K80)</b>		
<b>Economizer</b> - Opposing gear driven recirculated air and outdoor air dampers, plug-in connections to unit, nylon bearings, neoprene seals, 24 volt fully modulating spring return motor, adjustable minimum damper position, damper assembly slides in unit. <b>NOTE:</b> Outdoor air hood must be ordered separately (see below), optional down-flow gravity exhaust dampers available (see above), choice of economizer controls (see below)		LAREMD18/24 - 180 lbs. (82 kg) <b>(16K95)</b>		
<b>Economizer Control Choice</b> -				
<b>Sensible Control</b> - Furnished on IMC board in unit, uses outdoor air sensor furnished with unit to measure outdoor air temperature and control damper position (Furnished)				
<b>Global Control</b> - Furnished on IMC board in unit, used with Direct Digital Control (DDC) systems, uses global air sensor to control damper position, determines when to use outdoor air for cooling or set damper at minimum position. (Furnished)			<b>(16K96)</b> Outdoor <b>(16K97)</b> Differential	
<b>Outdoor Enthalpy Control</b> - Adjustable enthalpy sensor, senses outdoor air enthalpy for economizer control, 0 to 100% outdoor air				
<b>Differential Enthalpy Control</b> - Two solid-state enthalpy sensors allow selection between outdoor air and return air (whichever has lowest enthalpy)				
<b>Horizontal Gravity Exhaust Dampers</b> - Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, field installed in return air duct, bird screen furnished - Net Weight		LAGEDH18/24 - 20 lbs. (9 kg) <b>(16K99)</b>		
<b>Outdoor Air Damper Section</b> - mechanical dampers, 0 to 25% outdoor air, installs in unit cabinet. <b>NOTE:</b> Outdoor air hood must be ordered separately (see below) - Net Weight	<b>Automatic Operation</b> - Gear driven, adjustable outdoor air, fully modulating spring return damper motor, plug-in connection	LAOADM18/24 - 155 lbs. (70 kg) <b>(16K94)</b>		
	<b>Manual Operation</b> - Linked dampers, adjustable fixed position outdoor air	LAOAD18/24 - 150 lbs. (68 kg) <b>(16K93)</b>		
<b>Outdoor Air Hood</b> - Required with LAREMD18/24 Economizer, LAOAD18/24 and LAOADM18/24 Outdoor Air Damper Sections, three cleanable aluminum mesh fresh air filters furnished - Net Weight		LAOAH18/24 - 60 lbs. (27 kg) filter size: (3) 16 x 25 x 1 in. (406 x 635 x 25 mm) <b>(19K37)</b>		
<b>Power Exhaust Fan</b> - Installs external to unit for down-flow applications only with economizer option, provides exhaust air pressure relief, interlocked to run when return air dampers are closed and supply air blower is operating, fan runs when outdoor air dampers are 50% open (adjustable), motor is overload protected, steel cabinet and hood painted to match unit <b>NOTE:</b> Requires optional down-flow gravity exhaust dampers	Model Number - Net Weight	LAPEF18/24 - 140 lbs. (64 kg) 208/230v <b>(16K89)</b> 460v <b>(19K03)</b> - 575v <b>(19K04)</b>		
	Dia. - in. (mm) No. Blades	(2) 20 (508) - 5		
	Total air volume - cfm (L/s)	8630 (4070) @ 0 in. wg (0 PA)		
	Motor Horsepower (W)	(2) 1/3 (249)		
	Total Watts Input	750		
<b>Smoke Detector</b> - Photoelectric type, installed in supply air section or return air section or both sections	<b>Supply</b>	<b>16M24</b>		
	<b>Return</b>	<b>16M23</b>		
<b>Electric Heat (EHA)</b> - helix wound nichrome elements, time delay for element staging, individual element limit controls (45, 60, 90 and 120 kW), may be two-stage controlled, wiring harness furnished, requires Electric Heat Control Module, Fuse Block and Terminal Block (LCA Models Only)		See Electric Heat Data Tables		
<b>Electric Heat Control Module</b> - Required with 45, 60 and 90 kW electric heaters, provides control of second stage heating				LCA Models Only See Optional Electric Heat Accessories Table
<b>Electric Heat Fuse Block</b> - Required with electric heat, mounting screws furnished				
<b>Electric Heat LTB2 Terminal Block</b> - Required with electric heat				

## Optional Accessories

Item	LCA/LGA/ LHA180	LCA/ LGA210	LCA/LGA/ LHA240	LCA/ LGA300			
<b>Diffusers</b> - Aluminum grilles, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), adapts to T-bar ceiling grids or plaster ceilings - Net Weight	<b>Step-Down</b> - double deflection louvers RTD11-185 392 lbs. (178 kg) <b>(29G06)</b>	RTD11-275 - 403 lbs. (183 kg) <b>(29G07)</b>	FD11-185 289 lbs. (135 kg) <b>(29G10)</b>	FD11-275 - 363 lbs. (165 kg) <b>(29G11)</b>			
	<b>Flush</b> - fixed blade louvers	LASRT18 80 lbs. (36 kg) <b>(19K01)</b>					
<b>Transitions (Supply and Return)</b> - Used with diffusers, installs in roof mounting frame, galvanized steel construction, flanges furnished for duct connection, fully insulated		LASRT18 80 lbs. (36 kg) <b>(19K01)</b>	LASRT21/24 - 75 lbs. (34 kg) <b>(19K02)</b>				
<b>Grille Guards</b> - Protects the space between outdoor coils and main cabinet.	<b>72K78</b>						
<b>Coil Guards</b> - Galvanized steel wire guards to protect outdoor coil. Not used with Hail Guards.	<b>88K52</b>						
<b>Hail Guards</b> - Constructed of heavy gauge steel, painted to match cabinet, helps protect outdoor coils from hail damage. Not used with Coil Guards.	<b>88K25</b> - LCA/LGA Models <b>88K28</b> - LHA Models						
<b>Aspiration box</b> - for duct mounting of Indoor Air Quality Sensor	<b>47N18</b>						
<b>Indoor Air Quality (CO2) Sensor</b> - Monitors CO2 levels, reports to integrated Modular Control (IMC) board which adjusts economizer dampers as needed	<b>93J69</b>						
<b>LPG/Propane Kits</b>	<b>41L15</b> (2 kits required)						
<b>Roof Mounting Frame</b> - Nailer strip furnished, mates to unit, U.S. National Roofing Contractors Approved, shipped knocked down - Net Weight	14 inch (356 mm) height	LARMF18/36-14 - 160 lbs. (73 kg) <b>(16K87)</b>					
	24 inch (610 mm) height	LARMF18/36-24 - 220 lbs. (100 kg) <b>(16K88)</b>					
<b>Roof Mounting Frame (Horizontal)</b> - Nailer strip furnished, mates to unit, converts unit from down-flow to horizontal (side) air flow, shipped knocked down, return air is on unit, supply air is on frame, see dimension drawings. Frames for rooftop applications meet National Roofing Code requirements. Requires Horizontal Return Air Panel, see above - Net Weight	26 in. (660 mm) height (for slab applications)	¹LARMFH18/24-26 - 420 lbs. (191 kg) <b>(97J33)</b>					
	30 in. (762 mm) height (for slab applications)	—		¹LARMFH30/36-30 445 lbs. (202 kg) <b>(33K79)</b>			
	37 in. (940 mm) height (for rooftop applications)	¹LARMFH18/24-37 - 580 lbs. (263 kg) <b>(38K53)</b>					
	41 in. (1041 mm) height (for rooftop applications)	—		¹LARMFH30/36-41 725 lbs. (329 kg) <b>(38K54)</b>			
	26 inch (660 mm) frames	<b>73K32</b>					
<b>Roof Mounting Frame (Horizontal)</b> <b>Insulation Kit</b> - helps prevent sweating on horizontal roof mounting frames	30 inch (762 mm) frames	—		<b>73K33</b>			
	37 inch (940 mm) frames	<b>73K34</b>					
	41 inch (1041 mm) frames	—		<b>73K35</b>			
	<b>38K47</b>						
<b>Horizontal Return Air Panel Kit</b> - Required for horizontal applications with horizontal roof mounting frame, contains panel with return air opening for field replacement of existing unit panel and panel to cover bottom return air opening in unit, see dimension drawings							
<b>Vertical Vent Extension Kit</b> - to exhaust flue gases vertically above unit (LGA Models Only)	<b>(40L80)</b> (2 Required)						

<sup>1</sup>Either LARMFH30/36-30(-41) or LARMFH18/24-26(-37) roof mounting frames may be used for the 300 models, however, the smaller frames (LARMF18/24) will increase static pressure.

## Specifications

Model No.		LCA/LGA180S	
Cooling Ratings	Gross Cooling Capacity - Btuh (kW)	186,000 (54.5)	
	*Net Cooling Capacity - Btuh (kW)	180,000 (52.7)	
	Total Unit Power (kW)	19.6	
	*EER (Btuh/Watt)	9.2	
	*Integrated Part Load Value (Btuh/Watt)	10.5	
Refrigerant Charge Furnished (HCFC-22)	Circuit 1	9 lbs. 0 oz. (4.08 kg)	
	Circuit 2	9 lbs. 0 oz. (4.08 kg)	
	Circuit 3	9 lbs. 0 oz. (4.08 kg)	
Two Stage Heating Capacity (Natural or LPG/Propane Gas at Sea Level)	Model No.	LGA180	
	Heat Input Type	Standard (S)	High (H)
	Input (Low) - Btuh (kW)	169,000 (49.5)	305,000 (89.4)
	Output (Low) - Btuh (kW)	135,000 (39.6)	244,000 (71.5)
	Input (High) - Btuh (kW)	260,000 (76.2)	470,000 (137.7)
	Output (High) - Btuh (kW)	208,000 (60.9)	376,000 (110.2)
A.G.A./C.G.A. Thermal Efficiency		80.0%	
Gas Supply Connections npt - in. Natural or LPG/Propane		1	
Recommended Gas Supply Pressure - wc. in. (kPa)	Natural	7 (1.7)	
	LPG/Propane	11 (2.7)	
Evaporator Blower and Drive Selection	Blower wheel nominal dia. x width - in. (mm)	(2) 15 X 15 (381 X 381)	
	3 hp (2.2 kW) 1Motor & Drives	Nominal motor output - hp (kW)	3 (2.2)
		Max. usable motor output - hp (kW)	3.45 (2.6)
		Voltage & phase	208/230v, 460v or 575v - 3 ph
		(Drive kit #) RPM range	(A) 535-725 or (1) 685-865
	5 hp (3.7 kW) 1Motor & Drives	Nominal motor horsepower (kW)	5 (3.7)
		Max. usable motor output - hp (kW)	5.75 (4.3)
		Voltage & phase	208/230v, 460v or 575v - 3 ph
		(Drive kit #) RPM range	(2) 685-865, (3) 850-1045 or (4) 945-1185
	7.5 hp (5.6 kW) 1Motor & Drives	Nominal motor output - hp (kW)	7.5 (5.6)
Evaporator Coil		Max. usable motor output - hp (kW)	8.63 (6.4)
		Voltage & phase	208/230v, 460v or 575v - 3 ph
		(Drive kit #) RPM range	(5) 945-1185, (6) 1045-1285, or (7) 850-1045
	Net face area - sq. ft. (m <sup>2</sup> )	22.3 (2.07) total	
	Tube diameter - in. (mm) & No. of rows	3/8 (9.5) - 3	
Condenser Coil	Fins per inch (m)	14 (551)	
	Drain connection no. & size - in. (mm) fpt	(1) 1 (25.4)	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
	Net face area - sq. ft. (m <sup>2</sup> )	56.5 (5.25) total	
Condenser Fans	Tube diameter - in. (mm) & No. of rows	3/8 (9.5) - 1	
	Fins per inch (m)	20 (787)	
	Diameter - in. (mm) & No. of blades	(4) 24 (610) - 3	
Filters (furnished)	Total air volume - cfm (L/s)	15,850 (7480)	
	Motor horsepower (W)	(4) 1/3 (249)	
	Motor rpm	1075	
	Total Motor watts	1370	
	Type of filter	Disposable, commercial grade, pleated	
Electrical characteristics	No. and size - in. (mm)	(6) 24 x 24 x 2 (610 x 610 x 51)	
		208/230v, 460v or 575v - 60 hertz - 3 phase	

<sup>1</sup>Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

\*Rated in accordance with ARI Standard 340/360 and certified to ARI; 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering evaporator air; minimum external duct static pressure. Integrated Part Load Value tested at 80°F (27°C) outdoor air temperature.

NOTE - ARI capacity is net and includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

## Specifications

Model No.		LCA/LGA210S	
Cooling Ratings	Gross Cooling Capacity - Btu (kW)	212,000 (62.1)	
	*Net Cooling Capacity - Btuh (kW)	204,000 (59.8)	
	Total Unit Power (kW)	22.7	
	*EER (Btuh/Watt)	9.0	
	*Integrated Part Load Value (Btuh/Watt)	10.0	
Refrigerant Charge Furnished (HCFC-22)	Circuit 1	7 lbs. 8 oz. (3.4 kg)	
	Circuit 2	7 lbs. 8 oz. (3.4 kg)	
	Circuit 3	7 lbs. 8 oz. (3.4 kg)	
	Circuit 4	7 lbs. 8 oz. (3.4 kg)	
Two Stage Heating Capacity (Natural or LPG/Propane Gas at Sea Level)	Heat Input Type	Standard (S)	High (H)
	Input (low) - Btuh (kW)	169,000 (49.5)	305,000 (89.4)
	Output (low) - Btuh (kW)	135,000 (39.6)	244,000 (71.5)
	Input (High) - Btuh (kW)	260,000 (76.2)	470,000 (137.7)
	Output (High) - Btuh (kW)	208,000 (60.9)	376,000 (110.2)
	A.G.A./C.G.A. Thermal Efficiency	80.0%	
Gas Supply Connections npt - in. Natural or LPG/Propane		1	
Recommended Gas Supply Pressure - wc. In. (kPa)	Natural	7 (1.7)	
	LPG/Propane	11 (2.7)	
Evaporator Blower and Drive Selection	Blower wheel nominal dia. x width - in. (mm)	(2) 15 X 15 (381 X 381)	
	Nominal motor output - hp (kW)	3 (2.2)	
	3 hp (2.2 kW)	3.45 (2.6)	
	1Motor & Drives	Voltage & phase	
		208/230v, 460v or 575v - 3 ph	
		(Drive kit #) RPM range	
		(A) 535-725 or (1) 685-865	
	Nominal motor horsepower (kW)	5 (3.7)	
	5 hp (3.7 kW)	5.75 (4.3)	
	1Motor & Drives	Voltage & phase	
		208/230v, 460v or 575v - 3 ph	
		(Drive kit #) RPM range	
Evaporator Coil	Nominal motor output - hp (kW)	7.5 (5.6)	
	7.5 hp (5.6 kW)	8.63 (6.4)	
	1Motor & Drives	Voltage & phase	
		208/230v, 460v or 575v - 3 ph	
		(Drive kit #) RPM range	
Condenser Coil	Nominal motor output - hp (kW)	22.3 (2.07) total	
	Net face area - sq. ft. (m <sup>2</sup> )	3/8 (9.5)	
	Tube diameter - in. (mm) & No. of rows	14 (551)	
	Fins per inch (m)	(1) 1 (25.4)	
	Drain connection no. & size - in. (mm) fpt	Balanced Port Thermostatic Expansion Valve, removable power head	
Condenser Fans	Net face area - sq. ft. (m <sup>2</sup> )	56.5 (5.25) total	
	Tube diameter - in. (mm) & No. of rows	3/8 (9.5)	
	Fins per inch (m)	20 (787)	
	Diameter - in. (mm) & No. of blades	(4) 24 (610) - 3	
Filters (furnished)	Total air volume - cfm (L/s)	15,850 (7480)	
	Motor horsepower (W)	(4) 1/3 (249)	
	Motor rpm	1075	
	Total Motor watts	1370	
Electrical characteristics	Type of filter	Disposable, commercial grade, pleated	
	No. and size - in. (mm)	(6) 24 x 24 x 2 (610 x 610 x 51)	
208/230v, 460v or 575v - 60 hertz - 3 phase			

<sup>1</sup>Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

\*Rated in accordance with ARI Standard 340/360 and certified to ARI; 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering evaporator air; minimum external duct static pressure. Integrated Part Load Value tested at 80°F (27°C) outdoor air temperature.

NOTE - ARI capacity is net and includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

## Specifications

Model No.		LCA/LGA240S	**LCA/LGA300S
Cooling Ratings	Gross Cooling Capacity - Btuh (kW)	248,000 (72.7)	301,600 (88.4)
	*Net Cooling Capacity - Btuh (kW)	238,000 (69.7)	**284,000 (83.3)
	Total Unit Power (kW)	26.4	31.5
	*EER (Btuh/Watt)	9.0	9.0
	*Integrated Part Load Value (Btuh/Watt)	10.0	9.5
Refrigerant Charge Furnished (HCFC-22)	Circuit 1	10 lbs. 0 oz. (4.54 kg)	11 lbs. 4 oz. (5.10 kg)
	Circuit 2	10 lbs. 0 oz. (4.54 kg)	11 lbs. 4 oz. (5.10 kg)
	Circuit 3	10 lbs. 0 oz. (4.54 kg)	11 lbs. 4 oz. (5.10 kg)
	Circuit 4	10 lbs. 0 oz. (4.54 kg)	11 lbs. 4 oz. (5.10 kg)
Two Stage Heating Capacity (Natural or LPG/Propane Gas at Sea Level)	Heat Input Type	Standard (S)      High (H)	Standard (S)      High (H)
	Input (low) - Btuh (kW)	169,000 (49.5)	169,000 (49.5)      305,000 (89.4)
	Output (low) - Btuh (kW)	135,000 (39.6)	135,000 (39.6)      244,000 (71.5)
	Input (High) - Btuh (kW)	260,000 (76.2)	260,000 (76.2)      470,000 (137.7)
	Output (High) - Btuh (kW)	208,000 (60.9)	208,000 (60.9)      376,000 (110.2)
A.G.A./C.G.A. Thermal Efficiency		80.0%	
Gas Supply Connections npt - in. Natural of LPG/Propane		1	
Recommended Gas Supply Pressure - wc. in. (kPa)	Natural	7 (1.7)	
	LPG/Propane	11 (2.7)	
Evaporator Blower and Drive Selection	Blower wheel nominal dia. x width - in. (mm)	(2) 15 X 15 (381 X 381)	
	Nominal motor output - hp (kW)	5 (3.7)	
	5 hp (3.7 kW) Motor & Drives	Max. usable motor output - hp (kW) 5.75 (4.3)	
	Voltage & phase (Drive kit #) RPM range	208/230v, 460v or 575v - 3 ph (2) 685-865, (3) 850-1045 or (4) 945-1185	
	7.5 hp (5.6 kW) Motor & Drives	Nominal motor output - hp (kW) 7.5 (5.6)	
	Max. usable motor output - hp (kW)	8.63 (6.4)	
	Voltage & phase (Drive kit #) RPM range	208/230v, 460v or 575v - 3 ph (5) 945-1185	
	10 hp (7.5 kW) Motor & Drives	Nominal motor horsepower (kW) 10 (7.5)	
	Max. usable motor output - hp (kW)	11.5 (8.6)	
	Voltage & phase (Drive kit #) RPM range	208/230v, 460v, or 575v - 3 ph (6) 1045-1285 or (8) 1135 - 1365	
Evaporator Coil	Net face area - sq. ft. (m <sup>2</sup> )	22.3 (2.07) total	
	Tube diameter - in. (mm) & No. of rows	3/8 (9.5) - 3	3/8 (9.5) - 4
	Fins per inch (m)	14 (551)	
	Drain connection no. & size - in. (mm) fpt	(1) 1 (25.4)	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
Condenser Coil	Net face area - sq. ft. (m <sup>2</sup> )	56.5 (5.25) total	
	Tube diameter - in. (mm) & No. of rows	3/8 (9.5) - 2	
	Fins per inch (m)	20 (787)	
Condenser Fans	Diameter - in. (mm) & No. of blades	(4) 24 (610) - 3	
	Total air volume - cfm (L/s)	15,450 (7290)	16,000 (7550)
	Motor horsepower (W)	(4) 1/3 (249)	(4) 1/2 (373)
	Motor rpm	1075	
	Total Motor watts	1395	1800
Filters (furnished)	Type of filter	Disposable, commercial grade, pleated	
	No. and size - in. (mm)	(6) 24 x 24 x 2 (610 x 610 x 51)	
Electrical characteristics		208/230v, 460v or 575v - 60 hertz - 3 phase	

<sup>1</sup>Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

<sup>\*</sup>Rated in accordance with ARI Standard 340/360 and certified to ARI; 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering evaporator air; minimum external duct static pressure. Integrated Part Load Value tested at 80°F (27°C) outdoor air temperature.

<sup>\*\*</sup>Tested at conditions included in ARI Standard 340/360.

NOTE - ARI capacity is net and includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

## Specifications

Model No.		LHA180H	LHA240H
Cooling Ratings	Gross Cooling Capacity - Btuh (kW)	187,000 (54.8)	227,000 (66.5)
	*Net Cooling Capacity - Btuh (kW)	182,000 (52.3)	220,000 (64.4)
	Total Unit Power (kW)	18	21.5
	*EER (Btuh/Watt)	10	10.5
	*Integrated Part Load Value (Btuh/Watt)	11.2	11.5
High Temperature Heating Ratings	*Total Heating Capacity - Btuh (kW)	192,000 (56.2)	220,000 (64.5)
	*Total Unit Power (kW)	17.1	19.5
	*C.O.P.	3.3	3.3
Low Temperature Heating Ratings	*Total Heating Capacity - Btuh (kW)	106,000 (31.0)	118,000 (34.6)
	*Total Unit Power (kW)	15.5	16.5
	*C.O.P.	2.0	2.1
Refrigerant Charge Furnished (HCFC-22)	Circuit 1	24 lbs. 8 oz. (11.11 kg)	26 lbs. 0 oz (11.79 kg)
	Circuit 2	24 lbs. 8 oz. (11.11 kg)	26 lbs. 0 oz (11.79 kg)
Indoor Coil Blower and Drive Selection	Blower wheel nominal dia. X width - in. (mm)	(2) 15 x 15 (381 x 381)	
	3 hp (2.2 kW) 1Motor & Drives	Nominal motor output - hp (kW)	3 (2.2)
		Max. usable motor output - hp (kW)	3.45 (2.6)
		Voltage & phase	208/230v, 460v or 575v-3ph
		Drive kit #) RPM range	(A) 535-725 or (1) 685-865
	5 hp (3.7 kW) 1Motor & Drives	Nominal motor output - hp (kW)	5 (3.7)
		Max. usable motor output - hp (kW)	5.75 (4.3)
		Voltage & phase	208/230v, 460v or 575v-3ph
		Drive kit #) RPM range	(2) 685-865, (3) 850-1045 or (4) 945-1185
	7.5 hp (5.6 kW) 1Motor & Drive	Nominal motor output - hp (kW)	7.5 (5.6)
		Max. usable motor output - hp (kW)	8.63 (6.4)
		Voltage & phase	208/230v, 460v or 575v-3ph
		Drive kit #) RPM range	(5) 945-1185, (6) 1045-1285, or (7) 850-1045
	10 hp (7.5 kW) 1Motor & Drive	Nominal motor output - hp (kW)	---
		Max. usable motor output - hp (kW)	11.5 (8.6)
		Voltage & phase	208/230v, 460v, or 575v - 3 ph
		Drive kit #) RPM range	(6) 1045-1285 or (8) 1135-1365
Indoor Coil	Net face area - sq. ft. (m <sup>2</sup> )	22.3 (2.07)	
	Tube diameter - in. (mm) & No. of rows	3/8 (9.5)-3	3/8 (9.5)-4
	Fins per inch (m)	14 (551)	
	Drain connection no. & size - in. (mm) fpt	(1) 1 (25.4)	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
Outdoor Coil	Net face area - sq. ft. (m <sup>2</sup> )	57.0 (5.30)	
	Tube diameter - in. (mm) & No. of rows	3/8 (9.5)-2	
	Fins per inch (m)	20 (787)	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
Outdoor Fans	Diameter - in. (mm) & No. of blades	(4) 24 (610)-3	
	Total Air volume - cfm (L/s)	15,450 (7290)	
	Motor horsepower (W)	(4) 1/3 (249)	
	Motor rpm	1075	
	Total Motor watts	1395	
Filters (furnished)	Type of filter	Disposable, commercial grade, pleated	
	No. and size - in. (mm)	(6) 24 x 24 x 2 (610 x 610 x 51)	
	Electrical characteristics	208/230v, 460v or 575v - 60 hz - 3 ph	

\*Rated in accordance with ARI Standard 340/360 and certified by ULE. Integrated Part Load Value tested at 80 °F (27°C) outdoor air temperature.

Cooling Ratings - 95 °F (35°C) outdoor air temperature and 80°F (27 °C) db/67°F (19°C) wb entering indoor coil air

High Temperature Heating Ratings - 47 °F (8°C) db/43°F (6°C) wb outdoor air temperature and 70 °F (21°C) entering indoor coil air

Low Temperature Heating Ratings - 17 °F (-8°C) db/15°F (-9°C) wb outdoor air temperature and 70 °F (21°C) entering indoor coil air

NOTE - ARI capacity is net and includes indoor blower motor heat deduction. Gross capacity does not include indoor blower motor heat deduction.

<sup>1</sup>Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

## Weight Data

Model No.	Description	Weight	
		lbs.	kg
<b>Net Weights</b>			
LCA180S	Net weight (Base unit)	2200	1000
LCA210S	Net weight (Base unit)	2285	1035
LCA240S	Net weight (Base unit)	2415	1095
LCA300S	Net weight (Base unit)	2480	1125
LGA180S	Net weight (Base unit with low fire heat exchanger)	2255	1025
LGA210S	Net weight (Base unit with low fire heat exchanger)	2340	1060
LGA240S	Net weight (Base unit with low fire heat exchanger)	2470	1120
LGA300S	Net weight (Base unit with low fire heat exchanger)	2535	1150
LHA180H	Net weight (Base unit)	2355	1070
LHA240H	Net weight (Base unit)	2400	1090
<b>Shipping Weights</b>			
LCA180S	Base unit	2400	1089
LCA210S	Base unit	2485	1127
LCA240S	Base unit	2615	1186
LCA 300S	Base unit	2680	1216
LHA180H	Base unit	2570	1166
LHA240H	Base unit	2615	1186
LGA180S	Base unit with low fire heat exchanger	2455	1114
LGA210S	Base unit with low fire heat exchanger	2540	1152
LGA240S	Base unit with low fire heat exchanger	2670	1211
LGA300S	Base unit with low fire heat exchanger	2735	1241
LGA Models Only	High Fire Heat Exchanger (add to base unit)	30	14

## High Altitude Derate (LGA Models)

Units may be installed at altitudes up to 2000 feet (610 m) above sea level without any modification. At altitudes above 2000 feet (610 m), units must be derated to match gas manifold pressures shown in table below.

NOTE - This is the only permissible derate for these units.

Altitude - ft. (m)	Gas Manifold Pressure - in. w.g. (kPa)
2001-3000 (610-915)	3.6 (.90)
3001-4000 (915-1220)	3.5 (.87)
4001-5000 (1220-1525)	3.4 (.85)
5001-6000 (1525-1830)	3.3 (.82)
6001-7000 (1830-2135)	3.2 (.80)
7001-8000 (2135-2440)	3.1 (.77)

## Electrical Data

Model No.		LCA/LGA180S									
Line voltage data - 60 Hz - 3 phase		208/230v			460v			575v			
Compressors (3)	Rated load amps each (total)		16.7 (50.1)			8.6 (25.8)			6.0 (18.0)		
	Locked rotor amps each (total)		110.0 (330.0)			55.0 (165.0)			44.0 (132.0)		
Condenser Fan Motors (4)	Full load amps each (total)		2.4 (9.6)			1.3 (5.2)			1.3 (5.2)		
	Locked rotor amps each (total)		4.7 (18.8)			2.3 (9.6)			1.9 (7.6)		
Evaporator Blower Motor	Motor Output	hp	3	5	7.5	3	5	7.5	3	5	7.5
		kW	2.2	3.7	5.6	2.2	3.7	5.6	2.2	3.7	5.6
	Full load amps		10.6	16.7	24.2	4.8	7.6	11.0	3.9	6.1	9.0
	Locked rotor amps		66.0	105.0	152.0	26.8	45.6	66.0	23.4	36.6	54.0
Recommended maximum fuse size (amps)	With Exhaust Fans		90	100	110	45	50	50	35	35	40
	Less Exhaust Fans		90	90	110	45	45	50	30	35	40
†Minimum Circuit Ampacity	With Exhaust Fans		79	85	95	40	43	47	29	32	35
	Less Exhaust Fans		74	81	90	38	41	45	27	30	33
Optional Power Exhaust Fans	(No.) Horsepower (W)		(2) 1/3 (249)								
	Full load amps (total)		4.8			2.6			2.0		
	Locked rotor amps (total)		9.4			4.8			3.8		
Service Outlet (2) 115 volt GFCI (amp rating)		15									

†Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Note - Extremes of operating range are plus and minus 10% of line voltage.

Note - Where current does not exceed 100 amps, HACR type circuit breaker may be used in place of fuse (U.S. only).

## Electrical Data

Model No.			LCA/LGA210S								
Line voltage data - 60 Hz - 3 phase			208/230v			460v			575v		
Compressors (4)	Rated load amps each (total)			14.0 (56.0)			7.0 (28.0)			5.8 (23.2)	
	Locked rotor amps each (total)			92.0 (368.0)			46.0 (184.0)			44.0 (176.0)	
Condenser Fan Motors (4)	Full load amps each (total)			2.4 (9.6)			1.3 (5.2)			1.0 (4.0)	
	Locked rotor amps each (total)			4.7 (18.8)			2.3 (9.6)			1.9 (7.6)	
Evaporator Blower Motor	Motor	hp	3	5	7.5	3	5	7.5	3	5	7.5
	Output	kW	2.2	3.7	5.6	2.2	3.7	5.6	2.2	3.7	5.6
	Full load amps			10.6	16.7	24.2	4.8	7.6	11.0	3.9	6.1
	Locked rotor amps			66	105	152	26.8	45.6	66	23.4	36.6
Recommended maximum fuse size (amps)	With Exhaust Fans			90	100	125	50	50	60	40	40
	Less Exhaust Fans			90	100	110	45	50	60	35	40
1Minimum Circuit Ampacity	With Exhaust Fans			85	91	101	45	48	52	35	38
	Less Exhaust Fans			80	87	96	43	46	50	33	35
Optional Power Exhaust Fans	(No.) Horsepower (W)			(2) 1/3 (249)							
	Full load amps (total)			4.8			2.6			2.0	
	Locked rotor amps (total)			9.4			4.8			3.8	
Service Outlet (2) 115 volt GFCI (amp rating)			15								

<sup>1</sup>Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Note - Extremes of operating range are plus and minus 10% of line voltage.

Note - Where current does not exceed 100 amps, HACR type circuit breaker may be used in place of fuse (U.S. only).

## Electrical Data

Model No.			LCA/LGA240S								
Line voltage data - 60 Hz - 3 phase			208/230v			460v			5/5v		
Compressors (4)	Rated load amps each (total)			16.7 (66.8)			8.6 (34.4)			6.0 (24.0)	
	Locked rotor amps each (total)			110.0 (440.0)			55.0 (220.0)			44.0 (176.0)	
Condenser Fan Motors (4)	Full load amps each (total)			2.4 (9.6)			1.3 (5.2)			1.0 (4.0)	
	Locked rotor amps each (total)			4.7 (18.8)			2.3 (9.6)			1.9 (7.6)	
Evaporator Blower Motor	Motor	hp	5	7.5	10	5	7.5	10	5	7.5	10
	Output	kW	3.7	5.6	7.5	3.7	5.6	7.5	3.7	5.6	7.5
	Full load amps			16.7	24.2	30.8	7.6	11	14	6.1	9
	Locked rotor amps			105	152	193	45.6	66	84	36.6	54
Recommended maximum fuse size (amps)	With Exhaust Fans			110	125	125	60	60	60	40	45
	Less Exhaust Fans			110	125	125	50	60	60	40	45
1Minimum Circuit Ampacity	With Exhaust Fans			102	111	117	52	56	59	38	41
	Less Exhaust Fans			97	107	112	49	53	56	36	39
Optional Power Exhaust Fans	(No.) Horsepower (W)			(2) 1/3 (249)							
	Full load amps (total)			4.8			2.6			2.0	
	Locked rotor amps (total)			9.4			4.8			3.8	
Service Outlet (2) 115 volt GFCI (amp rating)			15								

<sup>1</sup>Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Note - Extremes of operating range are plus and minus 10% of line voltage.

Note - Where current does not exceed 100 amps, HACR type circuit breaker may be used in place of fuse (U.S. only).

# 12 LCA/LGA/LHA180, 210, 240 & 300S

## Electrical Data

Model No.			LCA/LGA300S								
Line voltage data - 60 Hz - 3 phase			208/230v			460v			575v		
Compressors (4)	Rated load amps each (total)			18.6 (74.4)			9.0 (36.0)			7.4 (29.6)	
	Locked rotor amps each (total)			156 (624)			70 (280)			54 (216)	
Condenser Fan Motors (4)	No. of motors			4							
	Full load amps each (total)			3.0 (12.0)			1.5 (6.0)			1.2 (4.8)	
	Locked rotor amps each (total)			6.0 (24.0)			3.0 (12.0)			2.9 (11.6)	
Evaporator Blower Motor	Motor	hp	5	7.5	10	5	7.5	10	5	7.5	10
	Output	kW	3.7	5.6	7.5	3.7	5.6	7.5	3.7	5.6	7.5
	Full load amps			16.7	24.2	30.8	7.6	11	14	6.1	9.0
Locked rotor amps			105	152	193	45.6	66	84	36.6	54	66
Recommended maximum fuse size (amps)	With Exhaust Fans			125	125	150	60	60	70	50	50
	Less Exhaust Fans			125	125	150	60	60	70	45	50
1Minimum Circuit Ampacity	With Exhaust Fans			113	122	130	55	59	63	45	48
	Less Exhaust Fans			108	117	125	52	56	60	43	46
Optional Power Exhaust Fans	(No.) Horsepower (W)									(2) 1/3 (249)	
	Full load amps (total)			4.8			2.6			2	
	Locked rotor amps (total)			9.4			4.8			3.8	
Service Outlet (2) 115 volt GFCI (amp rating)			15								

<sup>1</sup>Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Note - Extremes of operating range are plus and minus 10% of line voltage.

Note - Where current does not exceed 100 amps, HACR type circuit breaker may be used in place of fuse (U.S. only).

## Electrical Data

Model No.			LHA180H						LHA240H						
Line voltage data - 60 hz - 3 phase			208/230v			460v			575v			208/230v			
Compressors (2)	Rated load amps each (total)			28.8 (57.6)			14.7 (29.4)			10.8 (21.6)			30.1 (60.2)		
	Locked rotor amps each (total)			195 (390)			95 (190)			80 (160)			225 (450)		
Outdoor Coil Fan Motors (4)	Full load amps each (total)			2.4 (9.6)			1.3 (5.2)			1.0 (4.0)			2.4 (9.6)		
	Locked rotor amps each (total)			4.7 (18.8)			2.3 (9.6)			1.9 (7.6)			4.7 (18.8)		
Indoor Coil Blower Motor	Motor	hp	3.0	5.0	7.5	3.0	5.0	7.5	3.0	5.0	7.5	10.0	5.0	7.5	10.0
	Output	kW	2.2	3.7	5.6	2.2	3.7	5.6	2.2	3.7	5.6	7.5	3.7	5.6	7.5
	Full load amps			10.6	16.7	24.2	4.8	7.6	11.0	3.9	6.1	9.0	16.7	24.2	30.8
	Locked rotor amps			66	105	152	26.8	45.6	66	23.4	26.6	54	105	152	193
Rec. max. fuse size (amps)	With Exhaust Fans			110	110	125	60	60	60	40	45	50	125	125	60
	Less Exhaust Fans			110	110	125	50	60	60	40	45	45	110	125	60
1Minimum Circuit Ampacity	With Exhaust Fans			90	96	104	46	49	52	35	37	40	99	107	113
	Less Exhaust Fans			86	92	99	44	46	50	33	35	38	95	102	109
Optional Power Exhaust Fans	(No.) Horsepower (W)									(2) 1/3 (249)					
	Full load amps (total)			4.8			2.6			2.0			4.8		
	Locked rotor amps (total)			9.4			4.8			3.8			9.4		
Service Outlet (2) 115 volt GFCI (amp rating)			15												

<sup>1</sup>Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Note - Extremes of operating range are plus and minus 10% of line voltage.

Note - Where current does not exceed 100 amps, HACR type circuit breaker may be used in place of fuse (U.S. only).

## Optional Electric Heat Accessories - LCA/LHA Models

### Electric Heat Control Module and Unit Fuse Blocks

Unit Model No.		LCA180S	LCA210S	LCA240S	LCA300S	LHA180H	LHA240H		
Electric Heat	kW Input Range	EHA (see Electric Heat Data tables for additional information)							
		15	X	X	X	X	X		
		30	X	X	X	X	X		
		45	X	X	X	X	X		
		60	X	X	X	X	X		
		90	--	X	X	--	X		
Electric Heat Control Module (45/60/90 kW)		<b>15K13</b> (208/230v), <b>15K92</b> (460v), <b>15K93</b> (575v)							
Unit Fuse Block (3 phase)	With Power Exhaust Fans	208/230v - 3 hp (2.2 kW)	<b>25K15</b>		--	<b>25K18</b>	--		
		460v - 3 hp (2.2 kW)	<b>25K11</b>	<b>25K13</b>		<b>25K14</b>	--		
		575v - 3 hp (2.2 kW)	<b>25K09</b>	<b>25K10</b>		<b>25K10</b>	--		
		208/230v - 5 hp (3.7 kW)	<b>25K17</b>	<b>25K18</b>		<b>25K19</b>	<b>25K18</b>		
		460v - 5 hp (3.7 kW)	<b>25K13</b>		<b>25K14</b>	<b>25K14</b>			
		575v - 5 hp (3.7 kW)	<b>25K09</b>	<b>25K10</b>		<b>25K13</b>	<b>25K11</b>		
		208/230v - 7.5 hp (5.6 kW)	<b>25K18</b>	<b>25K19</b>		<b>25K19</b>			
		460v - 7.5 hp (5.6 kW)	<b>25K13</b>	<b>25K14</b>		<b>25K14</b>			
		575v - 7.5 hp (5.6 kW)	<b>25K10</b>	<b>25K13</b>		<b>25K13</b>			
		208/230v - 10 hp (7.5 kW)	--				<b>25K19</b>		
		460v - 10 hp (7.5 kW)	--				<b>35K03</b>		
		575v - 10 hp (7.5 kW)	--				<b>25K13</b>		
Unit Fuse Block (3 phase)	Without Power Exhaust Fans	208/230v - 3 hp (2.2 kW)	<b>25K15</b>		--	<b>25K18</b>	--		
		460v - 3 hp (2.2 kW)	<b>25K11</b>		--	<b>25K13</b>	--		
		575v - 3 hp (2.2 kW)	<b>25K08</b>	<b>25K09</b>	--	<b>25K10</b>	--		
		208/230v - 5 hp (3.7 kW)	<b>25K15</b>	<b>25K17</b>	<b>25K18</b>	<b>25K19</b>	<b>25K18</b>		
		460v - 5 hp (3.7 kW)	<b>25K11</b>	<b>25K13</b>		<b>25K14</b>	<b>25K14</b>		
		575v - 5 hp (3.7 kW)	<b>25K09</b>	<b>25K10</b>		<b>25K11</b>	<b>25K11</b>		
		208/230v - 7.5 hp (5.6 kW)	<b>25K18</b>		<b>25K19</b>	<b>25K19</b>			
		460v - 7.5 hp (5.6 kW)	<b>25K13</b>	<b>25K14</b>		<b>25K14</b>			
		575v - 7.5 hp (5.6 kW)	<b>25K10</b>	<b>25K11</b>		<b>25K13</b>	<b>25K11</b>		
		208/230v - 10 hp (7.5 kW)	--				<b>25K19</b>		
		460v - 10 hp (7.5 kW)	--				<b>25K14</b>		
		575v - 10 hp (7.5 kW)	--				<b>25K13</b>		

## Optional Electric Heat Accessories - LCA/LHA Models

*Electric Heat Control Module and Unit Fuse Blocks*

### LTB2 ELECTRIC HEAT TERMINAL BLOCK

**LTB2-175 (30K75)** 175 amps, **LTB2-335 (30K76)** 335 amps

(Required for Units **Without** Disconnect/Circuit Breaker But **With** Single Point Power Source)

Unit Model No.	LCA180S	LCA180H	LCA210S	LCA240S	LCA300	LHA180H	LHA240H
LTB2 Terminal Block (3 phase)	3 hp (2.2 kW)	<b>30K75</b>			---	<b>30K75</b>	<b>30K75</b>
	5 hp (3.7 kW)				---		
	7.5 hp (5.6 kW)				---		
	10 hp (7.5 kW)	---	---	---	---	---	
	3 hp (2.2 kW)	<b>30K75</b>			---	<b>30K75</b>	<b>30K76</b>
	5 hp (3.7 kW)				---		
	7.5 hp (5.6 kW)				---		
	10 hp (7.5 kW)	---	---	---	---	---	
	3 hp (2.2 kW)	<b>30K75</b>			---	<b>30K75</b>	<b>30K76</b>
	5 hp (3.7 kW)				---		
	7.5 hp (5.6 kW)				---		
	10 hp (7.5 kW)	---	---	---	---	---	
LTB2 Terminal Block (3 phase)	3 hp (2.2 kW)	<b>30K75</b>			---	<b>30K75</b>	<b>30K76</b>
	5 hp (3.7 kW)				---		
	7.5 hp (5.6 kW)				---		
	10 hp (7.5 kW)	---	---	---	---	---	
	3 hp (2.2 kW)	<b>30K75</b>			---	<b>30K75</b>	<b>30K76</b>
	5 hp (3.7 kW)				---		
	7.5 hp (5.6 kW)				---		
	10 hp (7.5 kW)	---	---	---	---	---	
	3 hp (2.2 kW)	<b>30K76</b>			---	<b>30K76</b>	<b>30K76</b>
	5 hp (3.7 kW)				---		
	7.5 hp (5.6 kW)				---		
	10 hp (7.5 kW)	---	---	---	---	---	

\*NOTE - ALL 460V AND 575V UNIT VOLTAGES USE LTB2-175 (30K75) TERMINAL BLOCK.

## **Optional Electric Heat Data - LCA Model 180S**

**(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)**

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat <sup>3</sup> Maximum Fuse Size (with Power Exhaust Fans)		
						3 hp (2.2kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	3 hp (2.2kW)	5 hp (3.7kW)	7.5 hp (5.6kW)
15 kW	*(1) <b>EHA240-7.5</b> 208/230v <b>(99J16)</b> 460v <b>(99J18)</b> 575v <b>(99J20)</b> and *(1) <b>EHA240S-7.5</b> 208/230v <b>(99J17)</b> 460v <b>(99J19)</b> 575v <b>(99J21)</b> 59 lbs. (27 kg) (total weight)	1	208	11.3	38,600	80	86	93	90	100	100
			220	12.6	43,000						
			230	13.8	47,100						
			240	15.0	51,200						
			440	12.6	43,000	41	44	47	45	50	50
			460	13.8	47,100						
			480	15.0	51,200						
			550	12.6	43,000						
			575	13.8	47,100	30	32	35	35	35	40
			600	15.0	51,200						
30 kW	*(1) <b>EHA360-15</b> 208/230v <b>(99J22)</b> 460v <b>(99J24)</b> 575v <b>(99J26)</b> and *(1) <b>EHA360S-15</b> 208/230v <b>(99J23)</b> 460v <b>(99J25)</b> 575v <b>(99J27)</b> 59 lbs. (27 kg) (total weight)	1	208	22.5	76,800	110	118	127	110	125	150
			220	25.2	86,000						
			230	27.5	93,900						
			240	30.0	102,400						
			440	25.2	86,000	55	58	63	60	60	70
			460	27.5	93,900						
			480	30.0	102,400						
			550	25.2	86,000						
			575	27.5	93,900	44	47	50	45	50	50
			600	30.0	102,400						
45 kW	**(2) <b>EHA360-22.5</b> 208/230v <b>(99J28)</b> 460v <b>(99J29)</b> 575v <b>(99J30)</b> 76 lbs. (35 kg) (total weight)	2	208	33.8	115,300	155	163	172	175	175	175
			220	37.8	129,000						
			230	41.3	141,000						
			240	45.0	153,600						
			440	37.8	129,000	77	81	85	80	90	90
			460	41.3	141,000						
			480	45.0	153,600						
			550	37.8	129,000						
			575	41.3	141,000	62	65	68	70	70	70
			600	45.0	153,600						
60 kW	**(2) <b>EHA150-30</b> 208/230v <b>(99J07)</b> 460v <b>(99J08)</b> 575v <b>(99J09)</b> 76 lbs. (35 kg) (total weight)	2	208	45.0	153,600	164	172	181	175	175	200
			220	50.4	172,000						
			230	55.1	188,000						
			240	60.0	204,800						
			440	50.4	172,000	82	85	90	90	90	90
			460	55.1	188,000						
			480	60.0	204,800						
			550	50.4	172,000						
			575	55.1	188,000	66	68	72	70	70	80
			600	60.0	204,800						

**\*NOTE** - For field installed electric heat, order (1) of each heater shown to make up heater size required.

**\*\*NOTE** - For field installed electric heat, order (2) of each heater shown to make up heater size required.

<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only). See Optional Electric Heat Accessories tables.

<sup>2</sup>May be used with two stage control.

<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LT2B Terminal Block. See Optional Electric Heat Accessories tables.

## Optional Electric Heat Data - LCA Model 210S

(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat <sup>3</sup> Maximum Fuse Size (with Power Exhaust Fans)		
						3 hp (2.2kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	3 hp (2.2kW)	5 hp (3.7kW)	7.5 hp (5.6kW)
15 kW	*(1) <b>EHA240-7.5</b> 208/230v ( <b>99J16</b> ) 460v ( <b>99J18</b> ) 575v ( <b>99J20</b> ) and *(1) <b>EHA240S-7.5</b> 208/230v ( <b>99J17</b> ) 460v ( <b>99J19</b> ) 575v ( <b>99J21</b> ) 59 lbs. (27 kg) (total weight)	1	208	11.3	38,600	85	91	99	90	100	110
			220	12.6	43,000						
			230	13.8	47,100						
			240	15.0	51,200						
			440	12.6	43,000	42	44	48	45	50	50
			460	13.8	47,100						
			480	15.0	51,200						
			550	12.6	43,000						
			575	13.8	47,100	36	38	41	40	40	45
			600	15.0	51,200						
30 kW	*(1) <b>EHA360-15</b> 208/230v ( <b>99J22</b> ) 460v ( <b>99J24</b> ) 575v ( <b>99J26</b> ) and *(1) <b>EHA360S-15</b> 208/230v ( <b>99J23</b> ) 460v ( <b>99J25</b> ) 575v ( <b>99J27</b> ) 59 lbs. (27 kg) (total weight)	1	208	22.5	76,800	110	118	127	110	125	150
			220	25.2	86,000						
			230	27.5	93,900						
			240	30.0	102,400						
			440	25.2	86,000	55	58	63	60	60	70
			460	27.5	93,900						
			480	30.0	102,400						
			550	25.2	86,000						
			575	27.5	93,900	44	47	50	45	50	50
			600	30.0	102,400						
45 kW	**(2) <b>EHA360-22.5</b> 208/230v ( <b>99J28</b> ) 460v ( <b>99J29</b> ) 575v ( <b>99J30</b> ) 76 lbs. (35 kg) (total weight)	2	208	33.8	115,300	155	163	172	175	175	175
			220	37.8	129,000						
			230	41.3	141,000						
			240	45.0	153,600						
			440	37.8	129,000	77	81	85	80	90	90
			460	41.3	141,000						
			480	45.0	153,600						
			550	37.8	129,000						
			575	41.3	141,000	62	65	68	70	70	70
			600	45.0	153,600						

**\*NOTE** - For field installed electric heat, order (1) of each heater shown to make up heater size required.

**\*\*NOTE** - For field installed electric heat, order (2) of each heater shown to make up heater size required.

<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only). See Optional Electric Heat Accessories tables.

<sup>2</sup>May be used with two stage control.

<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.

## Optional Electric Heat Data - LCA Model 210S

(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat <sup>3</sup> Maximum Fuse Size (with Power Exhaust Fans)		
						3 hp (2.2kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	3 hp (2.2kW)	5 hp (3.7kW)	7.5 hp (5.6kW)
60 kW	<b>*(2) EHA150-30</b> 208/230v (99J07) 460v (99J08) 575v (99J09) 76 lbs. (35 kg) (total weight)	<sup>2</sup> 2	208	45.0	153,600	164	172	181	175	175	200
			220	50.4	172,000						
			230	55.1	188,000						
			240	60.0	204,800						
			440	50.4	172,000	82	85	90	90	90	90
			460	55.1	188,000						
			480	60.0	204,800						
			550	50.4	172,000						
			575	55.1	188,000	66	68	72	70	70	80
			600	60.0	204,800						
90 kW	<b>*(2) EHA360-45</b> 208/230v (99J31) 460v (99J32) 575v (99J33) 84 lbs. (38 kg) (total weight)	<sup>2</sup> 2	208	67.6	230,700	236	244	253	250	250	300
			220	75.6	258,000						
			230	82.7	282,200						
			240	90.0	307,100						
			440	75.6	258,000	118	122	126	125	125	150
			460	82.7	282,200						
			480	90.0	307,100						
			550	75.6	258,000						
			575	82.7	282,200	94	97	101	100	100	110
			600	90.0	307,100						

\*NOTE - For field installed electric heat, order (1) of each heater shown to make up heater size required.

\*\*NOTE - For field installed electric heat, order (2) of each heater shown to make up heater size required.

<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only). See Optional Electric Heat Accessories tables.

<sup>2</sup>May be used with two stage control.

<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.

**Optional Electric Heat Data - LCA Model 240S**(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat Maximum Fuse Size (with Power Exhaust Fans)		
						5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)
15 kW	*(1) <b>EHA240-7.5</b> 208/230v ( <b>99J16</b> ) 460v ( <b>99J18</b> ) 575v ( <b>99J20</b> ) and *(1) <b>EHA240S-7.5</b> 208/230v ( <b>99J17</b> ) 460v ( <b>99J19</b> ) 575v ( <b>99J21</b> ) 59 lbs. (27 kg) (total weight)	1	208	11.3	38,600	103	110	112	110	125	125
			220	12.6	43,000						
			230	13.8	47,100						
			240	15.0	51,200						
			440	12.6	43,000	52	56	59	60	60	60
			460	13.8	47,100						
			480	15.0	51,200						
			550	12.6	43,000						
			575	13.8	47,100	38	41	43	40	45	45
			600	15.0	51,200						
30 kW	*(1) EHA360-15 208/230v ( <b>99J22</b> ) 460v ( <b>99J24</b> ) 575v ( <b>99J26</b> ) and *(1) <b>EHA360S-15</b> 208/230v ( <b>99J23</b> ) 460v ( <b>99J25</b> ) 575v ( <b>99J27</b> ) 59 lbs. (27 kg) (total weight)	1	208	22.5	76,800	118	127	135	125	150	150
			220	25.2	86,000						
			230	27.5	93,900						
			240	30.0	102,400						
			440	25.2	86,000	58	63	66	60	70	70
			460	27.5	93,900						
			480	30.0	102,400						
			550	25.2	86,000						
			575	27.5	93,900	47	50	53	50	50	60
			600	30.0	102,400						
45 kW	**(2) <b>EHA360-22.5</b> 208/230v ( <b>99J28</b> ) 460v ( <b>99J29</b> ) 575v ( <b>99J30</b> ) 76 lbs. (35 kg) (total weight)	2 <sup>2</sup>	208	33.8	115,300	163	172	180	175	175	200
			220	37.8	129,000						
			230	41.3	141,000						
			240	45.0	153,600						
			440	37.8	129,000	81	85	89	90	90	90
			460	41.3	141,000						
			480	45.0	153,600						
			550	37.8	129,000						
			575	41.3	141,000	65	68	71	70	70	80
			600	45.0	153,600						

\*NOTE - For field installed electric heat, order (1) of each heater shown to make up heater size required.

\*\*NOTE - For field installed electric heat, order (2) of each heater shown to make up heater size required.

¹Electric Heat Control Module required on 45, 60 &amp; 90 kW sizes only). See Optional Electric Heat Accessories tables.

²May be used with two stage control.

³Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

NOTE - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.

## Optional Electric Heat Data - LCA Model 240S

(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat <sup>3</sup> Maximum Fuse Size (with Power Exhaust Fans)		
						5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)
60 kW	<b>**(2) EHA150-30</b> 208/230v <b>(99J07)</b> 460v <b>(99J08)</b> 575v <b>(99J09)</b> 76 lbs. (35 kg) (total weight)	<sup>2</sup> 2	208	45.0	153,600	172	161	189	175	200	200
			220	50.4	172,000		181				
			230	55.1	188,000		90	93			
			240	60.0	204,800		72	74	70	90	100
			440	50.4	172,000	68	71				
			460	55.1	188,000		90	93			
			480	60.0	204,800		72	74	70	80	80
			550	50.4	172,000		71				
			575	55.1	188,000	244	253	261	250	300	300
			600	60.0	204,800		253	261	250	300	300
90 kW	<b>**(2) EHA360-45</b> 208/230v <b>(99J31)</b> 460v <b>(99J32)</b> 575v <b>(99J33)</b> 84 lbs. (38 kg) (total weight)	<sup>2</sup> 2	208	67.6	230,700		126	130	125	150	150
			220	75.6	258,000		122	126	130	125	150
			230	82.7	282,200		97	101	103	100	110
			240	90.0	307,100		97	101	103	100	110
			440	75.6	258,000		97	101	103	100	110
			460	82.7	282,200		97	101	103	100	110
			480	90.0	307,100		97	101	103	100	110
			550	75.6	258,000		97	101	103	100	110
			575	82.7	282,200		97	101	103	100	110
			600	90.0	307,100		97	101	103	100	110

\*NOTE - For field installed electric heat, order (1) of each heater shown to make up heater size required.

\*\*NOTE - For field installed electric heat, order (2) of each heater shown to make up heater size required.

<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only). See Optional Electric Heat Accessories tables.

<sup>2</sup>May be used with two stage control.

<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.

**Optional Electric Heat Data - LCA Model 300S**(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat Maximum Fuse Size (with Power Exhaust Fans)		
						5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)
15 kW	*(1) <b>EHA240-7.5</b> 208/230v ( <b>99J16</b> ) 460v ( <b>99J18</b> ) 575v ( <b>99J20</b> ) and *(1) <b>EHA240S-7.5</b> 208/230v ( <b>99J17</b> ) 460v ( <b>99J19</b> ) 575v ( <b>99J21</b> ) 59 lbs. (27 kg) (total weight)	1	208	11.3	38,600	113	122	130	125	125	150
			220	12.6	43,000						
			230	13.8	47,100						
			240	15.0	51,200						
			440	12.6	43,000	55	59	63	60	60	70
			460	13.8	47,100						
			480	15.0	51,200						
			550	12.6	43,000						
			575	13.8	47,100	45	48	51	50	50	60
			600	15.0	51,200						
30 kW	*(1) <b>EHA360-15</b> 208/230v ( <b>99J22</b> ) 460v ( <b>99J24</b> ) 575v ( <b>99J26</b> ) and *(1) <b>EHA360S-15</b> 208/230v ( <b>99J23</b> ) 460v ( <b>99J25</b> ) 575v ( <b>99J27</b> ) 59 lbs. (27 kg) (total weight)	1	208	22.5	76,800	118	127	135	125	150	150
			220	25.2	86,000						
			230	27.5	93,900						
			240	30.0	102,400						
			440	25.2	86,000	58	63	66	60	70	70
			460	27.5	93,900						
			480	30.0	102,400						
			550	25.2	86,000						
			575	27.5	93,900	47	50	53	50	50	60
			600	30.0	102,400						
45 kW	**(2) <b>EHA360-22.5</b> 208/230v ( <b>99J28</b> ) 460v ( <b>99J29</b> )** 575v ( <b>99J30</b> ) 76 lbs. (35 kg) (total weight)	2	208	33.8	115,300	163	172	180	175	175	200
			220	37.8	129,000						
			230	41.3	141,000						
			240	45.0	153,600						
			440	37.8	129,000	81	85	89	90	90	90
			460	41.3	141,000						
			480	45.0	153,600						
			550	37.8	129,000						
			575	41.3	141,000	65	68	71	70	70	80
			600	45.0	153,600						

**\*NOTE** - For field installed electric heat, order (1) of each heater shown to make up heater size required.**\*\*NOTE** - For field installed electric heat, order (2) of each heater shown to make up heater size required.

1Electric Heat Control Module required on 45, 60 &amp; 90 kW sizes only). See Optional Electric Heat Accessories tables.

2May be used with two stage control.

3Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.

## Optional Electric Heat Data - LCA Model 300S

(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat <sup>3</sup> Maximum Fuse Size (with Power Exhaust Fans)		
						5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)
60 kW	<b>**(2) EHA150-30</b> 208/230v <b>(99J07)</b> 460v <b>(99J08)</b> 575v <b>(99J09)</b> 76 lbs. (35 kg) (total weight)	<sup>2</sup> 2	208	45.0	153,600	172	181	189	175	200	200
			220	50.4	172,000						
			230	55.1	188,000						
			240	60.0	204,800						
			440	50.4	172,000						
			460	55.1	188,000	85	90	93	90	90	100
			480	60.0	204,800						
			550	50.4	172,000						
			575	55.1	188,000	68	72	74	70	80	80
			600	60.0	204,800						
90 kW	<b>**(2) EHA360-45</b> 208/230v <b>(99J31)</b> 460v <b>(99J32)</b> 575v <b>(99J33)</b> 84 lbs. (38 kg) (total weight)	<sup>2</sup> 2	208	67.6	230,700	244	253	261	250	300	300
			220	75.6	258,000						
			230	82.7	282,200						
			240	90.0	307,100						
			440	75.6	258,000	122	126	130	125	150	150
			460	82.7	282,200						
			480	90.0	307,100						
			550	75.6	258,000						
			575	82.7	282,200						
			600	90.0	307,100						

**\*NOTE** - For field installed electric heat, order (1) of each heater shown to make up heater size required.

**\*\*NOTE** - For field installed electric heat, order (2) of each heater shown to make up heater size required.

<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only). See Optional Electric Heat Accessories tables.

<sup>2</sup>May be used with two stage control.

<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.



## Optional Electric Heat Data - LHA Model 240H

(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat Maximum Fuse Size (with Power Exhaust Fans)		
						5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)
15 kW	*(1) <b>EHA240-7.5</b> 208/230v <b>(99J16)</b> 460v <b>(99J18)</b> 575v <b>(99J20)</b> and *(1) <b>EHA240S-7.5</b> 208/230v <b>(99J17)</b> 460v <b>(99J19)</b> 575v <b>(99J21)</b> 59 lbs. (27 kg) (total weight)	1	208	11.3	38,600	144	152	159	150	175	175
			220	12.6	43,000						
			230	13.8	47,100						
			240	15.0	51,200						
			440	12.6	43,000	73	77	80	80	80	90
			460	13.8	47,100						
			480	15.0	51,200						
			550	12.6	43,000						
			575	13.8	47,100	58	61	63	60	70	70
			600	15.0	51,200						
30 kW	*(1) <b>EHA360-15</b> 208/230v <b>(99J22)</b> 460v <b>(99J24)</b> 575v <b>(99J26)</b> and *(1) <b>EHA360S-15</b> 208/230v <b>(99J23)</b> 460v <b>(99J25)</b> 575v <b>(99J27)</b> 59 lbs. (27 kg) (total weight)	1	208	22.5	76,800	190	197	204	200	200	225
			220	25.2	86,000						
			230	27.5	93,900						
			240	30.0	102,400						
			440	25.2	86,000	96	99	102	100	100	110
			460	27.5	93,900						
			480	30.0	102,400						
			550	25.2	86,000						
			575	27.5	93,900	76	79	81	80	80	90
			600	30.0	102,400						
45 kW	**(2) <b>EHA360-22.5</b> 208/230v <b>(99J28)</b> 460v <b>(99J29)</b> 575v <b>(99J30)</b> 76 lbs. (35 kg) (total weight)	2	208	33.8	115,300	235	242	249	250	250	250
			220	37.8	129,000						
			230	41.3	141,000						
			240	45.0	153,600						
			440	37.8	129,000	118	122	125	125	125	125
			460	41.3	141,000						
			480	45.0	153,600						
			550	37.8	129,000						
			575	41.3	141,000	94	97	99	100	100	100
			600	45.0	153,600						

\*NOTE - For field installed electric heat, order (1) of each heater shown to make up heater size required.

\*\*NOTE - For field installed electric heat, order (2) of each heater shown to make up heater size required.

<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only. See Optional Electric Heat Accessories tables.

<sup>2</sup>May be used with two stage control.

<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.

\*\*\*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.

**Optional Electric Heat Data - LHA Model 240H**(Requires unit fuse block, terminal block and <sup>1</sup>heater control module)

kW Size	Electric Heat Model No. (see footnote) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	***Total Unit + Electric Heat Minimum Circuit Ampacity (with Power Exhaust Fans)			Total Unit + Electric Heat <sup>3</sup> Maximum Fuse Size (with Power Exhaust Fans)		
						5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)	5 hp (3.7kW)	7.5 hp (5.6kW)	10 hp (7.5 kW)
60 kW	<b>**(2) EHA150-30</b> 208/230v <b>(99J07)</b> 460v <b>(99J08)</b> 575v <b>(99J09)</b> 76 lbs. (35 kg) (total weight)	<sup>2</sup> 2	208	45.0	153,600	244	251	258	250	300	300
			220	50.4	172,000						
			230	55.1	188,000						
			240	60.0	204,800						
			440	50.4	172,000	123	126	129	125	150	150
			460	55.1	188,000						
			480	60.0	204,800						
			550	50.4	172,000						
			575	55.1	188,000	98	100	102	100	110	110
			600	60.0	204,800						
90 kW	<b>**(2) EHA360-45</b> 208/230v <b>(99J31)</b> 460v <b>(99J32)</b> 575v <b>(99J33)</b> 84 lbs. (38 kg) (total weight)	<sup>2</sup> 2	208	67.6	230,700	316	323	330	350	350	350
			220	75.6	258,000						
			230	82.7	282,200						
			240	90.0	307,100						
			440	75.6	258,000	159	162	165	175	175	175
			460	82.7	282,200						
			480	90.0	307,100						
			550	75.6	258,000						
			575	82.7	282,200	126	129	131	150	150	150
			600	90.0	307,100						

**\*NOTE** - For field installed electric heat, order (1) of each heater shown to make up heater size required.**\*\*NOTE** - For field installed electric heat, order (2) of each heater shown to make up heater size required.<sup>1</sup>Electric Heat Control Module required on 45, 60 & 90 kW sizes only). See Optional Electric Heat Accessories tables.<sup>2</sup>May be used with two stage control.<sup>3</sup>Where current does not exceed 100 amps, HACR circuit breaker may be used in place of fuse.<sup>\*\*\*</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 (75°C).**NOTE** - Fuse block must be ordered extra. Fuse block must be installed in field installed heaters. Also requires LTB2 Terminal Block. See Optional Electric Heat Accessories tables.





















## **Field/Factory Installed Accessory Air Resistance - LHA**

Air Volume		Total Resistance - inches water gauge (Pa)				
		Wet Indoor Coil		Electric Heat	Economizer	LARMF18/24 Roof Mounting Frame
cfm	L/s	LHA180	LHA240	LHA180/240	LHA180/240	LHA180/240
3500	1650	.03 (7)	---	.01 (2)	.04 (10)	.05 (12)
3600	1700	---	---	---	---	---
3750	1770	.03 (7)	---	.01 (2)	.04 (10)	.06 (15)
3800	1795	---	---	---	---	---
4000	1890	.04 (10)	---	.01 (2)	.05 (12)	.06 (15)
4250	2005	.04 (10)	---	.01 (2)	.05 (12)	.07 (17)
4500	2125	.04 (10)	.08 (20)	.01 (2)	.05 (12)	.07 (17)
4750	2240	.05 (12)	.09 (22)	.01 (2)	.05 (12)	.08 (20)
5000	2360	.05 (12)	.10 (25)	.01 (2)	.06 (15)	.08 (20)
5250	2475	.06 (15)	.10 (25)	.02 (5)	.06 (15)	.09 (22)
5500	2595	.06 (15)	.11 (27)	.02 (5)	.06 (15)	.10 (25)
5750	2715	.06 (15)	.12 (30)	.02 (5)	.07 (17)	.11 (27)
6000	2830	.07 (17)	.13 (32)	.02 (5)	.07 (17)	.11 (27)
6250	2950	.07 (17)	.14 (35)	.02 (5)	.08 (20)	.12 (30)
6500	3065	.08 (20)	.14 (35)	.03 (7)	.08 (20)	.13 (32)
6750	3185	.08 (20)	.15 (37)	.03 (7)	.08 (20)	.14 (35)
7000	3305	.09 (22)	.16 (40)	.03 (7)	.09 (22)	.15 (37)
7250	3420	.09 (22)	.17 (42)	.03 (7)	.09 (22)	.16 (40)
7500	3540	.10 (25)	.18 (45)	.03 (7)	.10 (25)	.17 (42)
7750	3655	.10 (25)	.19 (47)	.04 (10)	.10 (25)	.18 (45)
8000	3775	.11 (27)	.20 (50)	.04 (10)	.11 (27)	.19 (47)
8250	3895	.11 (27)	.21 (52)	.04 (10)	.11 (27)	.20 (50)
8500	4010	.12 (30)	.22 (55)	.04 (10)	.12 (30)	.21 (52)
8750	4130	.12 (30)	.23 (57)	.05 (12)	.12 (30)	.22 (55)
9000	4245	.13 (32)	.24 (60)	.05 (12)	.13 (32)	.24 (60)
9250	4365	.14 (35)	.25 (62)	.05 (12)	.14 (35)	.25 (62)
9500	4485	.14 (35)	.26 (65)	.05 (12)	.14 (35)	.26 (65)
9750	4600	.15 (37)	.27 (67)	.06 (15)	.15 (37)	.27 (67)
10000	4720	.15 (37)	.28 (70)	.06 (15)	.16 (40)	.29 (72)
10250	4840	.15 (37)	.29 (72)	.06 (15)	.16 (40)	.30 (75)
10500	4955	.16 (40)	.30 (75)	.07 (17)	.17 (42)	.31 (77)
10750	5075	.16 (40)	.31 (77)	.07 (17)	.18 (45)	.33 (82)
11000	5190	.16 (40)	.32 (80)	.07 (17)	.18 (45)	.34 (85)



## Ceiling Diffuser Air Resistance

Unit Size	Air Volume		Total Resistance - inches water gauge (Pa)			FD11 Flush Diffuser
			RTD11 Step-Down Diffuser		All Ends & Sides Open	
	cfm	L/s	2 Ends Open	1 Side/ 2 Ends Open	All Ends & Sides Open	
180 Model	5000	2360	.51 (127)	.44 (109)	.39 (97)	.27 (67)
	5200	2455	.56 (139)	.48 (119)	.42 (104)	.30 (75)
	5400	2550	.61 (152)	.52 (129)	.45 (112)	.33 (82)
	5600	2645	.66 (164)	.56 (139)	.48 (119)	.36 (90)
	5800	2735	.71 (177)	.59 (147)	.51 (127)	.39 (97)
	6000	2830	.76 (189)	.63 (157)	.55 (137)	.42 (104)
	6200	2925	.80 (199)	.68 (169)	.59 (147)	.46 (114)
	6400	3020	.86 (214)	.72 (179)	.63 (157)	.50 (124)
	6600	3115	.92 (229)	.77 (191)	.67 (167)	.54 (134)
	6800	3210	.99 (246)	.83 (206)	.72 (174)	.58 (144)
	7000	3305	1.03 (256)	.87 (216)	.76 (189)	.62 (154)
	7200	3400	1.09 (271)	.92 (229)	.80 (199)	.66 (164)
	7400	3490	1.15 (286)	.97 (241)	.84 (209)	.70 (174)
	7600	3585	1.20 (301)	1.02 (254)	.88 (219)	.74 (184)
210, 240 & 300 Models	6000	2830	.36 (90)	.31 (77)	.27 (67)	.29 (72)
	6500	3065	.42 (104)	.36 (90)	.31 (77)	.34 (85)
	7000	3305	.49 (122)	.41 (102)	.36 (90)	.40 (99)
	7500	3540	.51 (127)	.46 (114)	.41 (102)	.45 (112)
	8000	3775	.59 (147)	.49 (122)	.43 (107)	.50 (124)
	8500	4010	.69 (172)	.58 (144)	.50 (124)	.57 (142)
	9000	4245	.79 (196)	.67 (167)	.58 (144)	.66 (164)
	9500	4485	.89 (221)	.75 (186)	.65 (162)	.74 (184)
	10,000	4720	1.00 (249)	.84 (209)	.73 (182)	.81 (201)
	10,500	4955	1.10 (273)	.92 (229)	.80 (199)	.89 (221)
	11,000	5190	1.21 (301)	1.01 (251)	.88 (219)	.96 (239)

## Power Exhaust Fans Performance

Return Air System Static Pressure		Air Volume Exhausted	
in. w.g.	Pa	cfm	L/s
0	0	8630	4070
.05	12	8210	3875
.10	25	7725	3645
.15	37	7110	3355
.20	50	6470	3055
.25	62	5790	2730
.30	75	5060	2390
.35	87	4300	2030
.40	100	3510	1655
.45	112	2690	1270
.50	125	1840	870

## Guide Specifications

**General** - Furnish and install single package air to air DX mechanical cooling system or cooling and gas fired heating system, or heat pump complete with automatic controls. The single package unit shall be a standard product of a firm regularly engaged in the manufacture of heating-cooling equipment. The manufacturer shall have parts and service available throughout the U.S. and Canada. The equipment shall be shipped precharged, piped and wired internally ready for field connections. The manufacturer shall test operate system at the factory before shipment.

**Air Distribution** - Equipment shall be capable of bottom (down-flow) or side (horizontal) handling of conditioned air. Horizontal air shall require optional horizontal conversion kit.

**Approvals** - All electrical components shall have ETL and C.G.A. Listing. All wiring shall be in compliance with NEC and CEC.

**Equipment Warranty** - Aluminized steel heat exchangers shall have a limited warranty for a full ten years. (LGA Models). Compressors have a limited warranty for a full five years. All other components have a limited warranty for one year.

**Heating System (LGA Models)** - Tubular heat exchanger and inshot type gas burners shall be constructed of aluminized steel. Controls shall consist of direct spark ignition, electronic flame sensor controls, flame rollout switch, limit controls and automatic redundant dual gas valve with staging control and combusiton air proving switch on induced draft blower. Unit shall be available for use with LPG/propane as an option. Heat exchanger shall be removable for servicing. Complete service access shall be provided for controls and wiring. Shall be ETL/C.G.A. design certified for outdoor installation.

**Cooling System** - The coils shall be nonferrous construction with aluminum fins mechanically bonded to durable copper tubes. Coils shall be pressure leak tested. Compressor shall be resiliently mounted, have overload protection and crankcase heater(s). The refrigeration system shall have discharge, suction and liquid line service gauge ports, high pressure switch(es), low pressure switch(es), driers, freezestats, reversing valves and defrost control (LHA) and full refrigerant charge. All models shall have low ambient operation down to 0°F (-17.7°C). All models shall be rated in accordance with ARI Standard 340/360-93.

**Cabinet** - Shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal. Cabinet panels where conditioned air is handled shall be fully insulated to prevent sweating and minimize sound. Openings shall be provided for power connection entry. Indoor coil condensate drain extended outside cabinet shall be provided. Lifting holes shall be provided for rigging. Bottom power and gas (LGA) entry shall be provided.

**Service Access** - Cabinet panels shall be hinged with tool-less access for compressor/heating/controls, blower and air filter/economizer compartments.

**Supply Air Blowers** - Centrifugal supply air blower shall be driven by a belt drive motor with ball bearings and adjustable drive. Blower assembly shall slide out for servicing. Belt drive motor mount base shall permit ease of motor changeover and belt tension adjustment. Blower wheel shall be statically and dynamically balanced.

**Outdoor Coil Fan** - Direct drive propeller type outdoor coil fan shall discharge vertically and be direct driven. Fan motor shall have ball bearings and be permanently lubricated and inherently protected. Fan shall have a safety guard.

**Air Filters** - Disposable 2 inch (51 mm) thick pleated filters shall be furnished.

## Optional Accessories

**Additive Electric Heaters** - (LCA/LHA Models) Electric heaters shall be available for field installation. Heating elements shall be nichrome bare wire exposed directly to the air stream. Time delays shall bring the elements on and off in sequence with a time delay between each element. Limit controls shall provide overload and short circuit protection.

**Ceiling Diffusers** - Furnish and install a (flush or stepdown) optional combination ceiling supply and return air diffuser. Supply and return transitions shall be available, for field installation in the roof mounting frame, to provide duct connections to the diffuser.

**Coil Guards** - Furnish and install galvanized steel coil guards.

**Dirty Filter Switch** - Furnish and install pressure switch that indicates dirty filter.

**Disconnect** - Furnish and factory install unit disconnect switch.

**Economizer Section** - Furnish and install economizer complete with recirculated air dampers, outside air dampers and controls. Low leakage dampers shall ride in nylon bearings. The economizer section shall provide for the introduction of outdoor air for minimum ventilation and free cooling. Integrated economizer control shall allow compressors to cycle for additional cooling, as needed. Damper actuator shall be opposing gear driven, 24 volt, fully modulating design. Plug-in control board shall consist of adjustable minimum positioner, enthalpy setpoint and DIP switches for setting type of control log used. Economizer control options shall consist of sensible temperature, global, outdoor enthalpy and differential enthalpy (outdoor and return air). Optional outdoor air hood (required) with filters shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal. Economizer shall be available for field installation.

**Gravity Exhaust Dampers** - Pressure operated dampers shall be available for field installation. Extruded aluminum dampers shall prevent blow-back and outdoor air infiltration during off cycle.

**Hail Guards** - Furnish and install heavy gauge, painted steel hail guards.

**Horizontal Gravity Exhaust Dampers** - Pressure operated dampers shall be available for field installation in the return air duct. Extruded aluminum dampers shall prevent blow-back and outdoor air infiltration during off cycle.

**Indoor Air Quality Sensor** - Furnish and field install sensor to monitor CO<sub>2</sub> levels, relays information to Integrated Module Control which adjusts economizer dampers proportionately to the pollutant level.

**Outdoor Air Damper Section** - Optional outdoor dampers shall be available to provide outdoor air requirements of up to 25%. Models shall be available for manual or automatic operation. Dampers shall be opposing gear driven design. Motorized damper section shall install internal to the unit. Optional outdoor air hood (required) with filters shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal. Dampers shall be available for field installation.

**Power Exhaust Fan** - Shall be available for all models with economizer (down-flow applications only). Direct drive propeller type fan shall exhaust air through optional gravity exhaust damper (required). Motor shall be overload protected. Fan shall be field installed between economizer and gravity exhaust dampers.

## Guide Specifications

**Roof Mounting Frame** - Furnish and install a steel roof mounting frame for bottom discharge and return air duct connection. It shall mate to the bottom discharge and return air duct connection. It shall mate to the bottom perimeter of the equipment. When flashed into the roof it shall make a unit mounting curb and provide weatherproof duct connection and entry into the conditioned air. Flashing shall be the responsibility of the roofing contractor. Frame shall be approved by U.S. National Roofing Contractors Association.

**Service Outlets** - Furnish and factory install dual 115 volt, 15 amp GFCI type service outlets. Wiring shall be field provided.

**Smoke Detectors** - Furnish and field install photoelectric type smoke detector in either or both return air section and supply air section.

**Terminal Block** - Shall be required for units without disconnect switch but with single point power supply and electric heat.

**Unit Fuse Block** - Shall be required for units with single point power supply and electric heat.

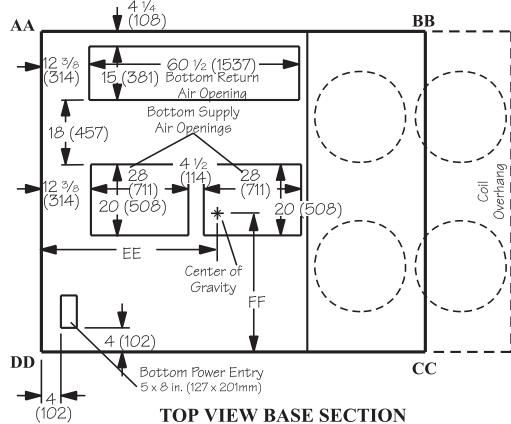
## Dimensions - LCA Model - inches (mm)

Shown with Electric Heat, Economizer Dampers, Power Exhaust Fan, Convenience Outlet, Disconnect  
Corner Weights - lbs. (kg)

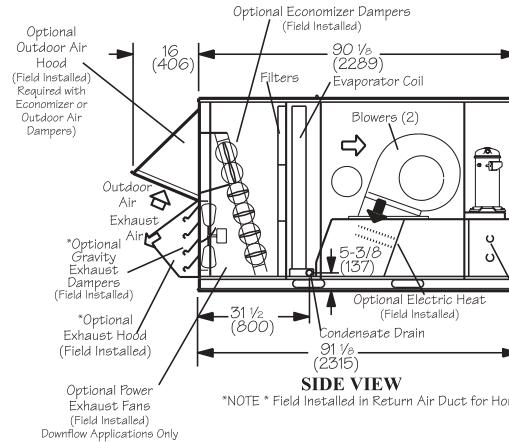
Model No.	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
LCA180 Base Unit	450	204	460	209	620	281	600	272
LCA180 Max. Unit	570	259	580	263	680	308	660	299
LCA210 Base Unit	470	213	460	209	640	290	650	295
LCA210 Max. Unit	600	272	590	268	700	318	730	331
LCA240/300 Base Unit	480	218	510	231	700	318	660	299
LCA-240300 Max. Unit	600	272	600	272	730	331	740	336

Base Unit – The standard unit with NO OPTIONS.

Max. Unit – The standard unit with ALL OPTIONS installed. (Economizer, Power Exhaust Fans, Controls)

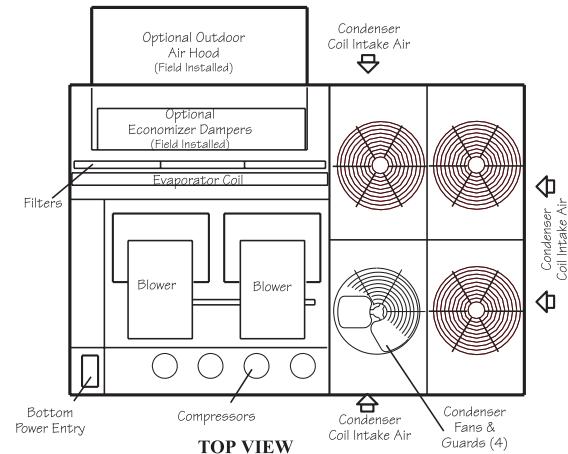


TOP VIEW BASE SECTION

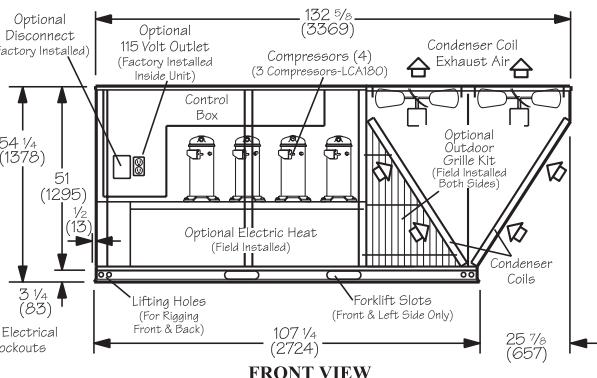


\*NOTE \* Field Installed in Return Air Duct for Horizontal Applications.

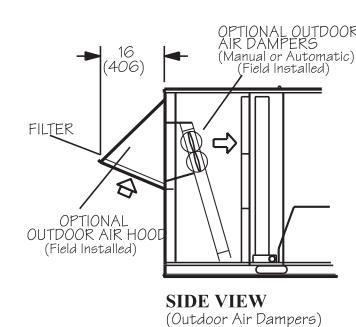
Downflow Applications Only



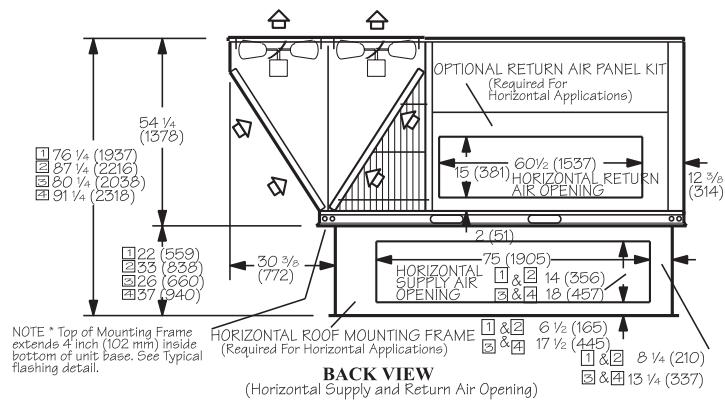
TOP VIEW



FRONT VIEW



SIDE VIEW  
(Outdoor Air Dampers)



BACK VIEW  
(Horizontal Supply and Return Air Opening)

[1] LARMFH18/24-26 [2] LARMFH18/24-37 [3] LARMFH30/36-30 (used with 300S Models Only) [4] LARMFH30/36-40 (used with 300S Models Only)

[1] LARMFH18/24-26 [2] LARMFH18/24-37 [3] LARMFH30/36-30 (used with 300S Models Only) [4] LARMFH30/36-40 (used with 300S Models Only)

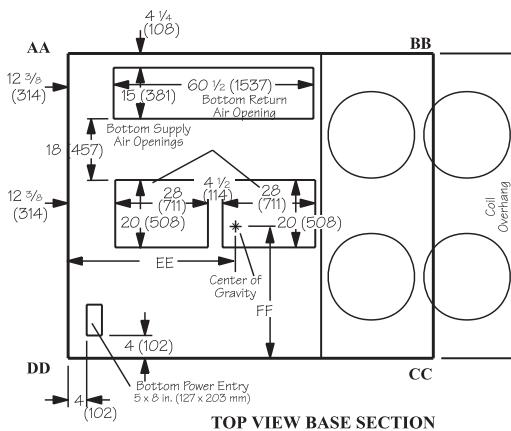
## Dimensions - LGA Model - inches (mm)

Shown with Electric Heat, Economizer Dampers, Power Exhaust Fan, Convenience Outlet, Disconnect  
**Corner Weights - lbs. (kg)**

Model No.	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
LGA180 Base Unit	470	213	470	213	650	295	650	295
LGA180 Max. Unit	580	263	590	268	700	318	690	313
LGA210 Base Unit	480	218	460	209	680	308	710	322
LGA210 Max. Unit	610	277	590	268	730	331	750	304
LGA240/300 Base Unit	490	222	520	236	740	336	710	322
LGA240/300 Max. Unit	610	277	610	277	750	304	770	349

Base Unit – The standard unit with NO OPTIONS.

Max. Unit – The standard unit with ALL OPTIONS installed. (Economizer, Power Exhaust Fans, Controls)

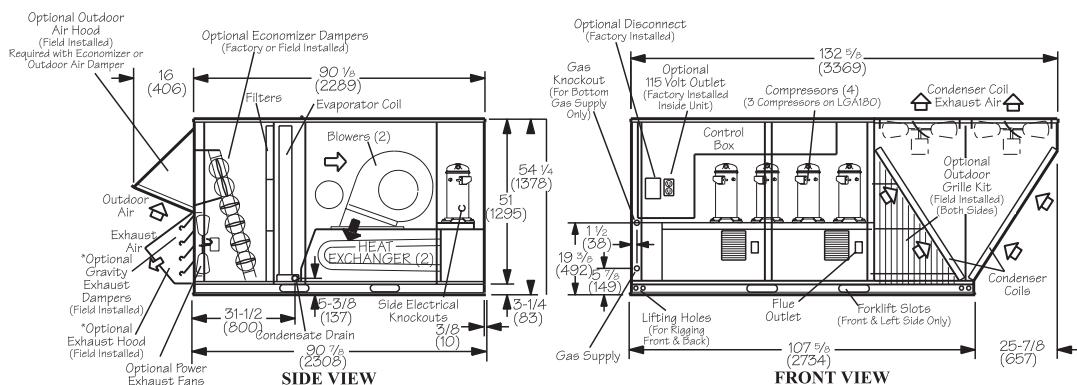
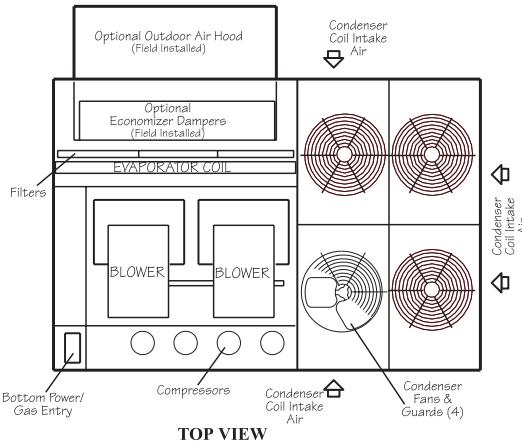


## Center of Gravity - inches (mm)

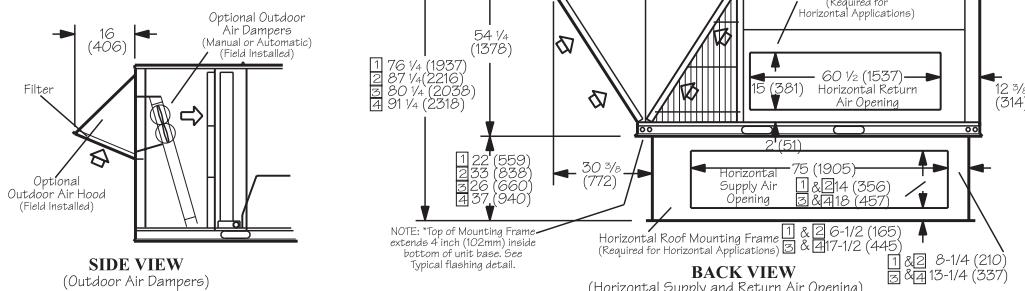
Model No.	EE		FF	
	inch	mm	inch	mm
LGA180 Base Unit	50	1270	38-1/2	978
LGA180 Max. Unit	54	1372	41-1/2	1054
LGA210 Base Unit	52-1/2	1334	37	940
LGA210 Max. Unit	52-1/2	1334	41	1041
LGA240/300 Base Unit	54-1/2	1384	37-1/2	953
LGA240/300 Max. Unit	53	1346	40-1/2	1029

Base Unit – The standard unit with NO OPTIONS.

Max. Unit – The standard unit with ALL OPTIONS installed. (Economizer, Power Exhaust Fans, Controls)



\*NOTE \* Field Installed in Return Air Duct for Horizontal Applications.



BACK VIEW (Horizontal Supply and Return Air Opening)

## Dimensions - LHA Model - inches (mm)

Shown with Electric Heat, Economizer Dampers, Power Exhaust Fan, Convenience Outlet, Disconnect  
Corner Weights - lbs. (kg)

Model No.	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
LHA180 Base Unit	550	249	440	200	580	263	720	327
LHA180 Max. Unit	670	304	510	231	590	268	790	358
LHA240 Base Unit	570	259	460	209	580	263	730	331
LHA240 Max. Unit	690	313	520	236	600	272	790	358

Base Unit – The standard unit with NO OPTIONS.

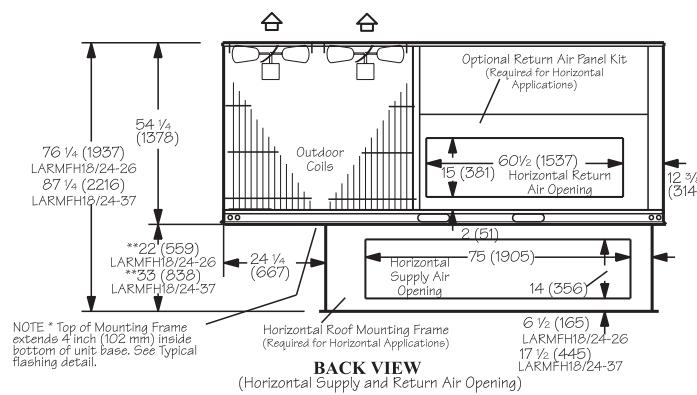
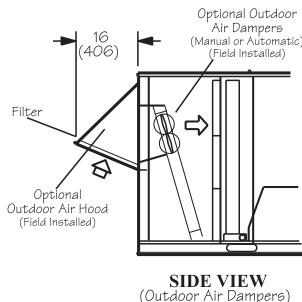
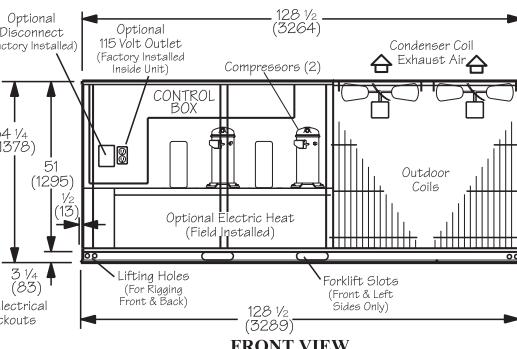
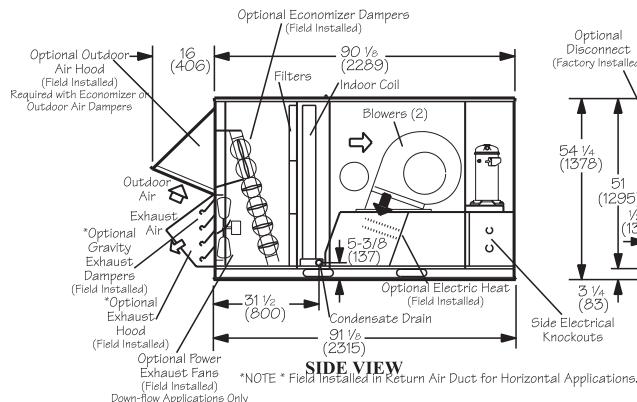
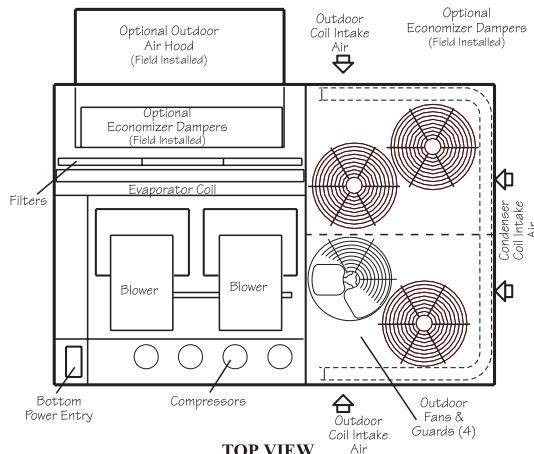
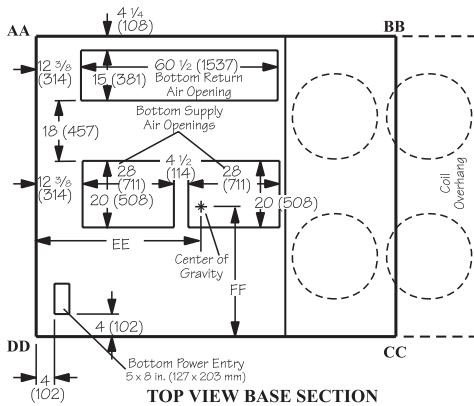
Max. Unit – The standard unit with ALL OPTIONS installed. (Economizer, Power Exhaust Fans, Controls)

## Center of Gravity - inches (mm)

Model No.	EE		FF	
	inch	mm	inch	mm
LHA180 Base Unit	58	1473	39-1/2	1003
LHA180 Max. Unit	56	1422	42	1067
LHA240 Base Unit	57-1/2	1461	40	1016
LHA240 Max. Unit	55-1/2	1410	42-1/2	1080

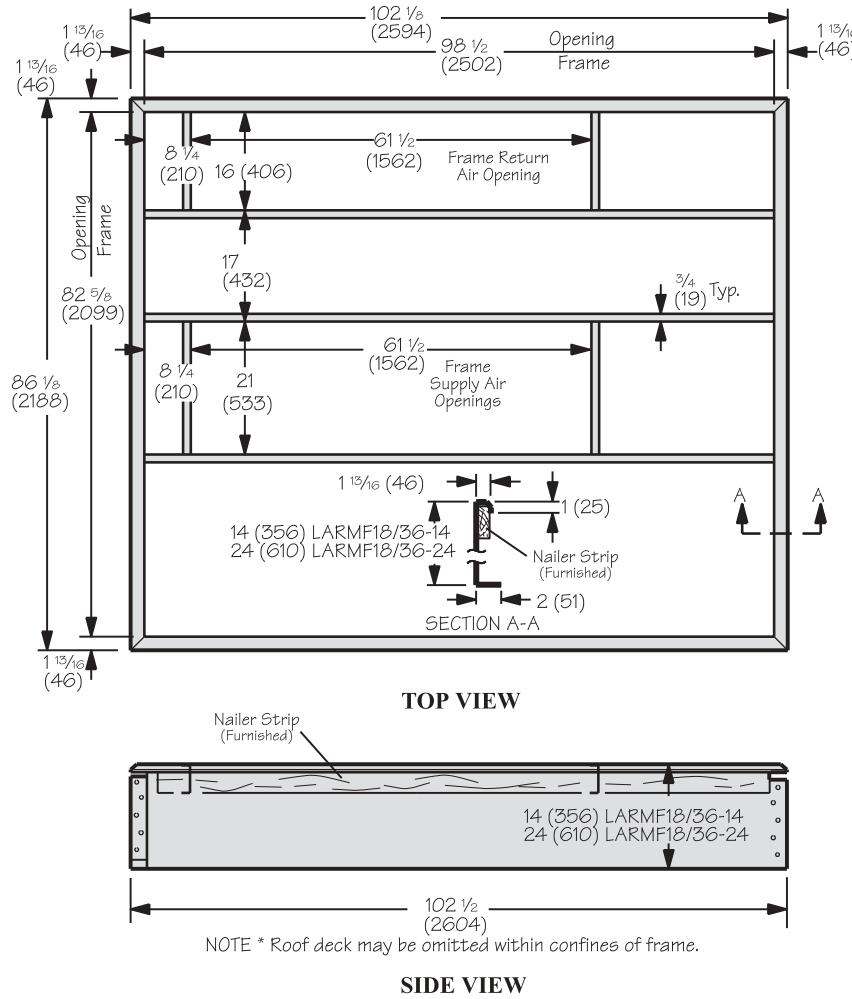
Base Unit – The standard unit with NO OPTIONS.

Max. Unit – The standard unit with ALL OPTIONS installed. (Economizer, Power Exhaust Fans, Controls)



## Accessory Dimensions - inches (mm)

LARMF18/36-14 & LARMF18/36-24 - Roof Mounting Frame (Double Duct Opening)



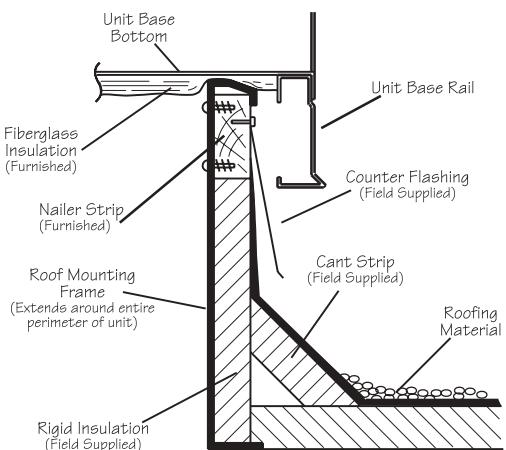
### Roof Mounting Frame Specifications

Roof Mounting frame is rigid enough to be spanned over its entire length or cantilevered if supported on both sides of center of gravity.

Roof Mounting Frame	LARMF18/36-14	LARMF18/36-24
*Moment of inertia ( $I$ ) (in. <sup>4</sup> ) (cm <sup>4</sup> )	39 (1634)	160 (6639)
*Section modulus $I/C$ (in. <sup>3</sup> ) (cm <sup>3</sup> )	5.5 (90)	13.1 (512)
Frame weight (lb/ft) (kg/m) of length	5.5 (8.2)	8.5 (12.7)
Design strength (psi) (kPa)	20,000 (137,900)	

\*Includes both sides of frame

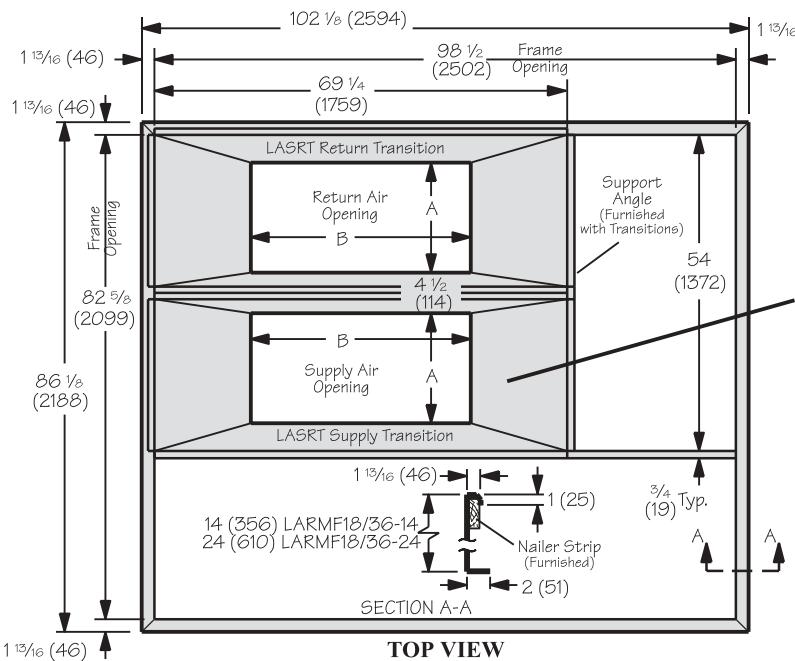
### Typical Flashing Detail for LARMF18/36 Roof Mounting Frame



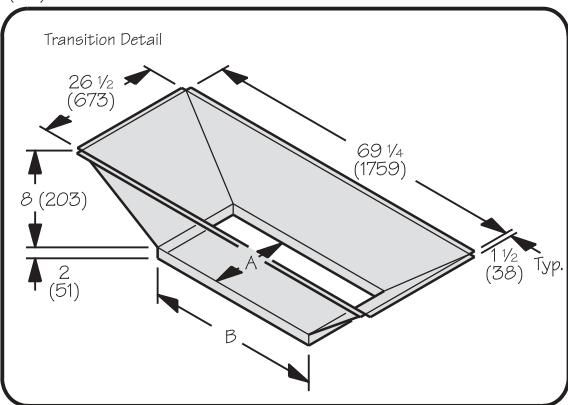
## Accessory Dimensions - inches (mm)

**LARMF18/36-14 and LARMF18-36-24 Roof Mounting Frames with LASRT36 Supply & Return Air Transitions for FD11 & RTD11 Ceiling Diffusers**

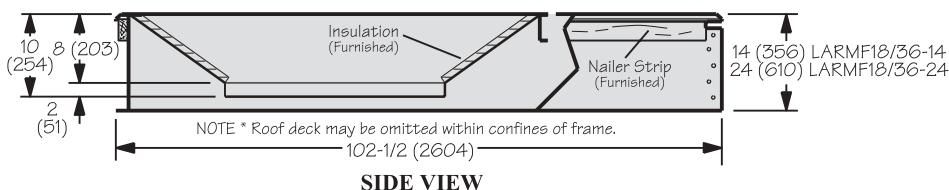
Model No.	A		B	
	inch	mm	inch	mm
LASRT18	18	457	36	914
LASRT21/24	24	610	48	1219



TOP VIEW



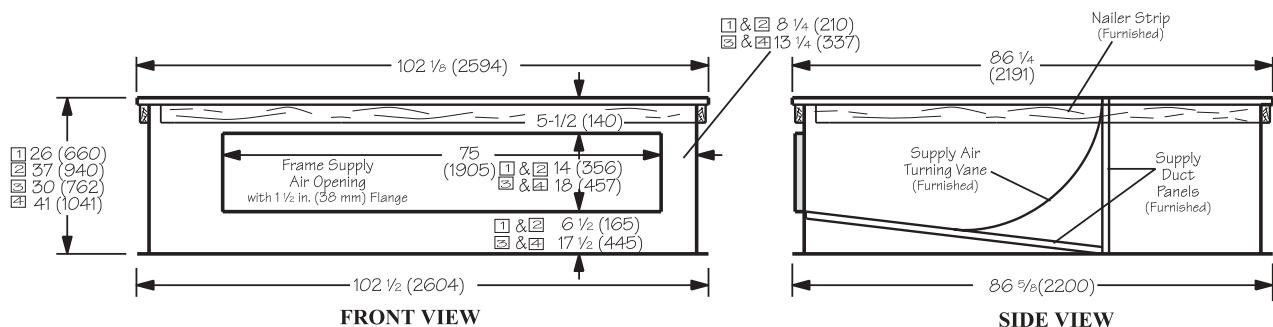
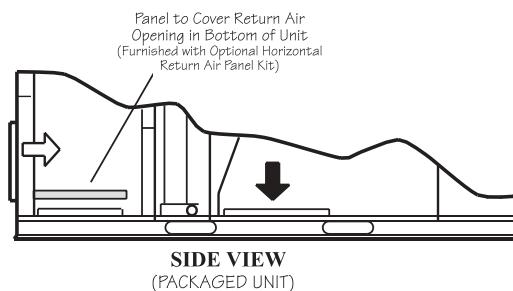
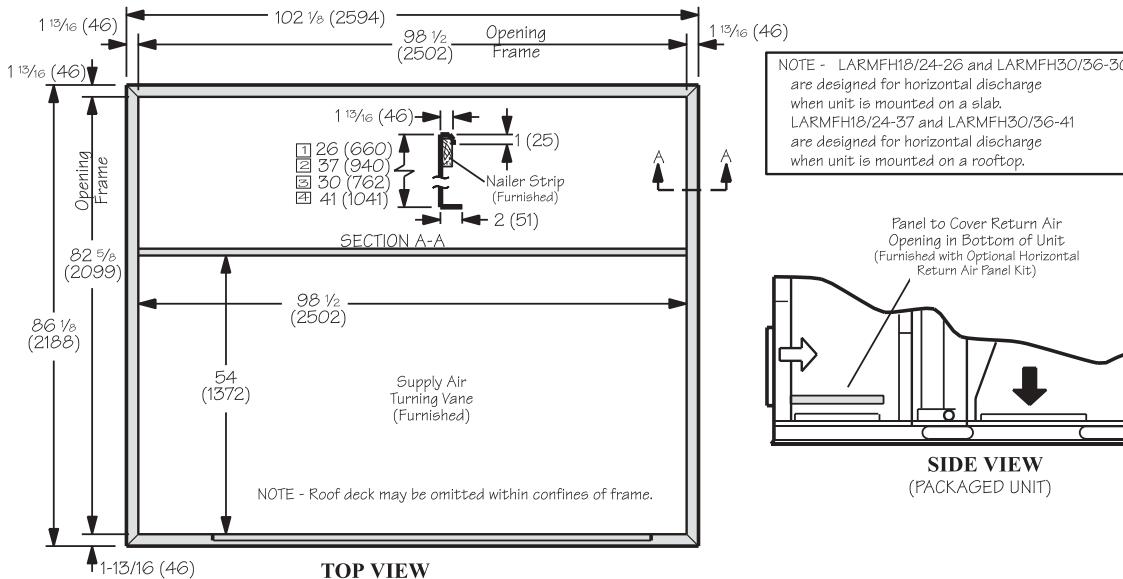
TRANSITION OPENING SIZES



SIDE VIEW

## Accessory Dimensions - inches (mm)

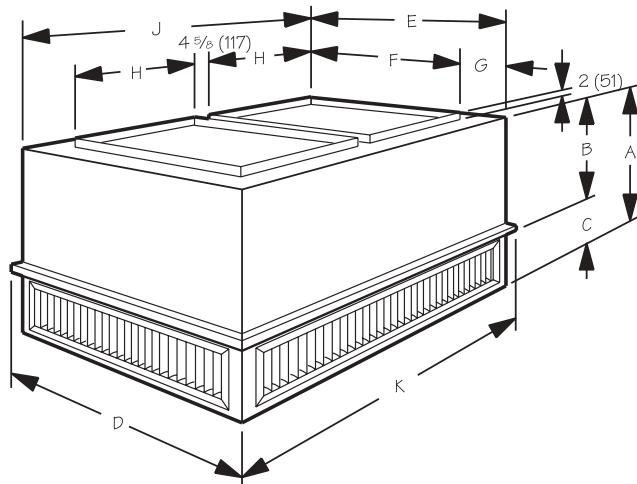
**LARMFH18/24 & LARMFH30/36 Horizontal Roof Mounting Frames (Requires Optional Horizontal Return Air Panel Kit)**



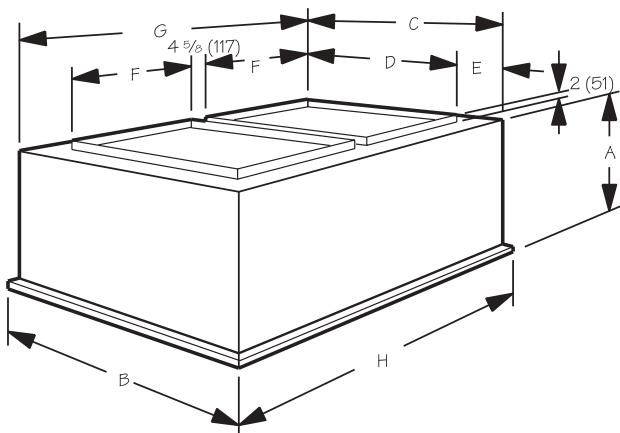
LARMFH18/24-26    LARMFH18/24-37    LARMFH30/36-30 (used with 300S/360 Models)    LARMFH30/36-40 (used with 300S/360 Models)

## **Accessory Dimensions - inches (mm)**

**RTD11-185 & RTD11-275  
Step-Down Ceiling Diffuser**



**FD11-185 & FD11-275  
Flush Ceiling Diffuser**



Model No.	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RTD11-185	34	864	23-7/8	606	10-1/8	257	47-5/8	1210	45-5/8	1159
RTD11-275	40	1016	28-7/8	7225	11-1/8	283	59-5/8	1514	57-7/8	1470

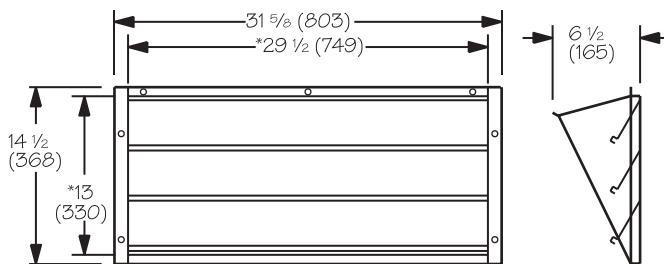
Model No.	F		G		H		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
RTD11-185	36	914	4-13/16	122	18	457	45-5/8	1159	47-5/8	1210
RTD11-275	48	1219	4-13/16	122	24	610	57-5/8	1464	59-5/8	1521

Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
FD11-185	30-1/8	613	47-5/8	1210	45-5/8	1159	36	914
FD11-275	36-1/8	918	59-5/8	1514	57-5/8	1464	48	1219

Model No.	E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm
FD11-185	4-13/16	122	18	457	45-5/8	1159	47-5/8	1210
FD11-275	4-13/16	122	24	610	57-5/8	1464	59-5/8	1521

## **LAGEDH18/24 Horizontal Gravity Exhaust Dampers**

**Field Installed in Return Air Duct (two furnished per order no.)**

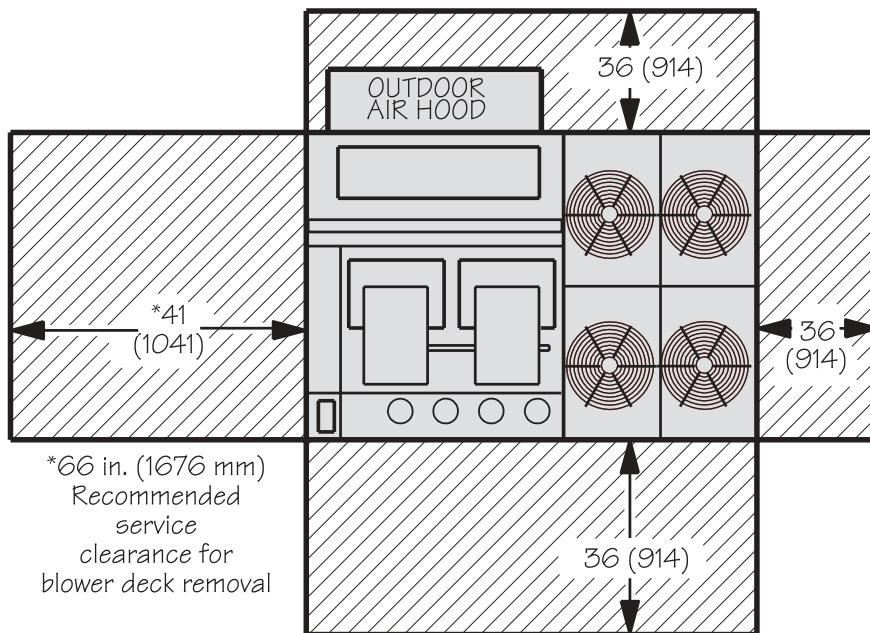


**FRONT VIEW**

**SIDE VIEW**

\*NOTE \* Opening size required in return air duct.

## Installation Clearances - inches (mm)



NOTE \* Top Clearance Unobstructed.

NOTE \* Entire perimeter of unit base requires support when elevated above mounting surface.

All specifications are subject to change  
without notice.



Armstrong Air Conditioning Inc.  
421 Monroe Street • Bellevue, OH 44811  
(419) 483-4840

