LENNOX®

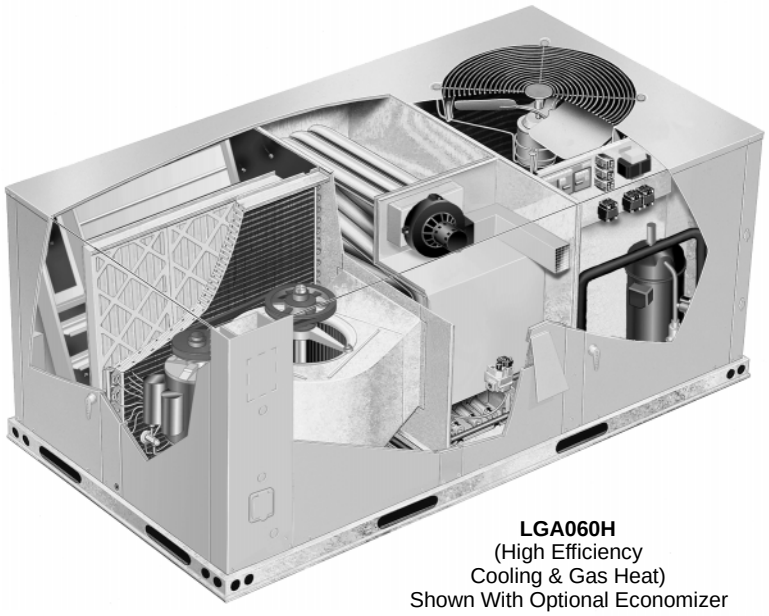
ENGINEERING DATA

PACKAGED L SERIES

LCA/LGA

036, 042, 048, 060 and 072 Models
3 to 6 Ton (10.5 to 21.0 kW)
"LCA" Packaged Cooling and Electric Heat
"LGA" Packaged Cooling and Gas Heat
Cooling Capacity - 35,800 to 72,000 Btuh (10.5 to 21.1 kW)
Gas Input Heating Capacity - 78,000 to 125,000 (22.8 to 36.6 kW)
Optional Electric Heat - 7 to 30 kW

Bulletin No. 210232
May 1999
Supersedes July 1998



LGA060H
(High Efficiency
Cooling & Gas Heat)
Shown With Optional Economizer

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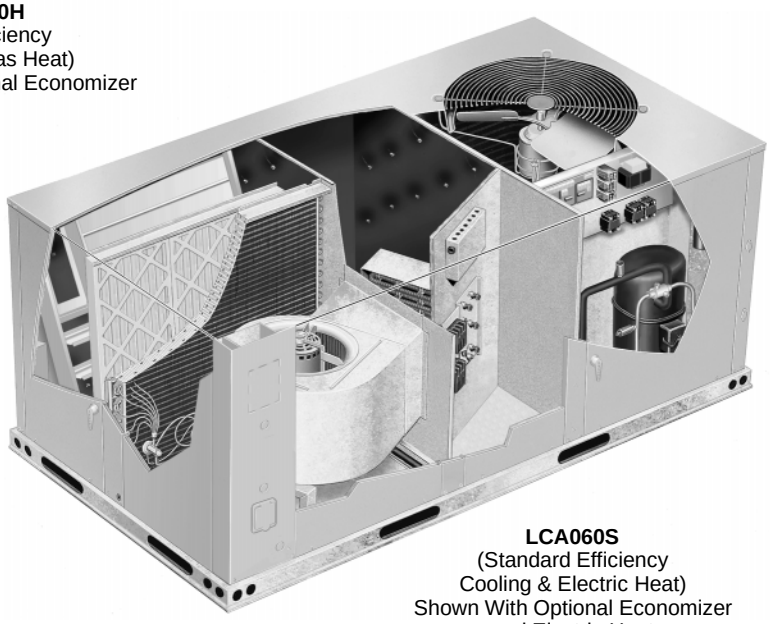
CSA VERIFIED ENERGY PERFORMANCE



LCA060S
(Standard Efficiency
Cooling & Electric Heat)
Shown With Optional Economizer
and Electric Heat

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NOTE - Due to Lennox' ongoing committment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.

FEATURES - ALL MODELS

Item	LCA/LGA036	LCA/LGA042	LCA/LGA048	LCA/LGA060	LCA/LGA072
Air Flow Choice — Bottom (down-flow) or horizontal (side) supply and return air	Standard	Standard	Standard	Standard	Standard
Bottom Power Entry — For electrical lines	Standard	Standard	Standard	Standard	Standard
Cabinet — Heavy gauge galvanized steel, fully insulated, powdered enamel paint finish, large removeable access panels, electrical inlets in cabinet base and electric heat end panel (LCA only), easy access control area with factory installed controls, low voltage terminal strip, unit lifting holes in base rail	Standard	Standard	Standard	Standard	Standard
Cabinet Access Panels — 1 heating area access panel, 2 blower access panels, 1 hinged compressor/controls access panel and 1 hinged air filter/economizer access panel with tool-less access handles, gaskets on all edges for tight seal, blower access panels and air filter/economizer access panel are insulated with fiberglass insulation.	Standard	Standard	Standard	Standard	Standard
Coil Construction — Copper tube construction, ripple-edged enhanced aluminum fins, flared shoulder tubing connections, silver soldered construction, factory tested, indoor coil drain connection extends outside of unit cabinet	Standard	Standard	Standard	Standard	Standard
Compressor Crankcase Heater	Standard	Standard	Standard	Standard	Standard
Filters — Disposable 2 inch (51 mm) pleated commercial grade	Standard	Standard	Standard	Standard	Standard
Filter Access — Hinged filter door with tool-less access handles	Standard	Standard	Standard	Standard	Standard
Integrated Modular Control (IMC) — Solid-state board contains all controls and control relays to operate unit Built-in Functions Include: **Blower On/Off Delay** **Built-in Control Parameter Defaults -** ensures proper unit operation when power is restored after power failure **Service Relay Output** **Defrost Control** - heat pump models only **Dehumidification Control -** monitors humidity levels, will allow both heating and cooling to operate at the same time, as needed, requires optional field installed Dehumidistat **Dirty Filter Switch Input** - requires optional field installed Dirty Filter Switch **Economizer Control -** four modes of operation (outdoor enthalpy, differential enthalpy, temperature and global) **Electric Heat Staging -** regulates electric heat during building warm-up **ETM Compatible -** various modules (see factory or field installed accessories) **Extensive Unit Diagnostics -** 80 diagnostic codes **Permanent Diagnostic Code Storage** **Field Changeable Control Parameters** - 114 different parameters **Gas Valve Delay Between First and Second Stage** **Indoor Air Quality Input -** monitors CO_2 levels, adjusts economizer dampers as needed (four modes of operation), requires optional field installed Indoor Air Quality (CO_2) Sensor **Low Ambient Controls** - Allows unit cooling operation down to 0°F (-17.8°C) **Minimum Run Time** **Night Setback Mode -** adjusts setpoint, closes outdoor air dampers and operates blower on demand, may be customized for special requirements **Return Air Temperature Limit Control** **Smoke Alarm Mode -** four modes of operation **"Strike Three" Low Pressure Control -** protects system from low suction pressure while eliminating nuisance faults **Thermostat Bounce Delay** **Three Digit Display -** Displays: outdoor temperature, supply air temperature, return air temperature (temperatures in °F or °C), economizer damper position, Indoor Air Quality, control parameters. **Two Stage Heat/Three Stage Cool Thermostat Compatible** **Warm-up Mode -** four modes of operation	Standard	Standard	Standard	Standard	Standard
Outdoor Coil Fan — PVC coated fan guard furnished	Standard	Standard	Standard	Standard	Standard
Outdoor Coil Fan Motor — Overload protected, permanently lubricated, equipped with ball bearings, shaft up, wire basket mount	Standard	Standard	Standard	Standard	Standard
Supply Air Blower Choice — Direct drive or belt drive (belt drive - ball bearings and adjustable pulley for speed change), forward curved blades, blower wheel statically and dynamically balanced.	Direct Drive Standard	Direct Drive Standard	Direct Drive Standard	Direct Drive Standard	Belt Drive Standard
Supply Air Motor (Standard Efficiency) — Overload protected, equipped with ball bearings (belt drive) or sleeve bearings (direct drive)	Standard	Standard	Standard	Standard	Standard
Transformer — 70VA transformer with built-in circuit breaker	Standard	Standard	Standard	Standard	Standard

FEATURES - LCA MODELS

Item	LCA/LGA036	LCA/LGA042	LCA/LGA048	LCA/LGA060	LCA/LGA072
Approvals — U.L. and U.L.C. listed, efficiency rating verified by C.S.A., components bonded for grounding to meet safety standards for servicing required by U.L., U.L.C. and National and Canadian Electrical Codes	Standard	Standard	Standard	Standard	Standard
ARI Ratings — Ratings in accordance with ARI Standard 210/240-94 and certified to ARI	Standard	Standard	Standard	Standard	Standard
Compressors — Reciprocating type, resiliently mounted on rubber grommets	"S" Models	"S" Models	"S" Models	"S" Models	- - - -
Compressors — Copeland® Compliant Scroll™ for high efficiency, resiliently mounted on rubber grommets	"H" Models	"H" Models	"H" Models	"H" Models	"S" Models & "H" Models
Outdoor Coil Construction — Formed type	Standard	Standard	Standard	Standard	Standard
Refrigeration System — Consists of: compressor, condenser coil and direct drive fan, evaporator coil and belt or direct drive blower, expansion valve with replaceable thermostatic element, high capacity drier, high pressure switch, low pressure switch, full refrigerant charge, crankcase heater, freezestat (prevent coil freeze-up during low ambient operation or loss of air) and low ambient switch for operation down to 0°F (-18°C)	Standard	Standard	Standard	Standard	Standard
Warranty — Limited five years compressor, limited one year all other covered components, see limited warranty certificate included with unit for details	Standard	Standard	Standard	Standard	Standard

FEATURES - LGA MODELS

Item	LCA/LGA036	LCA/LGA042	LCA/LGA048	LCA/LGA060	LCA/LGA072
Approvals — U.L./U.L.C. certified as combination heating/cooling unit for outdoor installation, efficiency rating verified by C.S.A., bonded for grounding to meet safety standards for servicing required by U.L./U.L.C. and National and Canadian Electrical Codes	Standard	Standard	Standard	Standard	Standard
ARI Ratings — Ratings in accordance with ARI Standard 210/240-94 and certified to ARI	Standard	Standard	Standard	Standard	Standard
Compressors — Reciprocating type, resiliently mounted on rubber grommets	"S" Models	"S" Models	"S" Models	"S" Models	- - - -
Compressors — Copeland® Compliant Scroll™ for high efficiency, resiliently mounted on rubber grommets	"H" Models	"H" Models	"H" Models	"H" Models	"S" Models & "H" Models
Fan and Limit Controls — Factory installed, 90 second fan "on" time delay, dual limit controls (primary and secondary) with fixed temperature setting	Standard	Standard	Standard	Standard	Standard
[1] **Heat Exchanger —** Tubular construction, aluminized steel, life cycle tested	Standard	Standard	Standard	Standard	Standard
Outdoor Coil Construction — Formed type	Standard	Standard	Standard	Standard	Standard
Heating System — 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	Standard	Standard	Standard	Standard	Standard
Refrigeration System — Consists of: compressor, condenser coil and direct drive fan, evaporator coil and belt or direct drive blower, expansion valve with replaceable thermostatic element, high capacity drier, high pressure switch, low pressure switch, full refrigerant charge, crankcase heater, freezestat (prevent coil freeze-up during low ambient operation or loss of air) and low ambient switch for operation down to 0°F (-18°C)	Standard	Standard	Standard	Standard	Standard
Warranty — Limited ten years heat exchanger, limited five years compressor, one year all other covered components, see limited warranty certificate included with unit for details	Standard	Standard	Standard	Standard	Standard

[1] Optional stainless steel heat exchanger required if mixed air temperature is below 45° (7°).

REQUIRED OPTIONS - ITEMS MUST BE ORDERED AND FACTORY INSTALLED

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

Supply Air Motor — Order one, belt drive or direct drive (See Blower Data Table for specifications):

Standard Efficiency — Overload protected, equipped with ball bearings (belt drive motors) or sleeve bearings (direct drive motors)

High Efficiency — Overload protected, equipped with ball bearings (belt drive motors only), 3 phase only

Drive Kit — Order one, belt drive only, see Drive Kit Specifications Table

Gas Input (LGA Models Only) — Order one:

78,000 Btuh (22.8 kW) Standard Heat Gas Input

92,000/125,000 Btuh (26.9/36.6 kW) Dual Heat Gas Input

125,000 Btuh (36.6 kW) High Heat Gas Input

OPTIONAL ACCESSORIES

FACTORY INSTALLED ONLY

Item	LCA/LGA036	LCA/LGA042	LCA/LGA048	LCA/LGA060	LCA/LGA072
Cold Weather Kit (Canada Only) — Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°F (-40°C). C.G.A. certified to allow operation of unit down to -60°F (-51°C) **(LGA Models Only)**	Factory				
Corrosion Protection — Phenolic epoxy coating, applied to condenser coils (with painted base section) and evaporator coils (with painted base and painted blower housings), factory applied to either section or both sections	Factory				
[1] **Disconnect Switch—** Accessible from outside of unit, spring loaded weatherproof cover furnished	Factory				
Service Outlets (2) — 115v ground fault circuit interrupter (GFCI) type	Factory				
Service Valves - Fully serviceable brass valves installed in discharge & liquid lines	Factory				
[2] **Stainless Steel Heat Exchanger (LGA Models)**	Factory				

FACTORY OR FIELD INSTALLED

Item		LCA/LGA036	LCA/LGA042	LCA/LGA048	LCA/LGA060	LCA/LGA072
Blower Proving Switch -Monitors blower operation, shuts down unit if blower fails		**18L89**				
Condensate Drain Trap - field installed only, may be factory enclosed to ship with unit	PVC	**37K69**				
	Copper	**45K67**				
Control Systems — See pages 5-9 for complete listing.		See pages 5 - 9				
Dirty Filter Switch - Senses static pressure increase indicating dirty filter condition		**30K48**				
Down-Flow Gravity Exhaust Dampers — Allows relief of excess air, aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished, see below for damper hood - Net Weight		LAGED03/07 - 8 lbs. (4 kg)				
Down-Flow Gravity Exhaust Damper Hood - Field installed only - Net Weight		**28L51** - 15 lbs. (7 kg)				
Economizer — 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, outdoor air hood must be ordered separately (see below), optional down-flow gravity exhaust dampers available (see above), choice of economizer controls (see below) - Net Weight		LAREMD03/07 - 34 lbs. (15 kg)				
Economizer Control Choice — **Sensible Control —** Furnished on IMC board in unit, uses outdoor air sensor furnished with unit to measure outdoor air temperature and control damper position **(Furnished)** **Global Control —** 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)** **Outdoor Enthalpy Control —** Adjustable enthalpy sensor, senses outdoor air enthalpy for economizer control**,** 0 to 100% outdoor air **Differential Enthalpy Control —** Two solid-state enthalpy sensors allow selection between outdoor air and return air (whichever has lowest enthalpy)		**(16K96)** Outdoor **(16K97)** Differential				
Electric Heat — Factory or field installed, helix wound nichrome elements, time delay for element staging, individual element limit controls, wiring harness, may be two-stage controlled, requires Unit/Electric Heat Fuse Block, LBT2 Terminal Block and Electric Heat Sub-Fuse Box (LCA Models)		See Electric Heat Data Tables Pages 18 - 20				
Electric Heat Sub-Fuse Box — Required with electric heat		See Electric Heat Data Tables, Pages 18 - 20				
Unit/Electric Heat Fuse Block — Required with Electric Heat, Mounting screws furnished, factory or field installed in Sub-Fuse Box		See Optional Electric Heat Accessories Table (LCA Models), Page 17				
Electric Heat LTB2 Terminal Block — Required with electric heat						
Outdoor Air Damper Section — Linked mechanical dampers, 0 to 25% (fixed) outdoor air adjustable, installs in unit for down-flow applications, outdoor air hood must be ordered separately (see below) - Net Weight	**Automatic** - fully modulating spring return damper motor with plug in connection	LAOADM03/07 - 24 lbs. (11 kg)				
	Manual - Slide damper	LAOAD03/07 - 4 lbs. (2 kg)				
Outdoor Air Hood — Required with LAREMD03/07 Economizer, LAOAD03/07 and LAOADM03/07 Outdoor Air Damper Sections, one cleanable aluminum mesh fresh air filters furnished - Net Weight		LAOAH03/07 - 18 lbs.(8 kg) Filter size - 16 x 25 x1 in. (406 x 635 x 25 mm)				
Smoke Detector — Photoelectric type, installed in supply air section or return air section or both sections		**41L85** - Supply **41L86** - Return				

[1] Not available for LCA models with field installed electric heat or LCA 208/230v models with 30 kW electric heat.
[2] Required if mixed air temperature is between 30 and 45° (-1 and 7 °C).

OPTIONAL ACCESSORIES - CONTINUED

FIELD INSTALLED ONLY

Item		LCA/ LGA036	LCA/ LGA042	LCA/ LGA048	LCA/ LGA060	LCA/LGA072
Aspiration box — for duct mounting of Indoor Air Quality Sensor		47N18				
Coil Guards — Painted, galvanized steel wire guards to protect outdoor coil. Not used with Hail Guards		28L52				
Dehumidistat - Monitors humidity levels, reports to the IMC board which allows the heating and cooling to run simultaneously as needed to lower indoor humidity for process air applications.		65F86				
Diffusers - 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	**Step-Down -** double deflection louvers	RTD9-65 - 67 lbs. (30 kg)				RTD11-95 88 lbs. (40 kg)
	Flush - fixed blade louvers	FD9-65 - 37 lbs.(17 kg)				FD11-95 75 lbs.(34 kg)
Down-flow Roof Mounting Frame — Nailer strip furnished, mates to unit, U.S. National Roofing Contractors Approved, shipped knocked down - Net Weight	14 inch (356 mm) height	LARMF03/07-14 - 100 lbs. (45 kg)				
	24 inch (610 mm) height	LARMF03/07-24 - 172 lbs. (78 kg)				
Hail Guards — Constructed of heavy gauge steel, painted to match cabinet, helps protect outdoor coils from hail damage. Not used with Coil Guards		28L53				
[1] **Horizontal Gravity Exhaust Dampers —** Allows relief of excess air, aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, field installed in return air duct, bird screen and hood furnished - Net Weight		LAGEDH03/15 - 8 lbs. (4 kg)				
IMC Software and Manual Only — Interfaces individual or networked (up to 32 units) IMC to PC for field service and diagnostics. Program includes: setup, main status of unit, main status of network, error code download, economizer status, equipment configuration, ECTO parameter edit and two unit test screens (one for simulating a room thermostat demand and one for controlling individual control outputs). System requirements: PC with DOS 3.3 or higher, hard drive and free COM port. Color monitor is recommended.		32K22				
IMC Software and PC Interface Kit — Includes IMC/PC Interface Kit and IMC Software Kit.		86K84				
IMC/PC Interface Kit Only — RS-485 to RS-232 converter and cable for connecting IMC to PC. Includes instruction manual.		28K56				
Indoor Air Quality (CO_2) Sensor — Monitors CO_2 levels, reports to Integrated Modular Control (IMC) board which adjusts economizer dampers as needed		93J69				
LPG/Propane Kits — Conversion kit to field change over LGA units from Natural Gas to LPG/Propane		78K (**40L56**), 125K (**33L00**), 92/125K (**32L99**)				
Power Exhaust Fan — 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	Model Number - Net Weight	LAPEF03/07 - 69 lbs. (31 kg)				
	Dia. - in. (mm) No. Blades	14 (36) — 4				
	Total air volume - cfm (L/s)	1900 (895)				
	Motor Horsepower (W)	1/2 (375)				
	Total Watts Input	385				
Transitions (Supply and Return) — Used with diffusers, installs in roof mounting frame, galvanized steel construction, flanges furnished for duct connection, fully insulated - Net Weight		LASRT03/06 28 lbs. (13 kg)				LASRT07 28 lbs. (13 kg)

OPTIONAL DDC TEMPERATURE CONTROL SYSTEMS (FACTORY OR FIELD INSTALLED)

System and Component Description	Field Installed Catalog No.
AMERICAN AUTOMATRIX KIT	
Control module/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/Wiring Harness — Stand alone control of all heating cooling and economizer functions, various operations modes (including: occupied, unoccupied), 8 universal inputs, momentary override, indoor air quality control, alarm monitoring of: sensors, airflow, economizer, dirty filter, heating/cooling operation, cooling limit.	59K22
Sensor — Room temperature	49K84
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	30K48
ANDOVER INFINITY KIT	
Control Module/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/Wiring Harness — Network communication (RS-485, 2 or 4 wire, 300, 1200 or 9600 baud selectable), 2 stage cool/ 2 stage heat, zone temperature monitoring, discharge temperature monitoring, dirty filter monitoring, LED's for system monitoring, 5 SPDT outputs, battery backup, Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Return Air Sensor provides input to module to determine heating or cooling operation and number of stages required, Discharge Air Sensor monitors leaving air temperature during unit operation	16K27
Sensor — Room temperature	78H42
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	30K48
CPC 810-3060 KIT	
Control Module/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/Wiring Harness — Network communications (RS-485, shielded pair twisted wire), 8 analog/digital inputs, 8 form-C relay outputs, 2 analog outputs, 24 VAC, output connections (2 stage heat/2 stage cool, 2 auxiliary outputs (user defined), economizer, fan), input connections (space temperature, discharge and return air temperature, 2 compressor monitoring, 2 aux. inputs (user defined), local override (1 to 240 minutes), Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Return Air Sensor provides input to module to determine heating or cooling operation and number of stages required, Discharge Air Sensor monitors leaving air temperature during unit operation	48K88
Sensor — Room temperature	48J43
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	30K48

[1] Field installs in return air duct. Two dampers furnished per order no.

OPTIONAL DDC TEMPERATURE CONTROL SYSTEMS (FACTORY OR FIELD INSTALLED)

System and Component Description	Field Installed Catalog No.
CSI MR88R KIT	
Control Module/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/Wiring Harness — Small point count controller, supports free-form modular DDC programming, intelligent I/STAT for independent local analog or digital control, local override and setpoint adjustment, 4 local or global points, integral start/stop schedule, standalone operation, universal inputs (thermistor, voltage, current, contact), 8 relay or low voltage triac outputs, analog outputs, 7 signal inputs plus power, ISTAT port, MR LAN port (RS-485, shielded pair twisted wire), self test diagnostics with LED readout, input point parameters (normal and narrow range, indoor and outdoor temperature range, individual calibration)	**28K58**
Sensor — Room temperature sensor with microprocessor data communications and power, alphanumeric LCD display for modes selected, mode selection push buttons for (Function, Call, Service, Change and Select), password protection for Service mode, up to 4 global point assignment with red LED's to indicate (Set Temp., Fan Speed, Room and Outside)	**I/STAT (Field Furnished)**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
HONEYWELL EXCEL 10 KIT	
Control Module (W7750A)/Blower Proving Switch/Return Air Sensor/Wiring Harness — Standalone control (staged or modulating) of all heating, cooling, mixed air, system fan and economizer functions, up to four stages of heating/cooling combinations, for single zone applications, 6 relay outputs, 2 digital inputs, 1 resistive analog input, network communications, LonMark compliant, configuration options include: supply fan type of air handler, occupancy sensor, window sensor, wall module option, dirty filter monitor, indoor air quality override and smoke control. modes of operation include: occupied, standby, unoccupied, bypass occupied, override modes, start-up and wait, cooling, heating, emergency heat, off mode, disabled mode, smoke emergency, freeze protect, manual position, fan only and disabled. Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Return Air Sensor provides input to module to determine heating or cooling operation and number of stages required.	**20L39**
Sensor — Room temperature, with setpoint knob	**19L21**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
HONEYWELL W7620 KIT	
Control Module/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/Wiring Harness — Local and remote monitoring and alarming (smoke alarms, dirty filter, freezestat, heating and cooling failures, run time accumulation for overrides, zone high/low temperature alarms, fan failure alarm, space humidity), heating and cooling control, economizer control, up to 4 stages with minimum on/off times, auxiliary heat for heat pump control, intelligent recovery, humidity and indoor air quality control, four relay outputs, network communications (RS-485, shielded pair twisted wire), space temperature inputs, room or return air temperature control, precise proportional plus integral (P+I) control, control loops provide accurate unit control without temperature droop, Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Return Air Sensor provides input to module to determine heating or cooling operation and number of stages required, Discharge Air Sensor monitors leaving air temperature during unit operation	**28K59**
Sensor — Room temperature, platinum RTD (Resistive Temperature Device)	**T7660 (Field Furnished)**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
JOHNSON FACILITATOR FA-UNT KIT	
Control Module/Blower Proving Switch/Wiring Harness —Standalone control of all heating, cooling and economizer functions, various operation modes (including: occupied, unoccupied, warm-up, standby), network communications, 6 analog inputs, 4 binary inputs, momentary override, zone lighting control, advanced unit diagnostics, indoor air quality control, outdoor air temperature and humidity monitoring, alarm monitoring of: sensors, airflow, economizer, dirty filter, heating /cooling operation, cooling limit, Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Control module for use in single zone applications.	**86K65**
Sensor — Room temperature, phone jack style wiring, quick-mount design, latching door mechanism, setpoint adjustment (warmer/cooler), optional override button, nickel sensors, options for choosing setpoint, indication, mounting and wiring type, plug for handheld commissioning tool (**60K36**).	**60K12**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
JOHNSON METASYS UNT KIT	
Control Module/Blower Proving Switch/Wiring Harness —Standalone control of all heating, cooling and economizer functions, various operation modes (including: occupied, unoccupied, warm-up, standby), network communications, 6 analog inputs, 4 binary inputs, momentary override, zone lighting control, advanced unit diagnostics, indoor air quality control, outdoor air temperature and humidity monitoring, alarm monitoring of: sensors, airflow, economizer, dirty filter, heating /cooling operation, cooling limit, Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Control module may be used in multi-zone applications (i.e. L-Zone).	**34K84**
Commissioning Tool — Hand-held interface tool, monitor and adjust 36 analog and binary points, password protected, carrying case.	**60K37**
Sensor — Room temperature, phone jack style wiring, quick-mount design, latching door mechanism, setpoint adjustment (warmer/cooler), optional override button, nickel sensors, options for choosing setpoint, indication, mounting and wiring type, plug for handheld commissioning tool (**60K36**).	**60K12**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
NOVAR ETM-2050 KIT	
Electronic Thermostat Module (ETM)/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/ Wiring Harness — Module monitors unit operation from different sensors installed in unit, has outputs for 2 stage heat/2 stage cool, automatic or continuous blower operation, economizer damper operation and night setback, features: day/occupied mode with low enthalpy (outdoor air damper open), high enthalpy (outdoor air damper closed) or night/unoccupied mode (outdoor air damper closed), network communication (RS-485, shielded pair twisted wire), local override (1 to 255 minutes), watchdog function, fail-safe operation, ETM allows units to be "daisy chained" together (up to 31 units) to be operated from one central location with an "executive" type control processor (onsite or offsite), built-in time delays, built-in unit operating defaults, diagnostic LED's indicate various operating functions, surge suppression protects ETM against lightning or voltage spikes, Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Return Air Sensor provides input to ETM module to determine heating or cooling operation and number of stages required, Discharge Air Sensor monitors leaving air temperature during unit operation	**48K87**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
Room Temperature Sensor — Provides input to ETM module to determine heating or cooling operation and number of stages required (ordered separately)	**97H53**
Night Setback Override Switch — Allows momentary override of night setback during unoccupied mode	Field Furnished

OPTIONAL DDC TEMPERATURE CONTROL SYSTEMS (FACTORY OR FIELD INSTALLED)

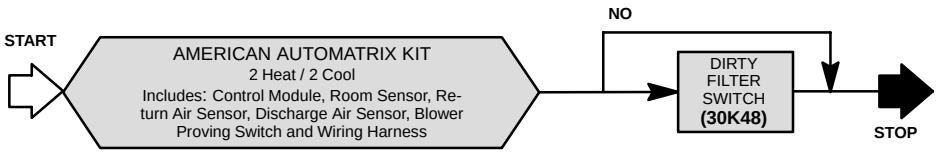
System and Component Description	Field Installed Catalog No.
NOVAR ETM-2051 KIT	
Electronic Thermostat Module (ETM)/Blower Proving Switch/Return Air Sensor/Discharge Air Sensor/ Wiring Harness — Module monitors unit operation from different sensors installed in unit and monitors unit diagnostic codes of the IMC. The ETM has outputs for 2 stage heat/2 stage cool, 7 relay outputs: fan Cool 1, Cool 2. Heat 1, Heat 2, Economizer, Night Mode, automatic or continuous blower operation, economizer damper operation and night setback, features: day/occupied mode with low enthalpy (outdoor air damper open), high enthalpy (outdoor air damper closed) or night/unoccupied mode (outdoor air damper closed), network communication (RS-485, shielded pair twisted wire), local override (1 to 255 minutes), watchdog function, fail-safe operation, ETM allows units to be "daisy chained" together (up to 31 units) to be operated from one central location with an "executive" type control processor (onsite or offsite), built-in time delays, built-in unit operating defaults, diagnostic LED's indicate various operating functions, surge suppression protects ETM against lightning or voltage spikes, Blower Proving Switch monitors blower operation and locks out unit in case of blower failure, Return Air Sensor provides input to ETM module to determine heating or cooling operation and number of stages required, Discharge Air Sensor monitors leaving air temperature during unit operation	**69K67**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
Room Temperature Sensor with Built-in Night Setback Override Button — Provides input to ETM module to determine heating or cooling operation and number of stages required (ordered separately). Override button allows momentary override of night setback during unoccupied mode.	**67K61**
NOVAR CUSTOM CONTROLLER KIT	
Control Module/Blower Proving Switch/Discharge Air Sensor/Room Air Sensor/Wiring Harness — User definable comfort setpoint, on/off and time of day control, cycle II ventilation control	**48K89**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS (FIELD INSTALLED)

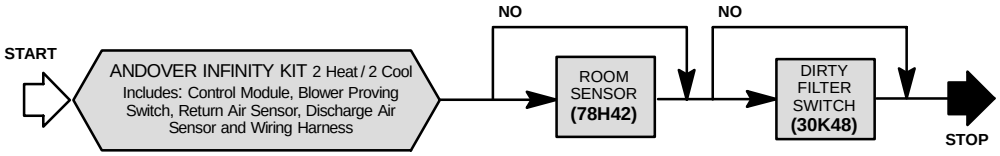
System and Component Description	Catalog No.
ELECTRO-MECHANICAL THERMOSTAT	
Thermostat — Two stage heat & two stage cool with dual temperature levers, subbase choice	**13F06**
Subbase — Manual system switch (Off-Heat-Auto-Cool), fan switch (Auto-On)	**13F17**
Subbase — Non-switching	**13F16**
Night Setback Operation — Order components below	—
Heating Thermostat — Single stage heat	**13F12**
Subbase — Non-switching	**13F16**
Time Clock — 7 day operation, indicates day and night periods, 2 hour increments, battery back-up	**See Price Book for Selection**
Time Clock — 24 hour night setback operation, 15 minute increments, battery back-up	**See Price Book for Selection**
Blower Proving Switch — Monitors blower operation, locks out unit in case of blower failure	**30K49**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
ELECTRONIC THERMOSTAT	
Electronic Thermostat — Any two stage heat/ two stage cool electronic thermostat may be used.	**See Price Book for Selection**
Time Clock — 7 day operation, indicates day and night periods, 2 hour increments, battery back-up	**See Price Book for Selection**
Time Clock — 24 hour night setback operation, 15 minute increments, battery back-up	**See Price Book for Selection**
Blower Proving Switch — Monitors blower operation, locks out unit in case of blower failure	**30K49**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**
HONEYWELL T7300 THERMOSTAT	
Thermostat — Programmable, internal or optional remote temperature sensing (sensor required), touch sensitive keyboard, automatic switching, °F or °C readout, no anticipator, droop/no droop selection, indicator LED's, hour/day programming, override capabilities, time and operational mode readout, stage status indicators, battery back-up, subbase choice	**37L54**
Subbase — Selectable staging up to three stage heat & two stage cool, manual system switch (Heat-Off-Auto-Cool), fan switch (Auto-On), indicator LED's, auxiliary relay output for economizer operation	**37L53**
Sensor — Room temperature	**58C92**
Sensor — Room temperature with 3 hour override and setpoint adjustment	**86G67**
Sensor — Return air temperature	**27C40**
Blower Proving Switch — Monitors blower operation, locks out unit in case of blower failure	**30K49**
Dirty Filter Switch — Senses static pressure increase indicating a dirty filter condition	**30K48**

DDC COMMERCIAL TEMPERATURE CONTROL SELECTION FLOWCHARTS

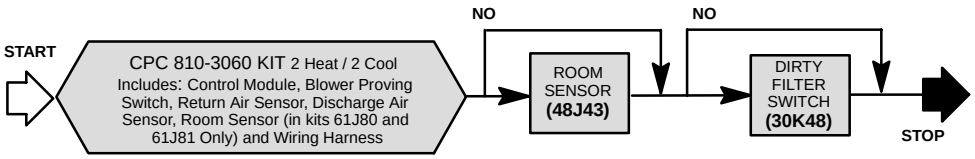
AMERICAN AUTOMATRIX



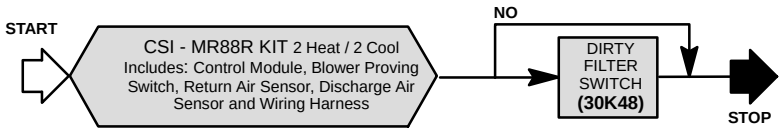
ANDOVER INFINITY



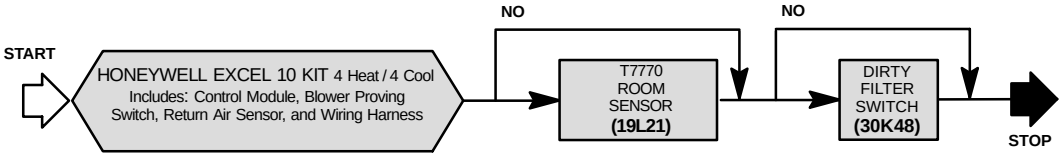
CPC 810-3060



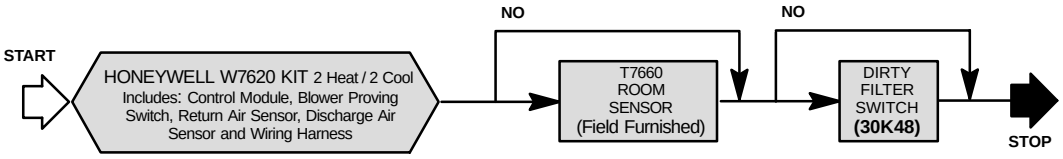
CSI - MR88R



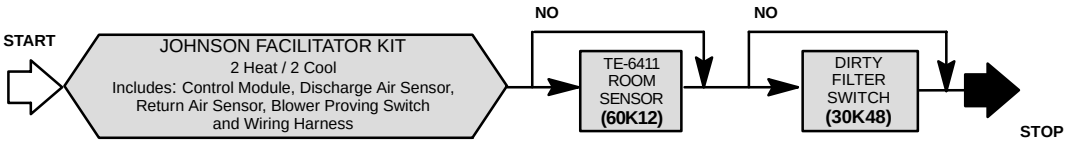
HONEYWELL EXCEL 10



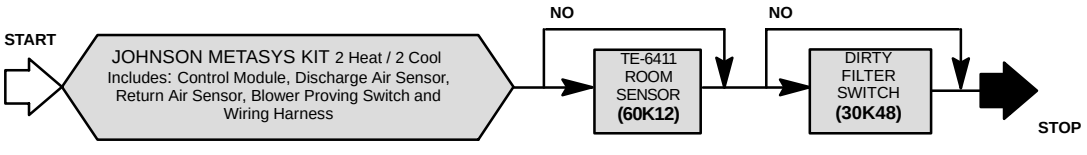
HONEYWELL W7620



JOHNSON FACILITATOR FA-UNT

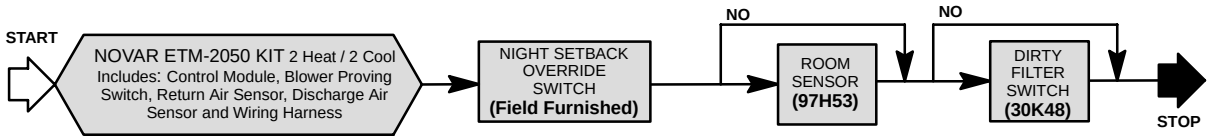


JOHNSON METASYS UNT

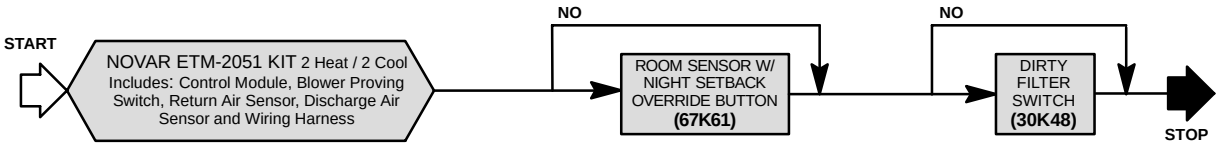


DDC COMMERCIAL TEMPERATURE CONTROL SELECTION FLOWCHARTS

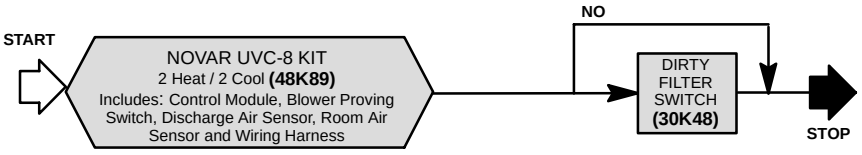
NOVAR ETM-2050



NOVAR ETM-2051

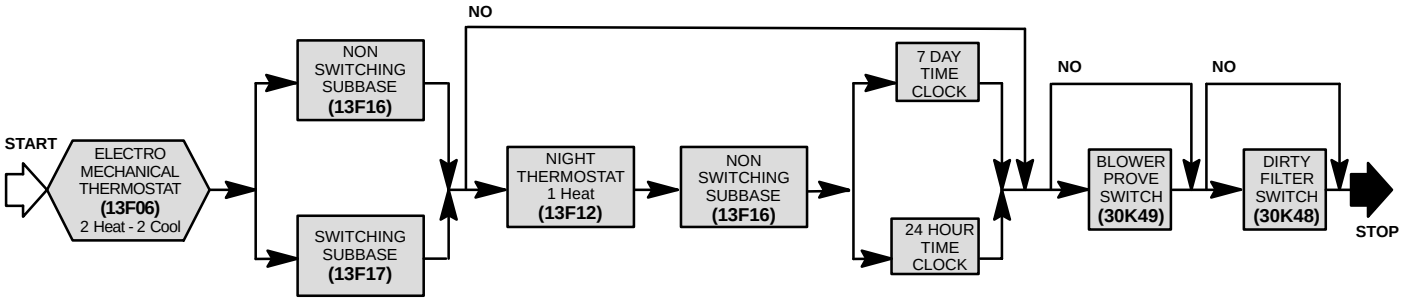


NOVAR CUSTOM CONTROLLER

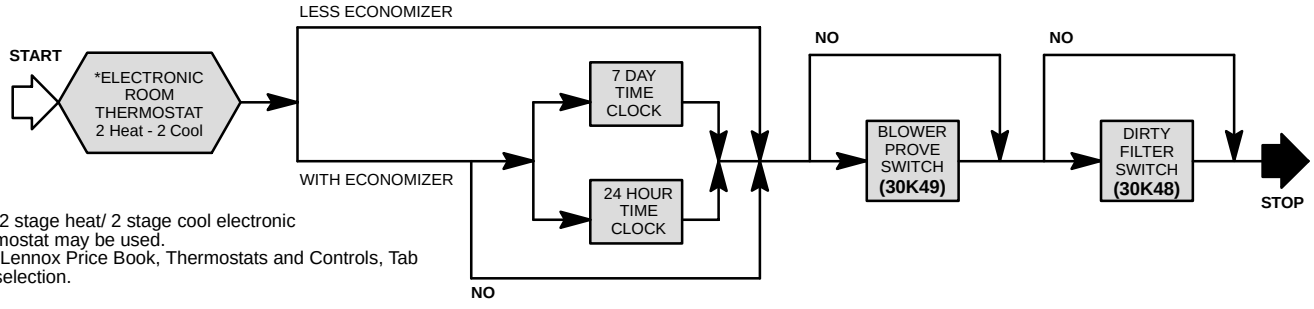


CONVENTIONAL COMMERCIAL TEMPERATURE CONTROL SELECTION FLOWCHARTS

ELECTRO-MECHANICAL THERMOSTAT

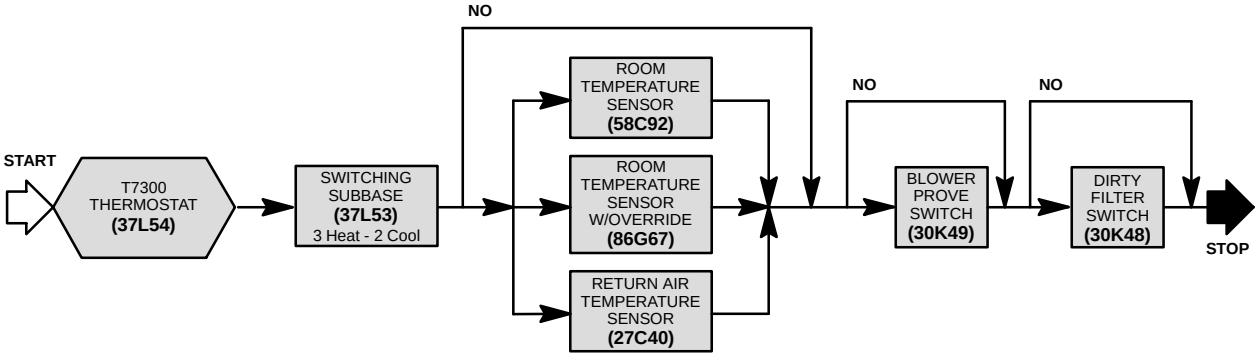


ELECTRONIC THERMOSTAT



* Any 2 stage heat/ 2 stage cool electronic thermostat may be used.
See Lennox Price Book, Thermostats and Controls, Tab for selection.

HONEYWELL T7300 THERMOSTAT



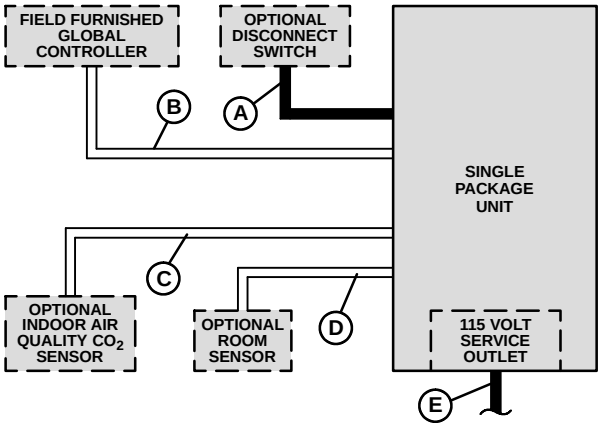
FIELD WIRING

ALL DDC CONTROL SYSTEMS

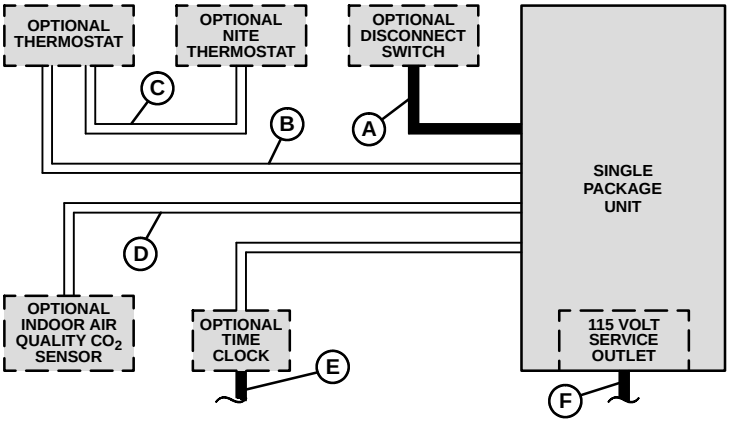
A — Two or Three wire power (See Electrical Data Table)
B — RS-485 shielded pair twisted wire
C — Four wire low voltage
D — Two wire low voltage (Andover Infinity, CPC 810-3060 and Novar ETM-2050)
Three wire low voltage (CSI MR88R)
Four wire low voltage (Johnson Metasys, Honeywell W7620)
Four wire low voltage (Novar Custom Controller) + 2 wire low voltage (Novar UVC-8 Sensor)
Seven wire low voltage (Honeywell Excel 10)
E — Two wire power (115 volt)

— Field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes.



ELECTRO-MECHANICAL, ELECTRONIC OR HONEYWELL T7300 THERMOSTAT CONTROL SYSTEM



A — Two or Three wire power (See Electrical Data Table)
B — Six wire low voltage (Electro-Mechanical)
Seven wire low voltage (Electronic)
Nine wire low voltage (Honeywell T7300)
Ten wire low voltage (Honeywell T7300 with Service LED)
C — Two wire low voltage (Electro-Mechanical Only)
D — Four wire low voltage (All Systems)
E — Two wire power
F — Two wire power (115 volt)

— Field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes.

MODEL NUMBER IDENTIFICATION

L GA 060 S 1 Y

Unit Type
L = Commercial Package Unit

Unit Type
G = Cooling w/ Gas Heat
C = Cooling Only (w/ opt. Electric Heat)
H = Heat Pump

Major Design Sequence
A = First Generation

Cooling Capacity Tons (kW)
036 = 3 (10.6)
042 = 3.5 (12.3)
048 = 4 (14.1)
060 = 5 (17.6)
072 = 6 (21.1)

Cooling Efficiency
S = Standard Efficiency
H = High Efficiency

Heat Type
NOTE — This space is intentionally left blank, it will be filled in on unit nameplate depending on type of heat ordered.

Minor Revision Number

Voltage
P = 208/230v-1 phase-60hz
Y = 208/230v-3 phase-60hz
G = 460v-3 phase-60hz
J = 575v-3 phase-60hz

SPECIFICATIONS - LCA/LGA MODELS – 3 - 4 TON

Model No.				LCA/LGA036		LCA/LGA042		LCA/LGA048	
Nominal Tonnage				3		3.5		4	
Cooling Ratings	Cooling Efficiency type			**Standard**	**High**	**Standard**	**High**	**Standard**	**High**
	Gross Cooling Capacity — Btuh (kW)			38,000 (11.1)	38,000 (11.1)	44,200 (12.9)	44,500 (13.0)	50,500 (14.8)	50,200 (14.7)
	[1]Net Cooling Capacity — Btuh (kW)			36,000 (10.6)	35,800 (10.5)	42,000 (12.3)	42,500 (12.5)	48,000 (14.1)	48,000 (14.1)
	Total Unit Power (kW)			3.9	3.4	4.6	4.0	5.0	4.6
	[1]SEER (Btuh/Watt)			10.0	12.0	10.0	12.0	10.0	12.0
	EER (Btuh/Watt)			9.2	10.5	9.1	10.6	9.6	10.4
[2]Sound Rating Number (db)				82					
Refrigerant Charge Furnished (HCFC-22)				6 lbs. 10 oz. (3.01 kg)	8 lbs. 6 oz. (3.80 kg)	6 lbs. 10 oz. (3.01 kg)	8 lbs. 13 oz. (4.00 kg)	7 lbs. 9 oz. (3.43 kg)	9 lbs. 8 oz. (4.31 kg)
LGA Models Only Two Stage Heating Capacity (Natural or LPG/Propane Gas (at Sea Level)	**Model No.**			**LGA036**		**LGA042**		**LGA048**	
	Heat Input Type			**Standard**		**Standard**	**Dual or High**	**Standard**	**Dual or High**
	Input (low) — Btuh (kW)			- - - -		- - - -	92,000 (27.0)	- - - -	92,000 (27.0)
	Output (low) — Btuh (kW)			- - - -		- - - -	72,700 (21.3)	- - - -	72,700 (21.3)
	Input (High) — Btuh (kW)			78,000 (22.9)		78,000 (22.9)	125,000 (36.6)	78,000 (22.9)	125,000 (36.6)
	Output (High) — Btuh (kW)			61,600 (18.1)		61,600 (18.1)	98,750 (29.0)	61,600 (18.1)	98,750 (29.0)
	A.G.A./C.G.A. Thermal Efficiency / AFUE			80.0% / 78.0%					
Gas Supply Connections npt — in. - Natural or LPG/Propane				1/2					
Recommended Gas Supply Pressure — in. wc. (kPa)			Natural	7 (1.7)					
			LPG/Propane	11 (2.7)					
Evaporator Blower and Drive Selection	Blower wheel nominal dia. x width - in. (mm)			11-1/2 X 9 (292 X 229)					
	Direct Drive Motor	Nominal Motor output hp (W)		.75 (560)					
		Voltage & phase		208/230v - 1ph or 3 ph or 460v, 575v-3ph					
	1.5 hp (1.1 kW) [3]Motor & Drives	Motor output hp(kW)	Nominal	1.5 (1.1)					
			Max. usable	1.72 (1.3)					
		Voltage & phase		208/230v - 1ph, 208/230v, 460v or 575v-3ph					
		(Drive kit #) RPM range		(1) 615 - 920 or (2) 800-1105					
	2 hp (1.5 kW) [3]Motor & Drives	Motor output hp (kW)	Nominal	2 (1.5)					
			Max. usable	2.3 (1.7)					
		Voltage & phase		208/230v, 460v or 575v-3ph					
		(Drive kit #) RPM range		(3) 920 - 1230					
	3 hp (2.2 kW) [3]Motor & Drives	Motor output hp (kW)	Nominal	3 (2.2)					
			Max. usable	3.45 (2.6)					
		Voltage & phase		208/230v, 460v or 575v-3ph					
		(Drive kit #) RPM range		(4) 1070 - 1325					
Evaporator Coil	Net face area — sq. ft. (m^2)			6.25 (0.58)					
	Tube diameter — in. (mm) & No. of rows			3/8 (9.5) - 2			3/8 (9.5) - 3	3/8 (9.5) - 2	3/8 (9.5) - 3
	Fins per inch (m)			15 (591)					
	Drain connection no. & size - in. (mm) fpt			(1) 3/4 (19)					
	Expansion device type			Balanced Port Thermostatic Expansion Valve, replaceable thermostatic element					
Condenser Coil	Net face area — sq. ft. (m^2)			14.6 (1.35)					
	Tube diameter — in. (mm) & No. of rows			3/8 (9.5) - 1.3	3/8 (9.5) - 2	3/8 (9.5) - 1.3	3/8 (9.5) - 2		
	Fins per inch (m)			20 (787)					
Condenser Fans	Diameter — in. (mm) & No. of blades			24 (610) - 3					
	Total Air volume — cfm (L/s)			4000 (1890)				4200 (1980)	
	Motor horsepower (W)			1/3 (224)					
	Motor rpm			1075					
	Total Motor watts			320				360	
Filters (furnished)	Type of filter			Disposable Commercial Grade Pleated					
	No. and size — in. (mm)			(2) 16 x 25 x 2 (406 x 635 x 51)					
Electrical characteristics				208/203v -— 60 hertz — 1 phase 208/230v, 460v or 575v — 60 hertz — 3 phase					

[1] Rated in accordance with ARI Standard 210/240 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.
NOTE — Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.
[2] Sound Rating Number rated in accordance with test conditions included in ARI Standard 270.
[3] 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 by Lennox 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.

SPECIFICATIONS - LCA/LGA MODELS – 5 - 6 TON

Model No.			LCA/LGA060		LCA/LGA072	
Nominal Tonnage			5		6	
Cooling Ratings	Cooling Efficiency Type		**Standard**	**High**	**Standard**	**High**
	Gross Cooling Capacity — Btuh (kW)		60,500 (17.7)	63,000 (18.5)	76,000 (22.3)	74,500 (21.8)
	[1] Net Cooling Capacity — Btuh (kW)		57,500 (16.9)	60,000 (17.6)	72,000 (21.1)	71,500 (21.0)
Cooling Ratings	Total Unit Power (kW)		6.5	5.8	7.6	6.85
	[1] SEER (Btuh/Watt)		10.0	12.0	- - - -	- - - -
	EER (Btuh/Watt)		8.8	10.3	9.0	10.5
[2] Sound Rating Number (db)			82			
Refrigerant Charge Furnished (HCFC-22)			7 lbs. 14 oz. (3.57 kg)	10 lbs. 0 oz. (4.54 kg)	9 lbs. 5 oz. (4.22 kg)	9 lbs. 13 oz. (4.45 kg)
LGA Models Only Two Stage Heating Capacity (Natural or LPG/Propane Gas (at Sea Level)	**Model No.**		**LGA060**		**LGA072**	
	Heat Input Type		**Standard**	**Dual or High**	**Standard**	**Dual or High**
	Input (low) — Btuh (kW)		- - - -	92,000 (27.0)	- - - -	92,000 (27.0)
	Output (low) — Btuh (kW)		- - - -	72,700 (21.3)	- - - -	72,700 (21.3)
	Input (High) — Btuh (kW)		78,000 (22.9)	125,000 (36.6)	78,000 (22.9)	125,000 (36.6)
	Output (High) — Btuh (kW)		61,600 (18.1)	98,750 (28.9)	61,600 (18.1)	98,750 (28.9)
	A.G.A./C.G.A. Thermal Efficiency / AFUE		80.0% / 78.0%			
Gas Supply Connections npt — in. - Natural or LPG/Propane			1/2			
Recommended Gas Supply Pressure — in. wc. (kPa)		Natural	7			
		LPG/Propane	11			
Evaporator Blower and Drive Selection	Blower wheel nominal dia. x width — in. (mm)		11-1/2 x 9 (292 x 229)			
	Direct Drive Motor	Nominal motor output — hp (kW)	.75 (.56)		- - - -	
		Voltage & phase	208/230v -1 or 3ph or 460, 575v-3ph		- - - -	
	1.5 hp (1.1 kW) [3] Motor & Drives	Nominal motor horsepower (kW)	1.5 (1.1)			
		Max. usable motor output - hp (kW)	1.72 (1.3)			
		Voltage & phase	208/230v - 1ph, 208/230v, 460v or 575v-3ph			
		(Drive kit #) RPM range	(1) 615 - 920 or (2) 800 - 1105			
	2 hp (1.5 kW) [3] Motor & Drives	Nominal motor output — hp (kW)	2 (1.5)			
		Max. usable motor output - hp (kW)	2.3 (1.7)			
		Voltage & phase	208/230v, 460v or 575v-3ph			
		(Drive kit #) RPM range	(3) 920 - 1230			
	3 hp (2.2 kW) [3] Motor & Drives	Nominal motor horsepower (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	(4) 1070 -1325			
Evaporator Coil	Net face area — sq. ft. (m^2)		6.25 (0.58)			
	Tube diameter — in. (mm) & No. of rows		3/8 (9.5) — 2	3/8 (9.5) — 3	3/8 (9.5) — 3	3/8 (9.5) — 4
	Fins per inch (m)		15 (591)			
	Drain connection no. & size — in. (mm) fpt		(1) 3/4 (19)			
	Expansion device type		Balanced Port Thermostatic Expansion Valve, replaceable thermostatic element			
Condenser Coil	Net face area — sq. ft. (m^2)		14.6 (1.35)			
	Tube diameter — in. (mm) & No. of rows		3/8 (9.5) — 2			
	Fins per inch (m)		20 (788)			
Condenser Fans	Diameter — in. (mm) & No. of blades		24 — 3			
	Total Air volume — cfm (L/s)		4200			
	Motor horsepower (W)		1/3 (248)			
	Motor rpm		1075			
	Total Motor watts		360			
Filters (furnished)	Type of filter		Disposable Commercial Grade Pleated			
	No. and size — in. (mm)		(2) 16 x 25 x 2 (406 x 635 x 51)			
Electrical characteristics			208/203v -— 60 hertz — 1 phase 208/230v, 460v or 575v 60 hertz — 3 phase		208/230v, 460v or 575v 60 hertz — 3 phase	

[1] Rated in accordance with ARI Standard 210/240 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.

NOTE — Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

[2] Sound Rating Number rated in accordance with test conditions included in ARI Standard 270.

[3] 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 by Lennox 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 – ALL MODELS

Model No.	Description	Weight	
		lbs.	kg
Net Weights			
LCA036S/H	Net weight (Base unit)	645	292
LCA042S/H	Net weight (Base unit)	645	292
LCA048S/H	Net weight (Base unit)	675	306
LCA060S/H	Net weight (Base unit)	685	6310
LCA060H	Net weight (Base unit)	685	310
LCA072S	Net weight (Base unit)	676	307
LCA072H	Net weight (Base unit)	686	311
LGA036S/H	Net weight (Base unit with low fire heat exchanger)	656	298
LGA042S/H	Net weight (Base unit with low fire heat exchanger)	656	298
LGA048S/H	Net weight (Base unit with low fire heat exchanger)	720	327
LGA060S/H	Net weight (Base unit with low fire heat exchanger)	730	331
LGA072S	Net weight (Base unit with low fire heat exchanger)	745	338
LGA072H	Net weight (Base unit with low fire heat exchanger)	755	342
Shipping Weights (Add Factory Installed Options Weights To Base Unit Weights For Total Shipping Weight)			
LCA036S/H	Base unit	775	351
LCA042S/H	Base unit	775	351
LCA048S/H	Base unit	805	365
LCA060S/H	Base unit	815	370
LCA072S	Base unit	806	366
LCA072H	Base unit	816	370
LCA Models Only	Electric Heat (add to Base unit)	See Electric Heat Rating Tables	
LGA036S/H	Base unit with low fire heat exchanger	786	357
LGA042S/H	Base unit with low fire heat exchanger	786	357
LGA048S/H	Base unit with low fire heat exchanger	850	386
LGA060S/H	Base unit with low fire heat exchanger	860	390
LGA072S	Base unit with low fire heat exchanger	875	397
LGA072H	Base unit with low fire heat exchanger	885	401
LGA042, 048, 060 and 072 Models Only	Dual/High Fire Heat Exchanger (add to Base unit)	18	8
All Models	Economizer (add to Base unit)	56	25
	Outdoor Air Damper (add to Base unit)	46	21
	LTL Packaging (less than truck load) (add to Base unit)	13	6
	Gravity Exhaust Dampers	8	4
	Hood for Gravity Exhaust Dampers	15	7

HIGH ALTITUDE DERATE (LGA MODELS)

A.G.A. certified units must be derated when installed at an elevation of more than 2000 feet (610 m) above sea level. If unit is installed at an altitude higher than 2000 feet (610 m), the unit must be derated 4% for every 1000 feet (305 m) above sea level. Thus, at an altitude of 4000 feet (1210 m), the unit would require a derate of 16%.

C.G.A. certified units must be derated when installed at an elevation of more than 2000 feet (610 m) above sea level. If unit is installed at an altitude higher than 2000 feet (610 m), the unit must be derated 10% for elevations between 2000 feet and 4500 feet (610 m and 1370 m) above sea level.

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

ELECTRICAL DATA – LCA/LGA036S

Model No.			LCA/LGA036S													
Line voltage data — 60 Hz			208/230v - 1 phase		208/230v- 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps		14.8		10.6				4.8				4.2			
	Locked rotor amps		78.8		65.1				32.8				26.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		45	50	35	35	35	40	15	15	15	15	15	15	15	15
	Less Exhaust Fan		40	45	30	30	30	35	15	15	15	15	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		30	37	25	26	28	31	12	12	13	14	11	11	11	12
	Less Exhaust Fan		26	33	21	22	24	27	10	11	11	13	9	9	9	11
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
Service Outlet (2) 115 volt GFCI (amp rating)			15													

ELECTRICAL DATA – LCA/LGA036H

Model No.			LCA/LGA036H													
Line voltage data — 60 Hz			208/230v - 1 phase		208/230v- 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps		16.0		10.3				5.8				4.2			
	Locked rotor amps		88.0		77.0				39.0				30.6			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		45	50	30	35	35	40	15	15	20	20	15	15	15	15
	Less Exhaust Fan		40	50	30	30	30	35	15	15	15	20	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		32	39	25	26	28	31	13	14	14	16	11	11	11	12
	Less Exhaust Fan		28	34	20	21	23	26	11	12	12	14	9	9	9	11
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
Service Outlet (2) 115 volt GFCI (amp rating)			15													

ELECTRICAL DATA – LCA/LGA042S

Model No.			LCA/LGA042S													
Line voltage data — 60 Hz			208/230v 1 phase		208/230v 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps		18.0		11.4				5.8				5.0			
	Locked rotor amps		92.0		84.0				42.0				35.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10.1	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		50	50	35	35	40	40	15	15	15	20	15	15	15	15
	Less Exhaust Fan		45	50	30	30	35	35	15	15	15	15	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		34	41	26	27	29	32	13	14	14	16	12	12	12	13
	Less Exhaust Fan		30	37	22	23	25	28	11	12	12	14	10	10	10	12
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
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 – LCA/LGA042H

Model No.			LCA/LGA042H													
Line voltage data — 60 Hz			208/230v 1 phase		208/230v 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps		17.9		12.4				5.8				4.8			
	Locked rotor amps		104.0		88.0				44.0				34.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10.1	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		50	50	35	40	40	45	15	15	20	20	15	15	15	15
	Less Exhaust Fan		45	50	35	35	35	40	15	15	15	15	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		34	41	27	29	30	33	13	14	14	16	12	12	12	13
	Less Exhaust Fan		30	37	23	24	26	29	11	12	12	14	10	10	10	11
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
Service Outlet (2) 115 volt GFCI (amp rating)			15													

ELECTRICAL DATA – LCA/LGA048S

Model No.			LCA/LGA048S													
Line voltage data — 60 Hz			208/230v 1 phase		208/230v 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps each		23.4		12.2				7.1				5.8			
	Locked rotor amps each		110.0		90.0				46.0				37.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		60	70	35	35	40	40	20	20	20	20	15	15	15	15
	Less Exhaust Fan		60	60	30	35	35	40	20	20	20	20	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		41	48	27	28	30	33	15	15	16	17	13	13	13	14
	Less Exhaust Fan		37	44	23	24	26	29	13	13	14	15	11	11	11	13
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
Service Outlet (2) 115 volt GFCI (amp rating)			15													

ELECTRICAL DATA – LCA/LGA048H

Model No.			LCA/LGA048H													
Line voltage data — 60 Hz			208/230v 1 phase		208/230v 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps each		23.7		13.5				7.4				5.8			
	Locked rotor amps each		129.0		99.0				49.5				40.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		60	70	40	40	40	45	20	20	20	20	15	15	15	15
	Less Exhaust Fan		60	60	35	35	40	40	20	20	20	20	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		42	48	29	30	32	35	15	16	16	18	13	13	13	14
	Less Exhaust Fan		37	44	24	25	27	30	13	14	14	16	11	11	11	13
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
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 – LCA/LGA060S

Model No.			LCA/LGA060S													
Line voltage data — 60 Hz			208/230v - 1 phase		208/230v 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps each		26.9		16.7				8.6				6.0			
	Locked rotor amps each		141.0		110.0				55.0				44.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		70	70	45	50	50	50	20	25	25	25	15	15	15	20
	Less Exhaust Fan		60	70	40	45	45	50	20	20	20	25	15	15	15	15
*Minimum Circuit Ampacity	With Exhaust Fan		46	52	33	34	36	39	17	17	18	19	13	13	13	15
	Less Exhaust Fan		41	48	28	29	31	34	15	15	16	17	11	11	12	13
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
Service Outlet (2) 115 volt GFCI (amp rating)			15													

ELECTRICAL DATA – LCA/LGA060H

Model No.			LCA/LGA060H													
Line voltage data — 60 Hz			208/230v - 1 phase		208/230v 3 phase				460v 3 phase				575v 3 phase			
Compressor	Rated load amps each		28.8		17.3				9.0				7.1			
	Locked rotor amps each		169.0		123.0				62.0				50.0			
Outdoor Fan Motor	Full load amps		2.4						1.3				1.0			
	Locked rotor amps		4.7						2.4				1.9			
Indoor Blower Motor	Motor Output	hp	0.75	1.5	0.75	1.5	2	3	0.75	1.5	2	3	0.75	1.5	2	3
		kW	0.56	1.1	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2	0.56	1.1	1.5	2.2
	Full load amps		4.6	11.5	4.6	5.7	7.5	10.6	2.3	2.8	3.4	4.8	2.3	2.4	2.7	3.9
	Locked rotor amps		10	55	10	40	46.9	66	5.4	20	20.4	26.8	5.4	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		70	70	50	50	50	50	25	25	25	25	20	20	20	20
	Less Exhaust Fan		70	70	45	45	45	50	20	20	20	25	15	15	15	20
*Minimum Circuit Ampacity	With Exhaust Fan		48	55	34	35	36	40	17	18	18	20	14	14	15	16
	Less Exhaust Fan		44	50	29	30	32	35	15	16	16	18	13	13	13	14
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)													
	Full load amps		4.4						1.7							
	Locked rotor amps		4.7						4.1							
Service Outlet (2) 115 volt GFCI (amp rating)			15													

ELECTRICAL DATA – LCA/LGA072S

Model No.			LCA/LGA072S								
Line voltage data — 60 Hz			208/230v - 3 phase			460v - 3 phase			575v - 3 phase		
Compressor	Rated load amps each		20.7			9.0			7.4		
	Locked rotor amps each		156.0			70.0			54.0		
Outdoor Fan Motor	Full load amps		2.4			1.3			1.0		
	Locked rotor amps		4.7			2.4			1.9		
Indoor Blower Motor	Motor Output	hp	1.5	2	3	1.5	2	3	1.5	2	3
		kW	1.1	1.5	2.2	1.1	1.5	2.2	1.1	1.5	2.2
	Full load amps		5.7	7.5	10.6	2.8	3.4	4.8	2.4	2.7	3.9
	Locked rotor amps		40	46.9	66	20	20.4	26.8	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		50	60	60	25	25	25	20	20	20
	Less Exhaust Fan		50	50	50	20	20	25	20	20	20
*Minimum Circuit Ampacity	With Exhaust Fan		39	41	44	18	18	20	15	15	16
	Less Exhaust Fan		34	36	39	16	16	18	13	13	15
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)								
	Full load amps		4.4			1.7					
	Locked rotor amps		4.7			4.1					
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 – LCA/LGA072H

Model No.			LCA/LGA072H								
Line voltage data — 60 Hz			208/230v - 3 phase			460v - 3 phase			575v - 3 phase		
Compressor	Rated load amps each		19.9			9.0			7.4		
	Locked rotor amps each		156.00			70.0			54.0		
Outdoor Fan Motor	Full load amps		2.4			1.3			1.0		
	Locked rotor amps		4.7			2.4			1.9		
Indoor Blower Motor	Motor Output	hp	1.5	2	3	1.5	2	3	1.5	2	3
		kW	1.1	1.5	2.2	1.1	1.5	2.2	1.1	1.5	2.2
	Full load amps		5.7	7.5	10.6	2.8	3.4	4.8	2.4	2.7	3.9
	Locked rotor amps		40	46.9	66	20	20.4	26.8	15	16.2	23.4
Rec. max. fuse size (amps)	With Exhaust Fan		50	50	60	25	25	25	20	20	20
	Less Exhaust Fan		50	50	50	20	20	25	20	20	20
*Minimum Circuit Ampacity	With Exhaust Fan		38	40	43	18	18	20	15	15	16
	Less Exhaust Fan		33	35	38	16	16	18	13	13	15
Optional Power Exhaust Fan	Horsepower (W)		1/2 (363)								
	Full load amps		4.4			1.7					
	Locked rotor amps		4.7			4.1					
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).

OPTIONAL ELECTRIC HEAT ACCESSORIES – LCA MODELS

UNIT FUSE BLOCKS WITH ELECTRIC HEAT

Unit Model No.				LCA036S	LCA036H	LCA042S	LCA042H	LCA048S	LCA048H	LCA060S	LCA060H	LCA072S	LCA072H
Electric Heat		Model No.		EHA (see Electric Heat Data tables for additional information)									
		kW Input Range		7, 10 15 & 20						7, 10, 15, 20 & 25		10, 15, 20, 25, & 30	
Unit Fuse Block	**With** Power Exhaust Fans	.75 hp (.56 kW)	208/230v - 1ph	**26L29**	**26L30**	**26L31**		**26L32**		**26L34**		- - - -	
			208/230v - 3ph	**26L36**	**26L35**	**26L36**			**26L37**	**26L40**	**26L41**		
			460v - 3ph	**26L43**				**26L44**			**26L45**		
			575v - 3ph	**26L43**							**26L44**		
		1.5 hp (1.1 kW)	208/230v - 1ph	**26L31**				**26L34**					
			208/230v - 3ph	**26L36**			**26L37**	**26L36**	**26L37**	**26L41**			
			460v - 3ph	**26L43**				**26L44**		**26L45**			
			575v - 3ph	**26L43**							**26L44**		
		2 hp (1.5 kW)	208/230v - 3ph	**26L36**		**26L37**			**26L38**	**26L41**		**26L42**	**26L41**
			460v - 3ph	**26L43**	**26L44**	**26L43**	**26L44**			**26L45**			
			575v - 3ph	**26L43**							**26L44**		
		3 hp (2.2 kW)	208/230v - 3ph	**26L38**		**26L40**		**26L38**	**26L40**	**26L41**		**26L42**	
			460v - 3ph	**26L43**	**26L44**					**26L45**			
			575v - 3ph	**26L43**						**26L44**			
Unit Fuse Block	**Without** Power Exhaust Fans	.75 hp (.56 kW)	208/230v - 1ph	**26L28**		**26L30**		**26L32**			**26L34**	- - - -	
			208/230v - 3ph	**26L35**			**26L36**	**26L35**	**26L36**	**26L38**	**26L40**		
			460v - 3ph	**26L43**				**26L44**					
			575v - 3ph	**26L43**									
		1.5 hp (1.1 kW)	208/230v - 1ph	**26L30**	**26L31**			**26L32**		**26L34**			
			208/230v - 3ph	**26L35**			**26L36**			**26L40**		**26L41**	
			460v - 3ph	**26L43**				**26L44**					
			575v - 3ph	**26L43**								**26L44**	
		2 hp (1.5 kW)	208/230v - 3ph	**26L35**		**26L36**			**26L38**	**26L40**		**26L41**	
			460v - 3ph	**26L43**				**26L44**					
			575v - 3ph	**26L43**								**26L44**	
		3 hp (2.2 kW)	208/230v - 3ph	**26L36**			**26L38**			**26L41**			
			460v - 3ph	**26L43**	**26L44**	**26L43**		**26L44**		**26L45**			
			575v - 3ph	**26L43**							**26L44**		

LTB2 ELECTRIC HEAT TERMINAL BLOCK — LTB2-175 (1 ph) (32L76) 175 amps, **LTB2-175-(3 ph) (32L77)** 175 amps
(Required For Units <u>Without</u> Disconnect/Circuit Breaker But <u>With</u> Single Point Power Source)

LTB2 Terminal Block	7, 10, 15, 20 and 25 kW 1ph	.75 hp (.56 kW)	**32L76**
		1.5 hp (1.1 kW)	
	7, 10, 15, 20, 25 and 30 kW 3ph	1.5 hp (1.1 kW)	**32L77**
		2 hp (1.5 kW)	
		3 hp (2.2 kW)	

NOTE — Terminal Block is factory installed in units with factory installed electric heat <u>without</u> disconnect/circuit breaker but <u>with</u> single point power source.

OPTIONAL ELECTRIC HEAT DATA (REQUIRES UNIT FUSE BLOCK, TERMINAL BLOCK AND SUB-FUSE BOX)

LCA036(S)(H), LCA042(S)(H), LCA048(S)(H)

kW Size Required	Electric Heat Model No., Voltage & Net Weight	*Heater Only Sub-Fuse Box (Required) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	†Total Unit (with Power Exhaust Fan) & Electric Heat Minimum Circuit Ampacity			
							.75 hp (.56 kW)	1.5 hp (1.1 kW)	2 hp (1.5 kW)	3 hp (2.2 kW)
1 PHASE										
7 kW	EHA060-7 208/230v - 1 ph (**23L62**) 9 lbs. (4 kg)	EHAFB-7 208/230v - 1 ph **(27L01)** 10 lbs. (5 kg)	1	208	5.3	18,100	42	51	----	----
			1	220	5.9	20,100	47	56		
			1	230	6.4	21,900				
			1	240	7.0	23,900				
10 kW	EHA060-10 208/230v - 1 ph (**23L63**) 9 lbs. (4 kg)	EHAFB-10 208/230v - 1 ph **(27L02)** 10 lbs. (5 kg)	‡2	208	7.5	25,600	56	64	----	----
			‡2	220	8.4	28,700	63	72		
			‡2	230	9.2	31,400				
			‡2	240	10.0	34,200				
15 kW	EHA060-15 208/230v - 1 ph (**23L64**) 9 lbs. (4 kg)	EHAFB-15 208/230v - 1 ph **(27L03)** 10 lbs. (5 kg)	‡2	208	11.3	38,600	78	87	----	----
			‡2	220	12.6	43,000	89	97		
			‡2	230	13.8	47,100				
			‡2	240	15.0	51,200				
20 kW	EHA060-20 208/230v - 1 ph (**23L65**) 12 lbs. (6 kg)	EHAFB-20 208/230v - 1 ph **(27L04)** 10 lbs. (5 kg)	‡2	208	15.0	51,200	101	110	----	----
			‡2	220	16.8	57,400	115	123		
			‡2	230	18.4	62,800				
			‡2	240	20.0	68,300				
3 PHASE										
7 kW	EHA060-7 208/230v - 3 ph (**23L67**) 460v - 3 ph (**23L73**) **575v - 3 ph (23L79)** 9 lbs. (4 kg)	EHAFB-7 208/230v - 3 ph **(27L06)** 460/575v - 3 ph **(27L12)** 10 lbs. (5 kg)	1	208	5.3	18,100	29	30	33	36
			1	220	5.9	20,100	32	33	35	39
			1	230	6.4	21,900				
			1	240	7.0	23,900				
			1	440	5.9	20,100	16	16	17	19
			1	460	6.4	21,900				
			1	480	7.0	23,900				
			1	550	5.9	20,100	13	14	14	15
			1	575	6.4	21,900				
			1	600	7.0	23,900				
10 kW	EHA072-10 208/230v - 3 ph (**23L68**) 460v - 3 ph (**23L74**) 575v - 3 ph (**23L80**) 9 lbs. (4 kg)	EHAFB-10 208/230v - 3 ph **(27L07)** 460v - 3 ph **(27L13)** 575v - 3 ph **(27L18)** 10 lbs. (5 kg)	1	208	7.5	25,600	37	38	40	44
			1	220	8.4	28,700	41	42	44	48
			1	230	9.2	31,400				
			1	240	10.0	34,200				
			1	440	8.4	28,700	20	21	21	23
			1	460	9.2	31,400				
			1	480	10.0	34,200				
			1	550	8.4	28,700	17	17	18	19
			1	575	9.2	31,400				
			1	600	10.0	34,200				
15 kW	EHA072-15 208/230v - 3 ph (**23L69**) 460v - 3 ph (**23L75**) 575v - 3 ph (**23L81**) 9 lbs. (4 kg)	EHAFB-15 208/230v - 3 ph **(27L08)** EHAFB-15/20 460v - 3 ph **(27L14)** EHAFB-15 575v - 3 ph **(27L19)** 10 lbs. (5 kg)	1	208	11.3	38,600	50	51	53	57
			1	220	12.6	43,000	56	57	59	63
			1	230	13.8	41,700				
			1	240	15.0	51,200				
			1	440	12.6	43,000	28	28	29	31
			1	460	13.8	47,100				
			1	480	15.0	51,200				
			1	550	12.6	43,000	23	23	24	25
			1	575	13.8	47,100				
			1	600	15.0	51,200				
20 kW	EHA072-20 208/230v - 3 ph (**23L70**) 460v - 3 ph (**23L76**) 575v - 3 ph (**23L82**) 12 lbs. (6 kg)	EHAFB-20 208/230v - 3 ph **(27L09)** EHAFB-20/25 460v - 3 ph **(27L15)** EHAFB-15/20 575v - 3 ph **(27L14)** 10 lbs. (5 kg)	‡2	208	15.0	51,200	63	64	66	70
			‡2	220	16.8	57,400	71	72	74	78
			‡2	230	18.4	62,800				
			‡2	240	20.0	68,300				
			1	440	16.8	57,400	35	36	37	38
			1	460	18.4	62,800				
			1	480	20.0	68,300				
			1	550	16.8	57,400	29	29	30	31
			1	575	18.4	62,800				
			1	600	20.0	68,300				

†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).
‡May be used with two stage control.
*NOTE — Heater Sub-Fuse Box is required for fusing electric heat and must be ordered extra. Factory installed heaters will have fuse box installed. Also requires LTB2 Terminal Block.

OPTIONAL ELECTRIC HEAT DATA (REQUIRES UNIT FUSE BLOCK, TERMINAL BLOCK AND SUB-FUSE BOX)

LCA060(S)(H)

kW Size Required	Electric Heat Model No., Voltage & Net Weight	*Heater Only Sub-Fuse Box (Required) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Out-put	†Total Unit (with Power Exhaust Fan) & Electric Heat Minimum Circuit Ampacity			
							.75 hp (.56 kW)	1.5 hp (1.1 kW)	2 hp (1.5 kW)	3 hp (2.2 kW)
1 PHASE										
7 kW	EHA060-7 208/230v - 1 ph (**23L62**) 9 lbs. (4 kg)	EHAFB-7 208/230v - 1 ph **(27L01)** 10 lbs. (5 kg)	1	208	5.3	18,100	48	56	- - - -	- - - -
			1	220	5.9	20,100				
			1	230	6.4	21,900				
			1	240	7.0	23,900				
10 kW	EHA060-10 208/230v - 1 ph (**23L63**) 9 lbs. (4 kg)	EHAFB-10 208/230v - 1 ph **(27L02)** 10 lbs. (5 kg)	‡2	208	7.5	25,600	56	64	- - - -	- - - -
			‡2	220	8.4	28,700	63	72		
			‡2	230	9.2	31,400				
			‡2	240	10.0	34,200				
15 kW	EHA060-15 208/230v - 1 ph (**23L64**) 9 lbs. (4 kg)	EHAFB-15 208/230v - 1 ph **(27L03)** 10 lbs. (5 kg)	‡2	208	11.3	38,600	78	87	- - - -	- - - -
			‡2	220	12.6	43,000	89	97		
			‡2	230	13.8	47,100				
			‡2	240	15.0	51,200				
20 kW	EHA060-20 208/230v - 1 ph (**23L65**) 12 lbs. (6 kg)	EHAFB-20 208/230v - 1 ph **(27L04)** 10 lbs. (5 kg)	‡2	208	15.0	51,200	101	110	- - - -	- - - -
			‡2	220	16.8	57,400	115	123		
			‡2	230	18.4	62,800				
			‡2	240	20.0	68,300				
25 kW	EHA060-25 208/230v - 1 ph (**23L66**) 12 lbs. (6 kg)	EHAFB-25 208/230v - 1 ph **(27L05)** 10 lbs. (5 kg)	‡2	208	18.8	64,200	123	132	- - - -	- - - -
			‡2	220	21.0	71,700	141	149		
			‡2	230	23.0	78,500				
			‡2	240	25.0	85,400				
3 PHASE										
7 kW	EHA060-7 208/230v - 3 ph (**23L67**) 460v - 3 ph (**23L73**) 575v - 3 ph (**23L79**) 9 lbs. (4 kg)	EHAFB-7 208/230v - 3 ph **(27L06)** 460/575v - 3 ph **(27L12)** 10 lbs. (5 kg)	1	208	5.3	18,100	34(H) 33(S)	35(H) 34(S)	36(H) 35(S)	40(H) 39(S)
			1	220	5.9	20,100				
			1	230	6.4	21,900				
			1	240	7.0	23,900				
			1	440	5.9	20,100	17	18(H) 17(S)	18	20(H) 19(S)
			1	460	6.4	21,900				
			1	480	7.0	23,900				
			1	550	5.9	20,100	14(H) 13(S)	14	15(H) 14(S)	16(H) 15(S)
			1	575	6.4	21,900				
			1	600	7.0	23,900				
10 kW	EHA072-10 208/230v - 3 ph (**23L68**) 460v - 3 ph (**23L74**) 575v - 3 ph (**23L80**) 9 lbs. (4 kg)	EHAFB-10 208/230v - 3 ph **(27L07)** 460v - 3 ph **(27L13)** 575v - 3 ph **(27L18)** 10 lbs. (5 kg)	1	208	7.5	25,600	37	38	40	44
			1	220	8.4	28,700	41	42	44	48
			1	230	9.2	31,400				
			1	240	10.0	34,200				
			1	440	8.4	28,700	20	21	21	23
			1	460	9.2	31,400				
			1	480	10.0	34,200				
			1	550	8.4	28,700	17	17	18	19
			1	575	9.2	31,400				
			1	600	10.0	34,200				
15 kW	EHA072-15 208/230v - 3 ph (**23L69**) 460v - 3 ph (**23L75**) 575v - 3 ph (**23L81**) 9 lbs. (4 kg)	EHAFB-15 208/230v - 3 ph **(27L08)** EHAFB-15/20 460v - 3 ph **(27L14)** EHAFB-15 575v - 3 ph **(27L19)** 10 lbs. (5 kg)	1	208	11.3	38,600	50	51	53	57
			1	220	12.6	43,000	56	57	59	63
			1	230	13.8	47,100				
			1	240	15.0	51,200				
			1	440	12.6	43,000	28	28	29	31
			1	460	13.8	47,100				
			1	480	15.0	51,200				
			1	550	12.6	43,000	23	23	24	25
			1	575	13.8	47,100				
			1	600	15.0	51,200				
20 kW	EHA072-20 208/230v - 3 ph (**23L70**) 460v - 3 ph (**23L76**) 575v - 3 ph (**23L82**) 12 lbs. (6 kg)	EHAFB-20 208/230v - 3 ph **(27L09)** EHAFB-20/25 460v - 3 ph **(27L15)** EHAFB-15/20 575v - 3 ph **(27L14)** 10 lbs. (5 kg)	‡2	208	15.0	51,200	63	64	66	70
			‡2	220	16.8	57,400	71	72	74	78
			‡2	230	18.4	62,800				
			‡2	240	20.0	68,300				
			1	440	16.8	57,400	35	36	37	38
			1	460	18.4	62,800				
			1	480	20.0	68,300				
			1	550	16.8	57,400	29	29	30	31
			1	575	18.4	62,800				
			1	600	20.0	68,300				
25 kW	EHA072-25 208/230v - 3 ph (**23L71**) 460v - 3 ph (**23L77**) 575v - 3 ph (**23L83**) 12 lbs. (6 kg)	EHAFB-25 208/230v - 3 ph **(27L10)** EHAFB-25/30 460v - 3 ph **(27L16)** EHAFB-20/25 575v - 3 ph **(27L15)** 10 lbs. (5 kg)	‡2	208	18.8	64,200	76	77	79	83
			‡2	220	21.0	71,700	86	87	89	93
			‡2	230	23.0	78,500				
			‡2	240	25.0	85,400				
			1	440	21.0	71,700	43	43	44	46
			1	460	23.0	78,500				
			1	480	25.0	85,400				
			1	550	21.0	71,700	35	35	36	37
			1	575	23.0	78,500				
			1	600	25.0	85,400				

NOTE — (H) indicates high efficiency units, (S) indicates standard efficiency units
†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).
‡May be used with two stage control.
*NOTE — Heater Sub-Fuse Box is required for fusing electric heat and must be ordered extra. Factory installed heaters will have fuse box installed. Also requires LTB2 Terminal Block.

OPTIONAL ELECTRIC HEAT DATA (REQUIRES UNIT FUSE BLOCK, TERMINAL BLOCK AND SUB-FUSE BOX)

LCA072(S)(H)

kW Size Required	Electric Heat Model No., Voltage & Net Weight	*Heater Only Sub-Fuse Box (Required) & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	†Total Unit (with Power Exhaust Fan) & Electric Heat Minimum Circuit Ampacity		
							1.5 hp (1.1 kW)	2 hp (1.5 kW)	3 hp (2.2 kW)
3 PHASE									
10 kW	EHA072-10 208/230v - 3 ph (**23L68**) 460v - 3 ph (**23L74**) 575v - 3 ph (**23L80**) 9 lbs. (4 kg)	EHAFB-10 208/230v - 3 ph **(27L07)** 460v - 3 ph **(27L13)** 575v - 3 ph **(27L18)** 10 lbs. (5 kg)	1	208	7.5	25,600	39	41	44
			1	220	8.4	28,700	42	44	48
			1	230	9.2	31,400			
			1	240	10.0	34,200			
			1	440	8.4	28,700	21	21	23
			1	460	9.2	31,400			
			1	480	10.0	34,200			
			1	550	8.4	28,700	17	18	19
			1	575	9.2	31,400			
			1	600	10.0	34,200			
15 kW	EHA072-15 208/230v - 3 ph (**23L69**) 460v - 3 ph (**23L75**) 575v - 3 ph (**23L81**) 9 lbs. (4 kg)	EHAFB-15 208/230v - 3 ph **(27L08)** EHAFB-15/20 460v - 3 ph **(27L14)** EHAFB-15 575v - 3 ph **(27L19)** 10 lbs. (5 kg)	1	208	11.3	38,600	51	53	57
			1	220	12.6	43,000	57	59	63
			1	230	13.8	47,100			
			1	240	15.0	51,200			
			1	440	12.6	43,000	28	29	31
			1	460	13.8	47,100			
			1	480	15.0	51,200			
			1	550	12.6	43,000	23	24	25
			1	575	13.8	47,100			
			1	600	15.0	51,200			
20 kW	EHA072-20 208/230v - 3 ph (**23L70**) 460v - 3 ph (**23L76**) 575v - 3 ph (**23L82**) 12 lbs. (6 kg)	EHAFB-20 208/230v - 3 ph **(27L09)** EHAFB-20/25 460v - 3 ph **(27L15)** EHAFB-15/20 575v - 3 ph **(27L14)** 10 lbs. (5 kg)	‡2	208	15.0	51,200	64	66	70
			‡2	220	16.8	57,400	72	74	78
			‡2	230	18.4	62,800			
			‡2	240	20.0	68,300			
			1	440	16.8	57,400	36	37	38
			1	460	18.4	62,800			
			1	480	20.0	68,300			
			1	550	16.8	57,400	29	30	31
			1	575	18.4	62,800			
			1	600	20.0	68,300			
25 kW	EHA072-25 208/230v - 3 ph (**23L71**) 460v - 3 ph (**23L77**) 575v - 3 ph (**23L83**) 12 lbs. (6 kg)	EHAFB-25 208/230v - 3 ph **(27L10)** EHAFB-25/30 460v - 3 ph **(27L16)** EHAFB-20/25 575v - 3 ph **(27L15)** 10 lbs. (5 kg)	‡2	208	18.8	64,200	77	79	83
			‡2	220	21.0	71,700	87	89	93
			‡2	230	23.0	78,500			
			‡2	240	25.0	85,400			
			1	440	21.0	71,700	43	44	46
			1	460	23.0	78,500			
			1	480	25.0	85,400			
			1	550	21.0	71,700	35	36	37
			1	575	23.0	78,500			
			1	600	25.0	85,400			
30 kW	EHA072-30 208/230v - 3 ph (**23L72**) 460v - 3 ph (**23L78**) 575v - 3 ph (**23L84**) 12 lbs. (6 kg)	EHAFB-30 208/230v - 3 ph **(27L11)** 460v - 3 ph **(27L17)** EHAFB-25/30 575v - 3 ph **(27L16)** 10 lbs. (5 kg)	‡2	208	22.5	76,800	90	92	96
			‡2	220	25.2	86,100	102	104	108
			‡2	230	27.6	94,300			
			‡2	240	30.0	102,500			
			1	440	25.2	86,100	51	52	53
			1	460	27.6	94,300			
			1	480	30.0	102,500			
			1	550	25.2	86,100	41	42	43
			1	575	27.6	94,300			
			1	600	30.0	102,500			

NOTE — (H) indicates high efficiency units, (S) indicates standard efficiency units

†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).

‡May be used with two stage control.

*NOTE — Heater Sub-Fuse Box is required for fusing electric heat and must be ordered extra. Factory installed heaters will have fuse box installed. Also requires LTB2 Terminal Block.

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

LCA/LGA036S - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1050	495	36.6	10.7	2.71	.69	.83	.96	34.6	10.1	2.91	.70	.86	.98	32.5	9.5	3.13	.72	.88	1.00	30.5	8.9	3.38	.75	.92	1.00
	1200	565	37.5	11.0	2.72	.71	.87	.99	35.4	10.4	2.93	.74	.90	1.00	33.4	9.8	3.16	.76	.93	1.00	31.3	9.2	3.42	.78	.96	1.00
	1350	635	38.3	11.2	2.73	.75	.91	1.00	36.2	10.6	2.95	.77	.94	1.00	34.1	10.0	3.19	.80	.97	1.00	32.1	9.4	3.46	.82	.99	1.00
67°F (19°C)	1050	495	39.1	11.5	2.74	.54	.66	.79	36.9	10.8	2.97	.55	.68	.82	34.8	10.2	3.22	.56	.69	.84	32.6	9.6	3.49	.57	.72	.88
	1200	565	39.9	11.7	2.76	.55	.69	.84	37.7	11.0	2.99	.56	.71	.86	35.4	10.4	3.24	.58	.73	.89	33.2	9.7	3.52	.59	.76	.92
	1350	635	40.6	11.9	2.76	.57	.72	.88	38.3	11.2	3.00	.58	.74	.91	36.0	10.6	3.27	.60	.77	.93	33.7	9.9	3.54	.61	.80	.97
71°F (22°C)	1050	495	41.9	12.3	2.78	.41	.52	.64	39.6	11.6	3.03	.41	.53	.65	37.3	10.9	3.31	.41	.54	.67	35.0	10.3	3.61	.42	.56	.69
	1200	565	42.7	12.5	2.79	.41	.54	.66	40.3	11.8	3.05	.41	.55	.68	38.0	11.1	3.34	.42	.56	.70	35.6	10.4	3.64	.42	.58	.73
	1350	635	43.4	12.7	2.80	.42	.55	.69	41.0	12.0	3.06	.42	.57	.71	38.6	11.3	3.36	.43	.58	.74	36.2	10.6	3.66	.43	.60	.77

LCA/LGA036H - HIGH EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1050	495	35.9	10.5	2.21	.72	.86	.98	34.6	10.1	2.49	.73	.88	.99	33.3	9.8	2.81	.74	.89	1.00	31.9	9.3	3.19	.76	.91	1.00
	1200	565	36.7	10.8	2.20	.75	.90	1.00	35.4	10.4	2.48	.76	.92	1.00	34.1	10.0	2.81	.77	.94	1.00	32.7	9.6	3.18	.79	.95	1.00
	1350	635	37.5	11.0	2.20	.78	.94	1.00	36.2	10.6	2.48	.80	.95	1.00	34.8	10.2	2.80	.81	.97	1.00	33.4	9.8	3.18	.83	.99	1.00
67°F (19°C)	1050	495	38.3	11.2	2.20	.56	.69	.82	36.9	10.8	2.48	.57	.70	.84	35.5	10.4	2.80	.57	.71	.86	34.0	10.0	3.17	.58	.73	.88
	1200	565	39.0	11.4	2.19	.58	.72	.87	37.7	11.0	2.48	.58	.73	.88	36.2	10.6	2.80	.59	.75	.90	34.7	10.2	3.17	.60	.77	.92
	1350	635	39.7	11.6	2.19	.60	.75	.91	38.2	11.2	2.47	.60	.77	.92	36.8	10.8	2.79	.61	.78	.94	35.2	10.3	3.17	.62	.80	.96
71°F (22°C)	1050	495	41.0	12.0	2.19	.42	.54	.67	39.6	11.6	2.47	.42	.55	.68	38.0	11.1	2.79	.43	.56	.69	36.5	10.7	3.16	.43	.56	.70
	1200	565	41.8	12.3	2.19	.42	.56	.70	40.3	11.8	2.46	.43	.57	.71	38.7	11.3	2.79	.43	.58	.72	37.1	10.9	3.15	.44	.59	.74
	1350	635	42.4	12.4	2.18	.43	.58	.73	40.9	12.0	2.46	.44	.59	.74	39.3	11.5	2.78	.44	.60	.76	37.6	11.0	3.15	.44	.61	.78

LCA/LGA042S - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1250	590	43.0	12.6	3.18	.69	.84	.97	40.9	12.0	3.46	.70	.86	.99	38.7	11.3	3.74	.72	.88	1.00	36.5	10.7	4.00	.74	.91	1.00
	1400	660	43.9	12.9	3.21	.71	.87	.99	41.7	12.2	3.49	.73	.90	1.00	39.5	11.6	3.77	.75	.92	1.00	37.2	10.9	4.04	.78	.96	1.00
	1550	730	44.7	13.1	3.23	.74	.90	1.00	42.5	12.5	3.51	.76	.93	1.00	40.2	11.8	3.80	.78	.96	1.00	37.9	11.1	4.08	.81	.98	1.00
67°F (19°C)	1250	590	45.9	13.5	3.26	.54	.66	.79	43.6	12.8	3.55	.55	.68	.82	41.2	12.1	3.84	.55	.69	.85	38.8	11.4	4.12	.57	.71	.88
	1400	660	46.6	13.7	3.28	.55	.69	.83	44.3	13.0	3.57	.56	.70	.86	41.8	12.3	3.87	.57	.72	.89	39.4	11.5	4.15	.58	.75	.92
	1550	730	47.3	13.9	3.29	.56	.71	.87	44.9	13.2	3.59	.57	.73	.90	42.4	12.4	3.89	.59	.76	.93	39.9	11.7	4.17	.60	.78	.96
71°F (22°C)	1250	590	49.0	14.4	3.33	.40	.52	.64	46.6	13.7	3.65	.41	.53	.65	44.1	12.9	3.95	.41	.54	.67	41.5	12.2	4.25	.41	.55	.69
	1400	660	49.7	14.6	3.35	.41	.54	.66	47.3	13.9	3.66	.41	.55	.68	44.7	13.1	3.98	.42	.56	.70	42.1	12.3	4.28	.42	.57	.72
	1550	730	50.4	14.8	3.37	.41	.55	.69	47.8	14.0	3.69	.42	.56	.70	45.2	13.2	4.00	.42	.57	.73	42.5	12.5	4.30	.43	.59	.76

LCA/LGA042H - HIGH EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1250	590	42.6	12.5	2.70	.73	.87	.99	41.1	12.0	3.05	.74	.88	1.00	39.5	11.6	3.45	.75	.90	1.00	37.8	11.1	3.89	.77	.92	1.00
	1400	660	43.5	12.7	2.70	.75	.91	1.00	42.0	12.3	3.05	.77	.92	1.00	40.3	11.8	3.44	.78	.94	1.00	38.6	11.3	3.89	.80	.96	1.00
	1550	730	44.3	13.0	2.69	.78	.94	1.00	42.7	12.5	3.04	.80	.96	1.00	41.1	12.0	3.44	.81	.97	1.00	39.5	11.6	3.88	.83	.99	1.00
67°F (19°C)	1250	590	45.5	13.3	2.69	.57	.70	.83	43.8	12.8	3.04	.57	.71	.85	42.1	12.3	3.43	.58	.72	.87	40.3	11.8	3.88	.59	.74	.89
	1400	660	46.3	13.6	2.69	.58	.73	.87	44.6	13.1	3.03	.59	.74	.89	42.8	12.5	3.43	.60	.76	.90	41.0	12.0	3.87	.61	.77	.93
	1550	730	46.9	13.7	2.68	.60	.76	.91	45.2	13.2	3.03	.61	.77	.92	43.4	12.7	3.43	.62	.79	.94	41.5	12.2	3.87	.63	.81	.96
71°F (22°C)	1250	590	48.7	14.3	2.68	.42	.55	.67	46.9	13.7	3.02	.43	.56	.68	45.1	13.2	3.42	.43	.56	.70	43.2	12.7	3.86	.43	.57	.71
	1400	660	49.5	14.5	2.67	.43	.57	.70	47.7	14.0	3.02	.43	.57	.72	45.8	13.4	3.41	.44	.58	.73	43.8	12.8	3.86	.44	.59	.75
	1550	730	50.1	14.7	2.67	.44	.58	.73	48.3	14.2	3.01	.44	.59	.75	46.4	13.6	3.41	.44	.60	.76	44.4	13.0	3.85	.45	.61	.78

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

LCA/LGA048S - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	48.9	14.3	3.49	.69	.84	.97	46.6	13.7	3.72	.70	.86	.99	44.2	13.0	4.00	.72	.89	1.00	41.9	12.3	4.30	.74	.91	1.00
	1600	755	50.1	14.7	3.51	.72	.88	1.00	47.7	14.0	3.76	.74	.90	1.00	45.3	13.3	4.04	.76	.93	1.00	42.9	12.6	4.34	.78	.96	1.00
	1800	850	51.0	14.9	3.54	.75	.92	1.00	48.7	14.3	3.78	.77	.94	1.00	46.3	13.6	4.07	.79	.97	1.00	43.9	12.9	4.39	.82	.99	1.00
67°F (19°C)	1400	660	52.1	15.3	3.56	.54	.66	.80	49.6	14.5	3.81	.55	.68	.82	47.1	13.8	4.10	.55	.69	.85	44.5	13.0	4.42	.57	.71	.87
	1600	755	53.1	15.6	3.58	.55	.69	.84	50.6	14.8	3.83	.56	.71	.87	47.9	14.0	4.13	.57	.73	.89	45.3	13.3	4.46	.59	.75	.92
	1800	850	53.9	15.8	3.60	.57	.72	.88	51.3	15.0	3.86	.58	.74	.91	48.6	14.2	4.16	.59	.77	.94	46.0	13.5	4.49	.61	.79	.96
71°F (22°C)	1400	660	55.7	16.3	3.63	.40	.52	.64	53.0	15.5	3.90	.41	.53	.65	50.4	14.8	4.21	.41	.54	.67	47.7	14.0	4.57	.41	.55	.69
	1600	755	56.7	16.6	3.65	.41	.54	.67	54.0	15.8	3.93	.41	.55	.69	51.2	15.0	4.24	.42	.56	.70	48.5	14.2	4.60	.42	.57	.73
	1800	850	57.4	16.8	3.67	.42	.56	.70	54.7	16.0	3.94	.42	.57	.72	51.9	15.2	4.27	.42	.58	.74	49.1	14.4	4.63	.43	.60	.77

LCA/LGA048H - HIGH EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	48.9	14.3	3.12	.68	.84	.98	47.1	13.8	3.52	.69	.85	.99	45.2	13.2	3.97	.70	.88	1.00	43.3	12.7	4.49	.72	.90	1.00
	1600	755	50.1	14.7	3.13	.72	.89	1.00	48.2	14.1	3.53	.73	.91	1.00	46.3	13.6	3.99	.75	.93	1.00	44.3	13.0	4.50	.77	.95	1.00
	1800	850	51.0	14.9	3.15	.75	.93	1.00	49.2	14.4	3.55	.77	.95	1.00	47.3	13.9	4.00	.79	.97	1.00	45.4	13.3	4.52	.81	.99	1.00
67°F (19°C)	1400	660	51.9	15.2	3.16	.53	.66	.80	50.0	14.7	3.56	.54	.67	.82	48.0	14.1	4.01	.55	.68	.84	46.0	13.5	4.53	.55	.70	.86
	1600	755	53.0	15.5	3.17	.55	.69	.85	51.0	14.9	3.57	.56	.70	.87	48.9	14.3	4.03	.57	.72	.89	46.8	13.7	4.55	.58	.74	.92
	1800	850	53.8	15.8	3.18	.57	.72	.90	51.8	15.2	3.59	.58	.74	.92	49.6	14.5	4.04	.59	.76	.94	47.5	13.9	4.55	.60	.78	.97
71°F (22°C)	1400	660	55.4	16.2	3.20	.40	.52	.64	53.4	15.6	3.61	.40	.52	.65	51.2	15.0	4.06	.40	.53	.66	49.1	14.4	4.58	.41	.54	.67
	1600	755	56.4	16.5	3.22	.40	.54	.67	54.3	15.9	3.62	.41	.54	.68	52.1	15.3	4.08	.41	.55	.69	49.8	14.6	4.60	.42	.56	.71
	1800	850	57.2	16.8	3.23	.41	.56	.70	55.0	16.1	3.64	.42	.57	.72	52.7	15.4	4.10	.42	.58	.73	50.4	14.8	4.60	.42	.59	.76

LCA/LGA060S - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1750	825	58.7	17.2	4.69	.70	.85	.97	56.2	16.5	5.05	.71	.87	.99	53.5	15.7	5.43	.73	.89	1.00	50.7	14.9	5.81	.75	.92	1.00
	2000	945	59.9	17.6	4.73	.73	.89	1.00	57.4	16.8	5.10	.74	.91	1.00	54.7	16.0	5.48	.76	.93	1.00	51.9	15.2	5.87	.79	.96	1.00
	2250	1060	61.1	17.9	4.77	.76	.93	1.00	58.5	17.1	5.15	.78	.95	1.00	55.8	16.4	5.54	.80	.97	1.00	53.0	15.5	5.93	.83	.99	1.00
67°F (19°C)	1750	825	62.3	18.3	4.81	.54	.67	.81	59.6	17.5	5.19	.55	.68	.83	56.7	16.6	5.58	.56	.70	.85	53.7	15.7	5.96	.57	.72	.88
	2000	945	63.3	18.6	4.84	.56	.70	.86	60.6	17.8	5.23	.57	.72	.88	57.6	16.9	5.62	.58	.74	.90	54.5	16.0	6.02	.59	.76	.93
	2250	1060	64.2	18.8	4.87	.58	.73	.90	61.4	18.0	5.26	.59	.75	.92	58.5	17.1	5.66	.60	.77	.94	55.3	16.2	6.06	.61	.80	.97
71°F (22°C)	1750	825	66.3	19.4	4.93	.41	.53	.65	63.5	18.6	5.34	.41	.54	.66	60.4	17.7	5.75	.41	.55	.68	57.2	16.8	6.17	.42	.56	.70
	2000	945	67.4	19.8	4.97	.41	.55	.68	64.5	18.9	5.38	.42	.56	.70	61.3	18.0	5.80	.42	.57	.71	58.0	17.0	6.21	.43	.58	.74
	2250	1060	68.3	20.0	5.00	.42	.56	.71	65.3	19.1	5.41	.42	.58	.73	62.1	18.2	5.83	.43	.59	.75	58.7	17.2	6.25	.43	.60	.78

LCA/LGA060H - HIGH EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1750	825	60.7	17.8	3.93	.71	.86	.99	58.7	17.2	4.43	.72	.88	1.00	56.6	16.6	5.00	.73	.89	1.00	54.3	15.9	5.64	.74	.92	1.00
	2000	945	62.1	18.2	3.95	.74	.91	1.00	60.0	17.6	4.45	.75	.93	1.00	57.9	17.0	5.02	.77	.94	1.00	55.6	16.3	5.65	.79	.96	1.00
	2250	1060	63.3	18.6	3.96	.78	.95	1.00	61.2	17.9	4.46	.79	.97	1.00	59.1	17.3	5.03	.81	.98	1.00	56.8	16.6	5.66	.83	1.00	1.00
67°F (19°C)	1750	825	64.3	18.8	3.97	.55	.68	.83	62.1	18.2	4.47	.56	.69	.84	59.8	17.5	5.04	.56	.71	.86	57.4	16.8	5.68	.57	.72	.88
	2000	945	65.4	19.2	3.98	.57	.72	.87	63.2	18.5	4.49	.58	.73	.89	60.8	17.8	5.05	.58	.74	.91	58.3	17.1	5.70	.59	.76	.93
	2250	1060	66.4	19.5	3.99	.59	.75	.92	64.1	18.8	4.49	.60	.77	.94	61.7	18.1	5.07	.61	.78	.96	59.1	17.3	5.71	.62	.81	.98
71°F (22°C)	1750	825	68.4	20.0	4.01	.41	.53	.66	66.0	19.3	4.52	.41	.54	.67	63.6	18.6	5.09	.41	.55	.68	61.0	17.9	5.73	.42	.56	.70
	2000	945	69.5	20.4	4.03	.42	.56	.69	67.1	19.7	4.53	.42	.56	.71	64.6	18.9	5.10	.42	.57	.72	61.9	18.1	5.74	.43	.58	.74
	2250	1060	70.4	20.6	4.03	.42	.58	.73	67.9	19.9	4.54	.43	.59	.74	65.3	19.1	5.11	.43	.60	.76	62.6	18.3	5.75	.44	.61	.78

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

LCA/LGA072S - STANDARD EFFICIENCY - COOLING CAPACITY

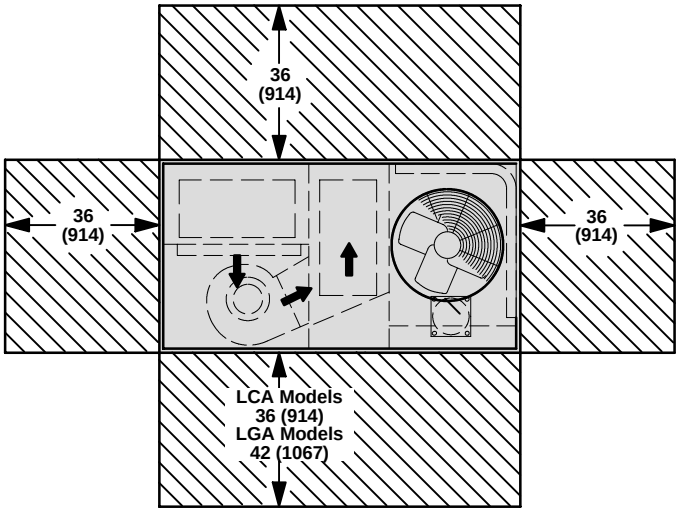
Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																								
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	2000	945	72.4	21.2	5.33	.69	.84	.96	70.0	20.5	5.97	.70	.85	.98	67.5	19.8	6.71	.71	.87	.99	64.7	19.0	7.54	.73	.89	1.00
	2400	1135	74.5	21.8	5.38	.73	.89	1.00	72.0	21.1	6.04	.75	.91	1.00	69.5	20.4	6.77	.76	.93	1.00	66.7	19.5	7.59	.78	.95	1.00
	2800	1320	76.3	22.4	5.43	.78	.94	1.00	73.8	21.6	6.07	.79	.96	1.00	71.2	20.9	6.81	.81	.98	1.00	68.4	20.0	7.65	.83	.99	1.00
67°F (19°C)	2000	945	76.7	22.5	5.43	.55	.67	.80	74.1	21.7	6.08	.55	.68	.81	71.4	20.9	6.82	.56	.69	.83	68.4	20.0	7.65	.56	.70	.85
	2400	1135	78.5	23.0	5.48	.57	.71	.86	75.8	22.2	6.13	.57	.72	.88	73.0	21.4	6.87	.58	.74	.90	69.9	20.5	7.71	.59	.76	.92
	2800	1320	79.9	23.4	5.52	.59	.76	.92	77.2	22.6	6.17	.60	.77	.93	74.2	21.7	6.91	.61	.79	.95	71.2	20.9	7.75	.62	.81	.97
71°F (22°C)	2000	945	81.4	23.9	5.56	.41	.53	.65	78.7	23.1	6.21	.41	.53	.66	75.8	22.2	6.96	.41	.54	.67	72.7	21.3	7.80	.42	.55	.68
	2400	1135	83.2	24.4	5.61	.42	.55	.69	80.4	23.6	6.26	.42	.56	.70	77.4	22.7	7.01	.42	.57	.72	74.2	21.7	7.86	.43	.58	.73
	2800	1320	84.5	24.8	5.65	.43	.58	.73	81.6	23.9	6.30	.43	.59	.75	78.5	23.0	7.06	.43	.60	.77	75.2	22.0	7.90	.44	.61	.79

LCA/LGA072H - HIGH EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																								
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	2000	945	72.3	21.2	5.05	.70	.85	.98	69.9	20.5	5.64	.71	.86	.99	67.3	19.7	6.34	.72	.88	1.00	64.4	18.9	7.16	.73	.90	1.00
	2400	1135	74.6	21.9	5.09	.74	.91	1.00	72.0	21.1	5.70	.75	.93	1.00	69.3	20.3	6.40	.77	.95	1.00	66.4	19.5	7.22	.79	.97	1.00
	2800	1320	76.4	22.4	5.14	.79	.96	1.00	73.9	21.7	5.74	.80	.98	1.00	71.3	20.9	6.46	.82	.99	1.00	68.4	20.0	7.28	.84	1.00	1.00
67°F (19°C)	2000	945	76.7	22.5	5.15	.55	.67	.81	74.0	21.7	5.75	.55	.68	.83	71.2	20.9	6.46	.56	.70	.84	68.1	20.0	7.27	.57	.71	.87
	2400	1135	78.5	23.0	5.20	.57	.72	.88	75.9	22.2	5.80	.58	.73	.89	72.9	21.4	6.51	.59	.75	.91	69.6	20.4	7.34	.60	.77	.94
	2800	1320	80.0	23.4	5.24	.60	.77	.94	77.2	22.6	5.84	.61	.78	.95	74.2	21.7	6.55	.61	.80	.97	70.8	20.7	7.37	.63	.82	.99
71°F (22°C)	2000	945	81.5	23.9	5.27	.41	.53	.65	78.7	23.1	5.88	.41	.54	.66	75.8	22.2	6.58	.41	.54	.67	72.4	21.2	7.41	.42	.55	.69
	2400	1135	83.3	24.4	5.32	.42	.56	.70	80.4	23.6	5.93	.42	.57	.71	77.3	22.7	6.64	.42	.58	.72	73.8	21.6	7.48	.43	.59	.74
	2800	1320	84.7	24.8	5.36	.43	.59	.74	81.7	23.9	5.97	.43	.60	.76	78.5	23.0	6.68	.44	.61	.78	74.9	22.0	7.50	.44	.62	.80

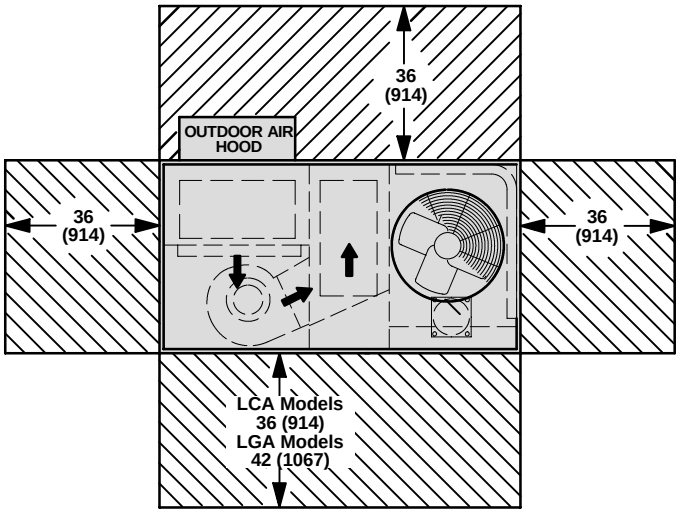
INSTALLATION CLEARANCES - INCHES (MM)

BASIC UNIT



NOTE—Top Clearance Unobstructed.

UNIT WITH ECONOMIZER DAMPER SECTION OR OUTDOOR AIR DAMPER



NOTE—Top Clearance Unobstructed.

BELT DRIVE BLOWER DATA

BLOWER TABLE INCLUDES RESISTANCE FOR LCA BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

ADD: 1 - Wet indoor coil air resistance of selected unit.
2 - Any factory installed options air resistance (electric heat section, economizer, etc.)
3 - Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output and drive required.
See Page 26 for blower motors and drives and Page 27 for wet coil and options/accessory air resistance data.

MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT
7, 10, 15, 20 kW Electric Heat - 1400 cfm (660 L/s) 208/230 volt, 1500 cfm (710 L/s) 460 & 575 volt
25 kW Electric Heat - 2000 cfm (945 L/s)
30 kW Electric Heat - 2400 cfm (1135 L/s)

NOTE - LCA UNITS ARE NOT U.L. APPROVED FOR OPERATION ABOVE 1325 RPM.

BOLD ITALICS INDICATE FIELD FURNISHED DRIVE.

LCA BASE UNIT

Air Volume cfm (L/s)	Total Static Pressure — Inches Water Gauge (Pa)																	
	.00 (00)		.20 (50)		.40 (100)		.60 (150)		.80 (200)		1.00 (250)		1.20 (300)		1.40 (350)		1.60 (400)		1.80 (450)	
	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)
1000 (474)	***330***	***0.05 (0.04)***	***470***	***0.10 (0.07)***	***605***	***0.20 (0.15)***	725	0.30 (0.22)	830	0.40 (0.30)	925	0.55 (0.41)	1015	0.70 (0.52)	1095	0.90 (0.67)	1175	1.10 (0.82)	1250	1.30 (0.97)
1200 (568)	***375***	***0.10 (0.07)***	***505***	***0.15 (0.11)***	630	0.25 (0.19)	740	0.35 (0.26)	840	0.45 (0.34)	930	0.60 (0.45)	1015	0.75 (0.56)	1095	0.90 (0.67)	1170	1.10 (0.82)	1240	1.30 (0.97)
1400 (663)	***425***	***0.15 (0.11)***	***545***	***0.20 (0.15)***	660	0.30 (0.22)	760	0.40 (0.30)	855	0.50 (0.37)	940	0.65 (0.48)	1020	0.80 (0.60)	1100	0.95 (0.71)	1170	1.10 (0.82)	1240	1.35 (1.01)
1600 (757)	***475***	***0.20 (0.15)***	***590***	***0.30 (0.22)***	695	0.40 (0.30)	790	0.50 (0.37)	875	0.60 (0.45)	960	0.75 (0.56)	1035	0.90 (0.67)	1110	1.05 (0.78)	1180	1.25 (0.93)	1245	1.40 (1.04)
1800 (850)	***535***	***0.30 (0.22)***	640	0.40 (0.30)	735	0.50 (0.37)	820	0.60 (0.45)	905	0.70 (0.52)	980	0.85 (0.63)	1055	1.00 (0.75)	1125	1.15 (0.86)	1195	1.35 (1.01)	1255	1.50 (1.12)
2000 (945)	***595***	***0.40 (0.30)***	690	0.50 (0.37)	775	0.60 (0.45)	860	0.70 (0.52)	935	0.85 (0.63)	1010	1.00 (0.75)	1080	1.15 (0.86)	1145	1.30 (0.97)	1210	1.50 (1.12)	1270	1.65 (1.23)
2200 (1040)	655	0.55 (0.41)	740	0.65 (0.48)	820	0.75 (0.56)	895	0.85 (0.63)	970	1.00 (0.75)	1040	1.15 (0.86)	1105	1.30 (0.97)	1170	1.45 (1.08)	1230	1.65 (1.23)	1290	1.85 (1.38)
2400 (1135)	710	0.70 (0.52)	790	0.80 (0.60)	870	0.95 (0.71)	940	1.05 (0.78)	1010	1.20 (0.90)	1075	1.35 (1.01)	1135	1.50 (1.12)	1200	1.70 (1.27)	1260	1.85 (1.38)	1315	2.05 (1.53)
2600 (1229)	770	0.90 (0.67)	845	1.00 (0.75)	915	1.15 (0.86)	985	1.30 (0.97)	1050	1.40 (1.04)	1110	1.55 (1.16)	1170	1.75 (1.31)	1230	1.90 (1.42)	1285	2.10 (1.57)	- - - -	
2800 (1323)	830	1.10 (0.82)	900	1.25 (0.93)	965	1.35 (1.01)	1030	1.50 (1.12)	1090	1.65 (1.23)	1150	1.85 (1.38)	1210	2.00 (1.49)	1265	2.20 (1.64)	1320	2.35 (1.75)	- - - -	
3000 (1418)	890	1.35 (1.01)	955	1.50 (1.12)	1015	1.65 (1.23)	1075	1.80 (1.34)	1135	1.95 (1.45)	1190	2.10 (1.57)	1245	2.30 (1.72)	1300	2.50 (1.87)	- - - -		- - - -	

BLOWER TABLE INCLUDES RESISTANCE FOR LGA BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

ADD: 1 - Wet indoor coil air resistance of selected unit.
2 - Any factory installed options air resistance (economizer, etc.)
3 - Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output and drive required.
See Page 26 for blower motors and drives and Page 27 for wet coil and options/accessory air resistance data.

NOTE - LGA UNITS ARE NOT U.L. APPROVED FOR OPERATION ABOVE 1325 RPM.

BOLD ITALICS INDICATE FIELD FURNISHED DRIVE.

LGA BASE UNIT

Air Volume cfm (L/s)	Total Static Pressure — Inches Water Gauge (Pa)																	
	.00 (00)		.20 (50)		.40 (100)		.60 (150)		.80 (200)		1.00 (250)		1.20 (300)		1.40 (350)		1.60 (400)		1.80 (450)	
	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)
1000 (470)	***375***	***0.10 (0.07)***	***515***	***0.15 (0.11)***	645	0.20 (0.15)	760	0.30 (0.22)	860	0.45 (0.34)	955	0.60 (0.45)	1040	0.75 (0.56)	1120	1.00 (0.75)	1195	1.20 (0.90)	1270	1.45 (1.08)
1200 (565)	***430***	***0.15 (0.11)***	***560***	***0.20 (0.15)***	680	0.25 (0.19)	785	0.35 (0.26)	885	0.50 (0.37)	970	0.65 (0.48)	1055	0.80 (0.60)	1130	1.00 (0.75)	1205	1.20 (0.90)	1275	1.45 (1.08)
1400 (660)	***490***	***0.20 (0.15)***	615	0.30 (0.22)	725	0.35 (0.26)	820	0.45 (0.34)	910	0.55 (0.41)	995	0.70 (0.52)	1075	0.85 (0.63)	1150	1.05 (0.78)	1220	1.25 (0.93)	1285	1.45 (1.08)
1600 (755)	***560***	***0.35 (0.26)***	670	0.40 (0.30)	770	0.50 (0.37)	860	0.60 (0.45)	945	0.70 (0.52)	1025	0.80 (0.60)	1100	0.95 (0.71)	1170	1.15 (0.86)	1240	1.30 (0.97)	1305	1.50 (1.12)
1800 (850)	630	0.50 (0.37)	730	0.55 (0.41)	820	0.65 (0.48)	905	0.75 (0.56)	985	0.85 (0.63)	1060	1.00 (0.75)	1130	1.10 (0.82)	1200	1.30 (0.97)	1265	1.45 (1.08)	1325	1.65 (1.23)
2000 (945)	700	0.65 (0.48)	790	0.75 (0.56)	875	0.85 (0.63)	955	0.95 (0.71)	1030	1.05 (0.78)	1100	1.20 (0.90)	1165	1.30 (0.97)	1230	1.45 (1.08)	1295	1.65 (1.23)	- - - -	
2200 (1040)	770	0.85 (0.63)	855	0.95 (0.71)	930	1.05 (0.78)	1005	1.15 (0.86)	1075	1.30 (0.97)	1140	1.40 (1.04)	1205	1.55 (1.16)	1265	1.70 (1.27)	1325	1.85 (1.38)	- - - -	
2400 (1135)	840	1.15 (0.86)	920	1.25 (0.93)	990	1.35 (1.01)	1060	1.45 (1.08)	1125	1.55 (1.16)	1190	1.70 (1.27)	1250	1.85 (1.38)	1305	2.00 (1.49)	- - - -		- - - -	
2600 (1225)	910	1.45 (1.08)	980	1.55 (1.16)	1050	1.65 (1.23)	1115	1.75 (1.31)	1175	1.90 (1.42)	1235	2.05 (1.53)	1295	2.20 (1.64)	- - - -		- - - -		- - - -	
2800 (1320)	980	1.80 (1.34)	1050	1.90 (1.42)	1110	2.05 (1.53)	1170	2.15 (1.60)	1230	2.30 (1.72)	1285	2.40 (1.79)	- - - -		- - - -		- - - -		- - - -	
3000 (1415)	1050	2.20 (1.64)	1115	2.35 (1.75)	1175	2.45 (1.83)	1230	2.60 (1.94)	1285	2.70 (2.01)	- - - -		- - - -		- - - -		- - - -		- - - -	

BELT DRIVE BLOWER DATA

FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

Motor Outputs				RPM Range			
Nominal hp	Maximum hp	Nominal kW	Maximum kW	Drive 1	Drive 2	Drive 3	Drive 4
Standard or High Efficiency - 1.5	1.72	1.1	1.3	615 - 920	800 - 1105	- - - -	- - - -
Standard or High Efficiency - 2	2.3	1.5	1.7	- - - -	- - - -	920 - 1230	- - - -
Standard Efficiency Only - 3	3.45	2.2	2.6	- - - -	- - - -	- - - -	1070 - 1325

*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 by Lennox 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.

DIRECT DRIVE BLOWER DATA

LGA/LCA036-060 DIRECT DRIVE BLOWER PERFORMANCE @ 208 VOLTS (Downflow)

External Static Pressure		Air Volume at Various Blower Speeds									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2530	1195	2265	1070	1970	930	1720	810	1440	680
.10	25	2495	1175	2235	1055	1945	920	1700	800	1430	675
.20	50	2450	1155	2200	1040	1915	905	1670	790	1415	670
.30	75	2405	1135	2160	1020	1880	890	1640	775	1390	655
.40	100	2355	1110	2115	1000	1840	870	1605	755	1360	640
.50	125	2300	1085	2065	975	1795	845	1565	740	1330	630
.60	150	2235	1055	2010	950	1745	825	1515	715	1290	610
.70	175	2165	1020	1945	920	1690	800	1460	690	1245	590
.80	200	2090	985	1875	885	1620	765	1400	660	1195	565
.90	225	2000	945	1790	845	1550	730	1330	630	1130	535
1.00	250	1895	895	1695	800	1460	690	1250	590	1055	500
1.10	275	1770	835	1580	745	1360	640	1160	545	- - - -	- - - -
1.20	300	1620	765	1440	680	1240	585	1055	500	- - - -	- - - -

NOTE — All air data is measured external to unit with 2 row dry coil and 2 inch (51 mm) filters.

LGA/LCA036-060 DIRECT DRIVE BLOWER PERFORMANCE @ 230 VOLTS (Downflow)

External Static Pressure		Air Volume at Various Blower Speeds									
		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2750	1300	2500	1180	2245	1060	1955	925	1630	770
.10	25	2705	1275	2470	1165	2215	1045	1925	910	1600	755
.20	50	2650	1250	2430	1145	2180	1030	1890	890	1570	740
.30	75	2585	1220	2390	1130	2140	1010	1850	875	1535	725
.40	100	2535	1195	2340	1105	2100	990	1810	855	1500	710
.50	125	2475	1170	2290	1080	2050	965	1760	830	1455	685
.60	150	2405	1135	2225	1050	1995	940	1705	805	1405	665
.70	175	2330	1100	2155	1015	1930	910	1640	775	1365	645
.80	200	2245	1060	2075	980	1865	880	1575	745	1310	620
.90	225	2155	1015	1975	930	1780	840	1495	705	1240	585
1.00	250	2050	965	1860	880	1690	800	1405	665	1150	545
1.10	275	1935	915	1720	810	1585	750	1290	610	1040	490
1.20	300	1805	850	1560	735	1450	685	1160	545	- - - -	- - - -

NOTE — All air data is measured external to unit with 2 row dry coil and 2 inch (51 mm) filters.

LGA/LCA036-060 DIRECT DRIVE BLOWER PERFORMANCE @ 460/575 VOLTS (Downflow)

External Static Pressure		Air Volume at Various Blower Speeds					
		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2820	1330	2460	1160	1975	930
.10	25	2770	1305	2430	1145	1950	920
.20	50	2720	1285	2395	1130	1920	905
.30	75	2670	1260	2345	1105	1885	890
.40	100	2610	1230	2310	1090	1845	870
.50	125	2545	1200	2260	1065	1800	850
.60	150	2475	1170	2200	1040	1755	830
.70	175	2400	1130	2140	1010	1700	800
.80	200	2315	1090	2065	975	1635	770
.90	225	2220	1045	1980	935	1565	740
1.00	250	2115	1000	1880	885	1480	700
1.10	275	2000	945	1760	830	1370	647
1.20	300	1860	875	1615	760	1260	595

NOTE — All air data is measured external to unit with 2 row dry coil and 2 inch (51 mm) filters.

BLOWER DATA

AIR RESISTANCE - FACTORY INSTALLED OPTIONS/FIELD INSTALLED ACCESSORIES

Air Volume		Total Resistance — inches water gauge (Pa)				
		Wet Indoor Coil				
cfm	L/s	LCA/LGA 036S/036H/042S/ 042H/048S/060S (2 row)	LCA/LGA 048H/060H/072S (3 row)	LCA/LGA072H (4 row)	Electric Heat (LCA Models)	Economizer
1000	470	0.02 (4)	0.05 (12)	0.07 (18)	0.06 (15)	0.04 (10)
1200	565	0.03 (8)	0.06 (16)	0.09 (24)	0.09 (22)	0.04 (10)
1400	660	0.04 (10)	0.08 (21)	0.12 (31)	0.12 (30)	0.04 (10)
1600	755	0.05 (13)	0.10 (26)	0.15 (38)	0.16 (40)	0.04 (10)
1800	850	0.06 (16)	0.12 (31)	0.18 (46)	0.21 (52)	0.05 (12)
2000	945	0.07 (18)	0.14 (36)	0.21 (53)	0.25 (62)	0.05 (12)
2200	1040	0.09 (21)	0.17 (42)	0.25 (62)	0.31 (77)	0.05 (12)
2400	1135	0.11 (27)	0.19 (48)	0.28 (70)	0.37 (92)	0.05 (12)
2600	1225	0.13 (32)	0.22 (54)	0.31 (77)	0.43 (107)	0.06 (15)
2800	1320	0.16 (40)	0.25 (63)	0.36 (88)	0.50 (125)	0.06 (15)
3000	1415	0.20 (50)	0.29 (71)	0.41 (101)	0.58 (144)	0.06 (15)

AIR RESISTANCE - CEILING DIFFUSERS

Air Volume		Total Resistance — inches water gauge (Pa)							
		RTD9 Step-Down Diffuser			FD9 Flush Diffuser	RTD11 Step-Down Diffuser			FD11 Flush Diffuser
cfm	L/s	2 Ends Open	1 Side 2 Ends Open	All Ends & Sides Open		2 Ends Open	1 Side 2 Ends Open	All Ends & Sides Open	
1000	470	0.19 (47)	0.16 (40)	0.14 (35)	0.14 (35)	- - - -	- - - -	- - - -	- - - -
1200	565	0.25 (62)	0.20 (50)	0.17 (42)	0.17 (42)	- - - -	- - - -	- - - -	- - - -
1400	660	0.33 (82)	0.26 (65)	0.20 (50)	0.20 (50)	- - - -	- - - -	- - - -	- - - -
1600	755	0.43 (107)	0.32 (80)	0.20 (50)	0.24 (60)	- - - -	- - - -	- - - -	- - - -
1800	850	0.56 (139)	0.40 (100)	0.30 (75)	0.30 (75)	0.13 (32)	0.11 (27)	0.09 (22)	0.09 (22)
2000	945	0.73 (182)	0.50 (125)	0.36 (90)	0.36 (90)	0.15 (37)	0.13 (32)	0.11 (27)	0.10 (25)
2200	1040	0.95 (237)	0.63 (157)	0.44 (110)	0.44 (110)	0.18 (45)	0.15 (37)	0.12 (30)	0.12 (30)
2400	1135	- - - -	- - - -	- - - -	- - - -	0.21 (52)	0.18 (45)	0.15 (37)	0.14 (35)
2600	1225	- - - -	- - - -	- - - -	- - - -	0.24 (60)	0.21 (52)	0.18 (45)	0.17 (42)
2800	1320	- - - -	- - - -	- - - -	- - - -	0.27 (67)	0.24 (60)	0.21 (52)	0.20 (50)
3000	1415	- - - -	- - - -	- - - -	- - - -	0.32 (80)	0.29 (72)	0.25 (62)	0.25 (62)

AIR THROW DATA

RTD9-65 CEILING DIFFUSER

Air Volume		[1] Effective Throw	
cfm	L/s	ft.	m
1000	470	10-17	3-5
1200	565	11-18	3-5
1400	660	12-19	4-6
1600	755	12-20	4-6
1800	850	13-21	4-6
2000	945	14-23	4-7
2200	1040	16-25	5-8
RTD11-95 CEILING DIFFUSER			
2600	1225	24-29	7-9
2800	1320	25-30	8-9
3000	1415	27-33	8-10
3200	1510	28-35	9-11
3400	1605	30-37	9-11

[1] Effective throw based on terminal velocities of 75 ft. (22.9 m) per minute.

AIR THROW DATA

FD9-65 CEILING DIFFUSER

Air Volume		[1] Effective Throw — ft. (m)	
cfm	L/s	ft.	m
1000	470	15-20	5-6
1200	565	16-22	5-7
1400	660	17-24	5-7
1600	755	18-25	5-7
1800	850	20-28	6-9
2000	945	21-29	6-9
2200	1040	22-30	7-9
FD11-95 CEILING DIFFUSER			
2600	1225	19-24	6-7
2800	1320	20-28	6-9
3000	1415	21-29	6-9
3200	1510	22-29	7-9
3400	1605	22-30	7-9

[1] Effective throw based on terminal velocities of 75 ft. (22.9 m) per minute.

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure		Air Volume Exhausted	
in. w.g.	Pa	cfm	L/s
0	0	1900	370
0.05	12	1745	825
0.10	25	1570	740
0.15	37	1400	660
0.20	50	1230	580
0.25	62	1060	500
0.30	75	970	460
0.35	87	800	380

GUIDE SPECIFICATIONS

Prepared for the guidance of architects, consulting engineers and mechanical contractors.

General *— Furnish and install a single package air to air DX mechanical cooling system or cooling and gas fired heating system, 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 installed weight shall not be more than lbs. (kg). Entire unit shall have a width of not more than inches (mm), a depth of not more than inches (mm) and an overall height of not more than inches (mm). The equipment shall be shipped completely factory assembled, precharged, piped and wired internally ready for field connections. In addition, 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. All air distribution ducts shall be fiberglass or ga. galvanized steel insulated with inch (mm) thick lb./ft.^{3} (kg/m^3) density fiberglass or equivalent.*

Approvals *— All electrical components shall have U.L. and U.L.C. 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. Optional Stainless Steel Heat Exchangers shall have a limited warranty for a full fifteen years (LGA Models). Compressors have a limited warranty for a full five years. Integrated Modular Control shall have a limited warranty for a full 3 years. All other components have a limited warranty for one year. Refer to the Lennox Equipment Limited Warranty certificate included with the unit for details.*

Cooling System *— The total certified cooling capacity shall not be less than Btuh (kW) with an indoor coil air volume of cfm (L/s), an entering wet bulb air temperature of °F (°C), an entering dry bulb air temperature of °F (°C) and an outdoor coil entering temperature of °F (°C). The compressor power input shall not exceed kW at these conditions.*

The coils shall be non-ferrous construction with aluminum fins mechanically bonded to durable copper tubes. Coils shall be pressure leak tested. Coil face area shall be not less than sq. ft. (m^2) (indoor coil) and sq. ft. (m^2) (outdoor coil). Outdoor coils shall be formed coil construction.

Compressor shall be resiliently mounted, have overload protection and crankcase heater. The refrigeration system shall have discharge suction and liquid line gauge ports, thermostatic expansion valve, high pressure switch, low pressure switch, drier, freezestat and full refrigerant charge. Optional service valves shall be available. All models shall have low ambient operation down to 0°F (-17.7°C). All models shall be rated in accordance with ARI Standard 210/240-94.

Heating System (LGA Models) *— The heating capacity output shall be Btuh (kW) with a gas input of Btuh (kW).*

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 combustion 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 U.L./U.L.C. design certified for outdoor installation. Optional stainless steel heat exchanger shall be available for applications where mixed air temperature is between 30 and 45° F (-1 and 7°C).

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 bottom or side power connection entry. Indoor coil condensate drain extended outside cabinet shall be provided. Lifting holes shall be provided for rigging.*

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

Supply Air Blower *— Centrifugal supply air blower shall be driven by a multi-speed direct drive motor or belt drive motor with ball bearings and adjustable drive. Blower assembly shall be accessible 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. Blower shall be capable of delivering cfm (L/s) at an external static pressure of inches water gauge (Pa) requiring not more than bhp (W) and rpm.*

Integrated Modular Control (IMC) *— Solid state control board shall be provided to operate unit. Built-in functions shall include: blower on/off delay, built-in control parameter defaults, service relay output, dirty filter switch input, dehumidistat input, economizer control, electric heat staging, ETM compatible, unit diagnosis, diagnostics code storage, gas valve delay between stages, indoor air quality input, low ambient controls, minimum run time, night setback mode, smoke alarm mode, low pressure control, thermostat bounce delay, three digit display, °F or °C display, 2 stage heat/3 stage cool thermostat compatible and warm up mode.*

Outdoor Coil Fan *— Direct drive propeller type outdoor coil fan shall discharge vertically and be direct driven by a hp (W) motor. 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 furnished shall have not less than sq. ft. (m^2) of free area.*

OPTIONAL ACCESSORIES

Additive Electric Heaters (LCA Models) *— The certified total heating capacity output shall be Btuh with kW input at volts power supply.*

Electric heaters shall be available for factory or 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.

Blower Proving Switch *— Furnish and factory install air pressure switch to monitor blower operation.*

Ceiling Diffusers *— Furnish and install a (flush or stepdown) optional combination ceiling supply and return air diffuser. It shall be capable of not less than ft. (m) radius of effective throw. Supply and return transitions shall be available, for field installation in the roof mounting frame, to provide duct connection to the diffuser.*

Coil Guards *— Furnish and install painted, galvanized steel coil guards.*

Control Systems *— Shall provide a selection of control systems to automatically operate the mechanical equipment through the heating or cooling and ventilating cycles as required.*

Corrosion Protection *— Furnish and factory apply phenolic epoxy coating to either or both of the following:*

Outdoor coils with painted outdoor base section. Indoor coil with painted indoor base section and painted blower housings.

Dirty Filter Switch *— Furnish and install pressure switch that indicates dirty filter, relays information to Integrated Modular Control.*

Dehumidistat *— Furnish and install dehumidistat, relays information to Integrated Modular Control.*

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 (on unit IMC board) shall consist of adjustable minimum positioner, enthalpy setpoint and DIP switches for setting type of control logic 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 factory or field installation.*

Gravity Exhaust Dampers *— Pressure operated dampers shall be available for factory or 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.*

High Efficiency Blower Motor *— Furnish and factory install high efficiency belt drive blower motor. Not available in 1.5 hp (1.1 kW) (1ph) or 3 hp (2.2 kW) size.*

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_2 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. Motorized 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 factory or 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 gravity exhaust damper. Motor shall be overload protected. Fan shall be field installed between economizer and gravity exhaust dampers.*

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 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 area. Height of frame shall be inches (mm). 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.*

Service Valves (LCA/LGA) *— Furnish and factory install fully serviceable brass service valves in discharge and liquid lines. Shall allow refrigerant pump down to high side of system for servicing of low side.*

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

Terminal Block (LCA Models) *— Shall be required for units without disconnect switch but with single point power supply and electric heat.*

Unit Fuse Block (LCA Models) *— Shall be required for units with single point power supply and electric heat.*

DIMENSIONS - INCHES (MM) — LCA MODELS

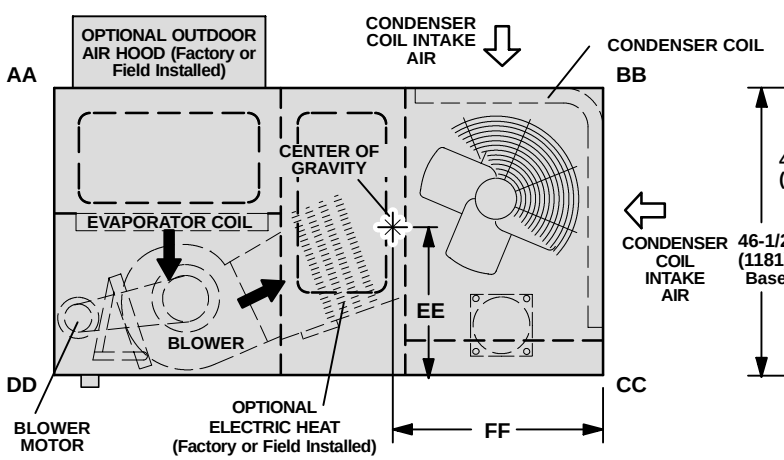
Shown With Electric Heat, Economizer Dampers, Power Exhaust Fan, Convenience Outlet, Disconnect Belt Drive Blower

CORNER WEIGHTS

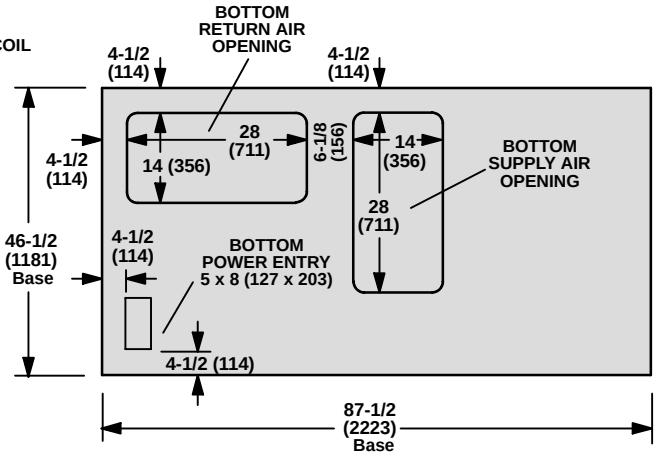
Model No.	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
LCA036	126	57	143	65	200	91	176	80
LCA042	126	57	143	65	200	91	176	80
LCA048	133	60	154	70	209	95	180	82
LCA060	131	59	154	70	216	98	184	83
LCA072	132	60	150	68	215	98	189	86

CENTER OF GRAVITY

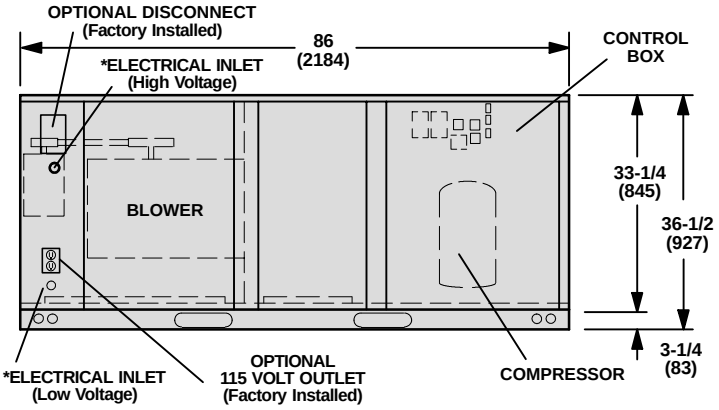
Model No.	EE		FF	
	in.	mm	in.	mm
LCA036	19-1/4	489	41	1041
LCA042	19-1/4	489	41	1041
LCA048	19-5/8	498	40-1/2	1029
LCA060	19-1/4	489	40-1/2	1029
LCA072	19	483	41	1041



TOP VIEW

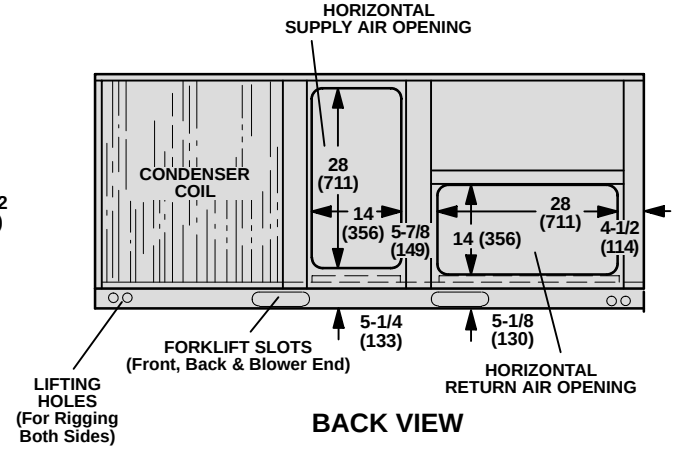


TOP VIEW BASE SECTION

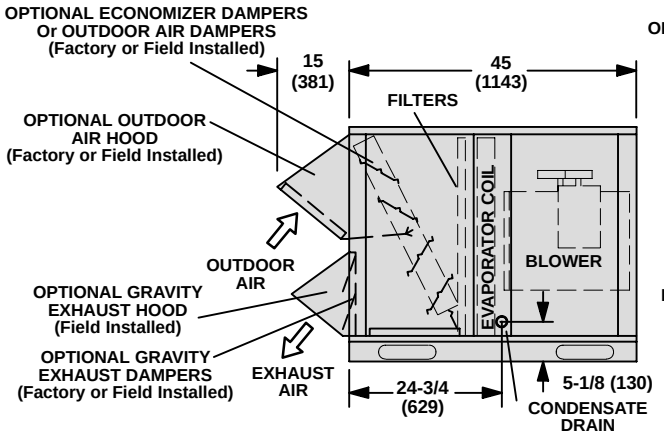


FRONT VIEW

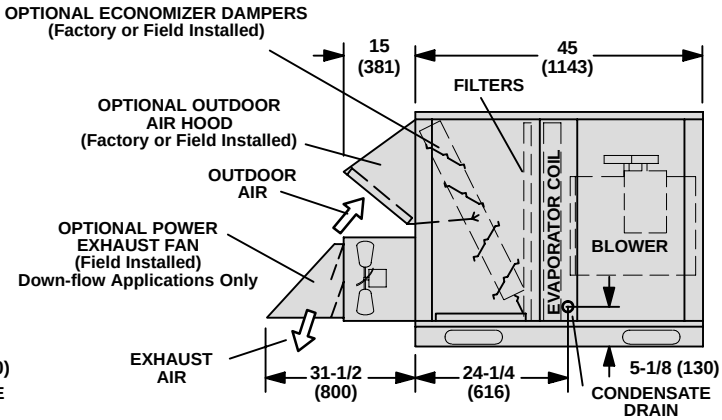
***When Factory Installed Disconnect is Not Used.**



BACK VIEW



LEFT END VIEW



LEFT END VIEW (Power Exhaust)

DIMENSIONS - INCHES (MM) — LGA MODELS

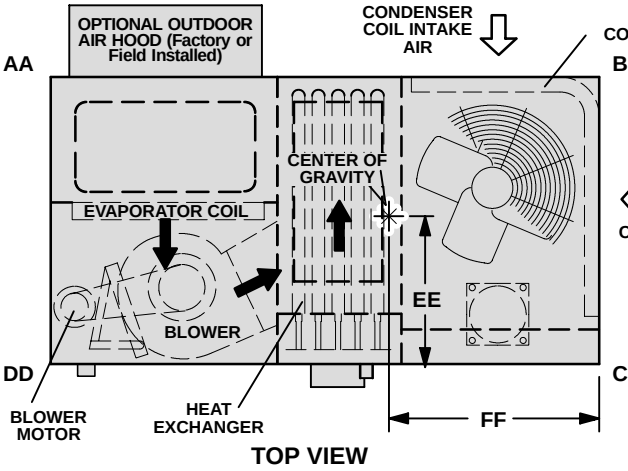
Shown With Economizer Dampers, Power Exhaust Fan, Convenience Outlet, Disconnect, Belt Drive Blower

CORNER WEIGHTS

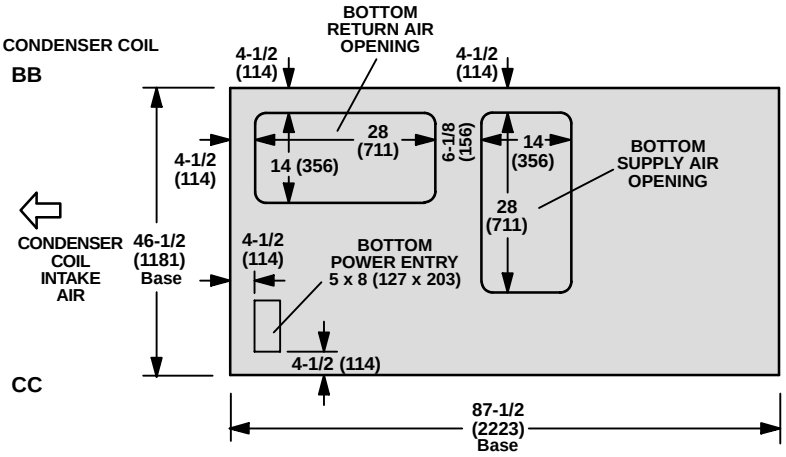
Model No.	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
LGA036	120	54	146	66	215	98	176	80
LGA042	120	54	146	66	215	98	176	80
LGA048	146	66	158	72	227	103	209	95
LGA060	146	66	160	73	233	106	211	96
LGA072	161	73	174	79	228	104	212	96

CENTER OF GRAVITY

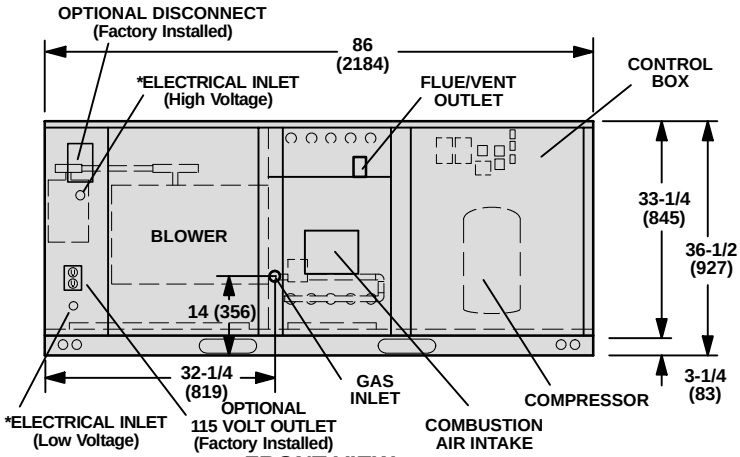
Model No.	EE		FF	
	in.	mm	in.	mm
LGA036	18-3/4	476	39-3/8	1000
LGA042	18-3/4	476	39-3/8	1000
LGA048	19	483	42	1067
LGA060	18-7/8	479	41-5/8	1057
LGA072	20-1/8	511	42-1/8	1070



TOP VIEW

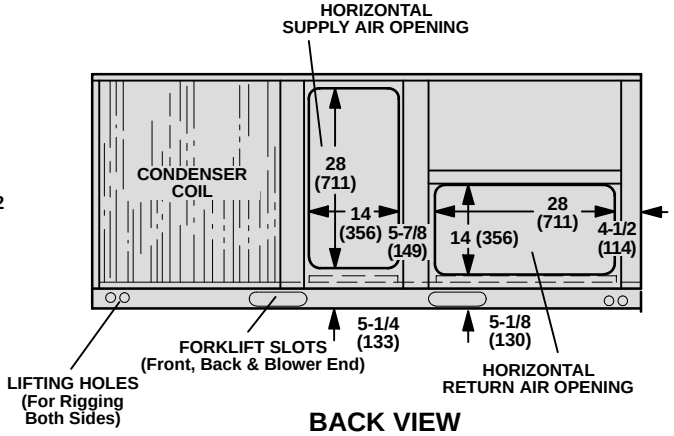


TOP VIEW BASE SECTION

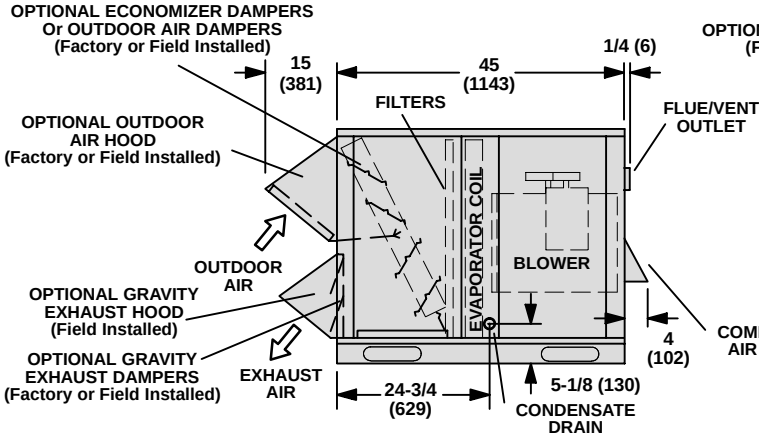


FRONT VIEW

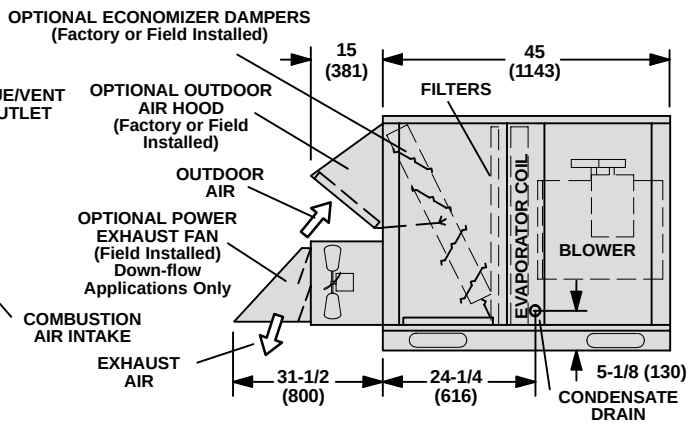
*When Factory Installed Disconnect is Not Used.



BACK VIEW



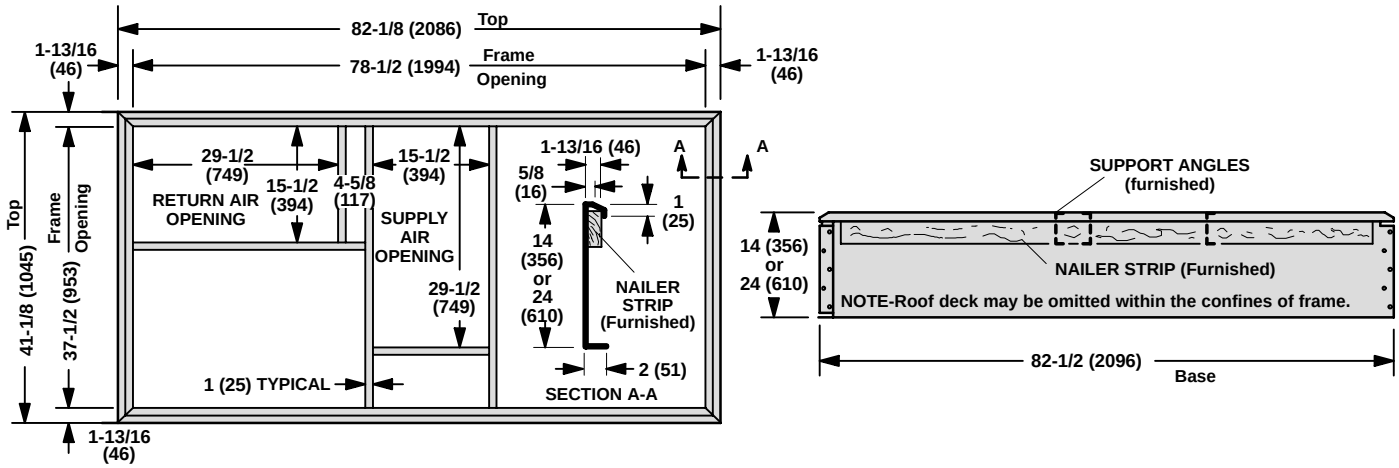
END VIEW
(Economizer/Outdoor Air Dampers)



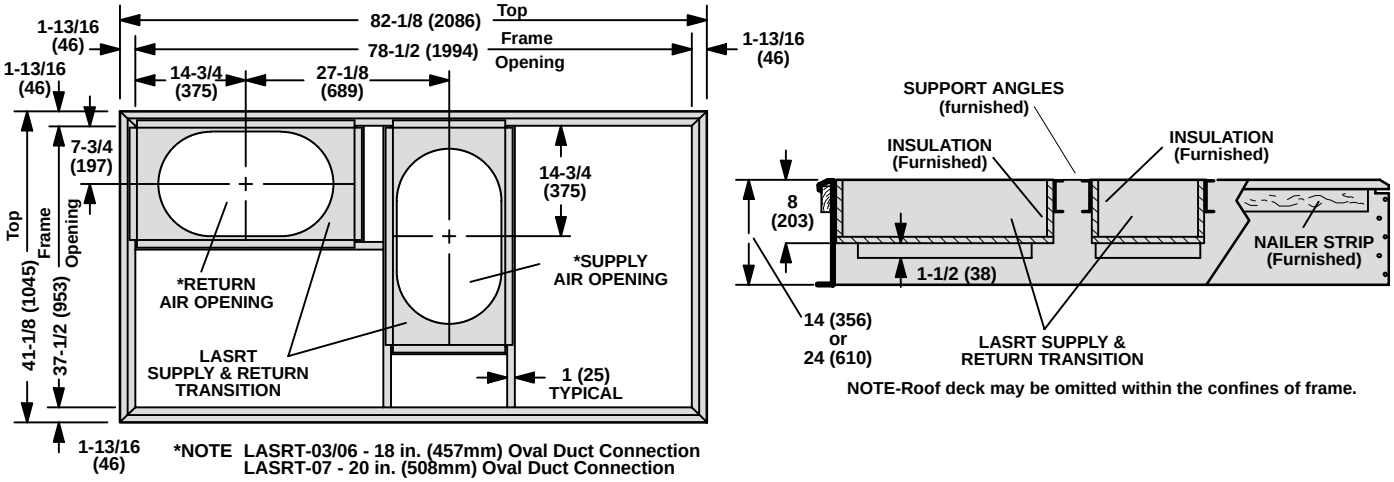
END VIEW
(Power Exhaust)

ACCESSORY DIMENSIONS - INCHES (MM)

LARMF-03/07 ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



LARMF-03/07 ROOF MOUNTING FRAME WITH LASRT SUPPLY AND RETURN AIR TRANSITIONS FOR FD AND RTD CEILING DIFFUSERS



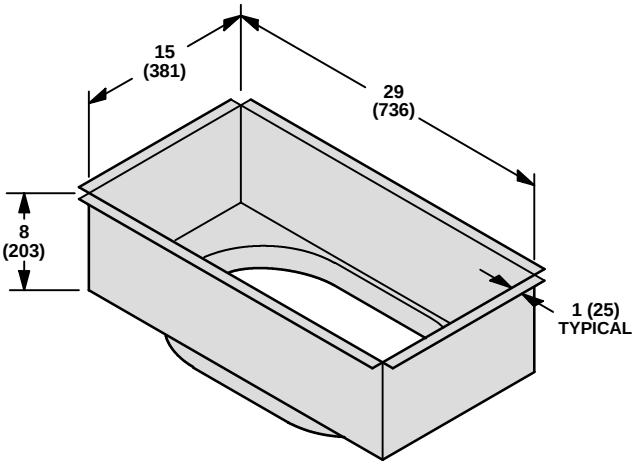
ROOF MOUNTING FRAME SPECIFICATIONS

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

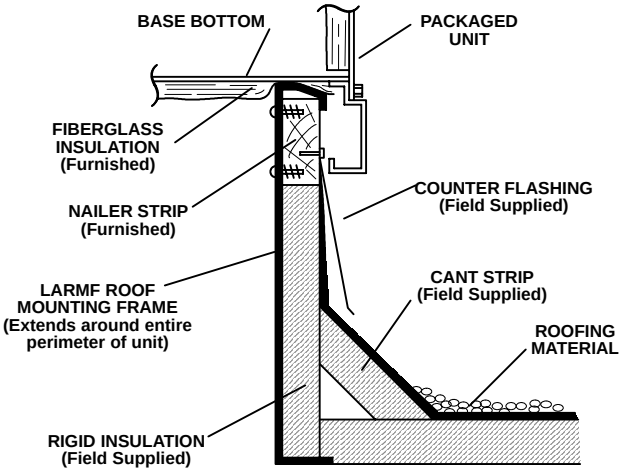
Roof Mounting Frame	LARMF03/07-14	LARMF03/07-24
*Moment of inertia (I) (in.^{4}) (cm^4)	39 (1634)	160 (6639)
*Section modulus $\frac{I}{C}$ (in.^{3}) (cm^3)	5.5 (90)	13.1 (512)
Frame weight. (lb/ft) (kg/m) of length	5.5 (8.2)	8.5 (12.7)
Design strength (psi) (kPa)	20,000 (137,900)	

*Includes both sides of frame.

LASRT CEILING SUPPLY AND RETURN AIR TRANSITION



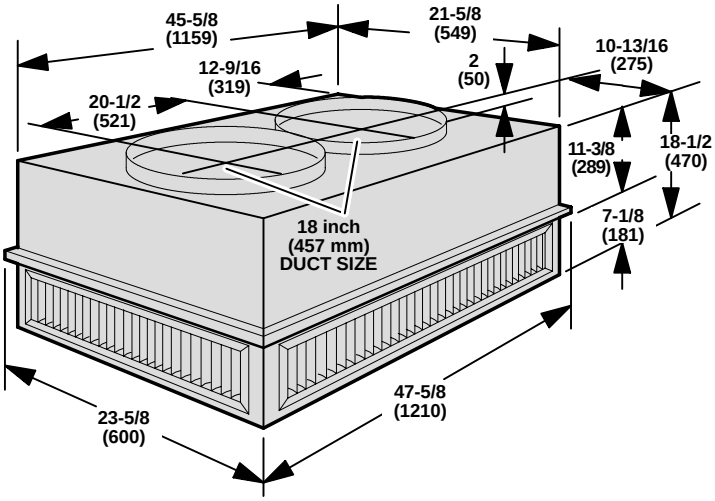
TYPICAL FLASHING DETAIL FOR LARMF-03/07-14 ROOF MOUNTING FRAME



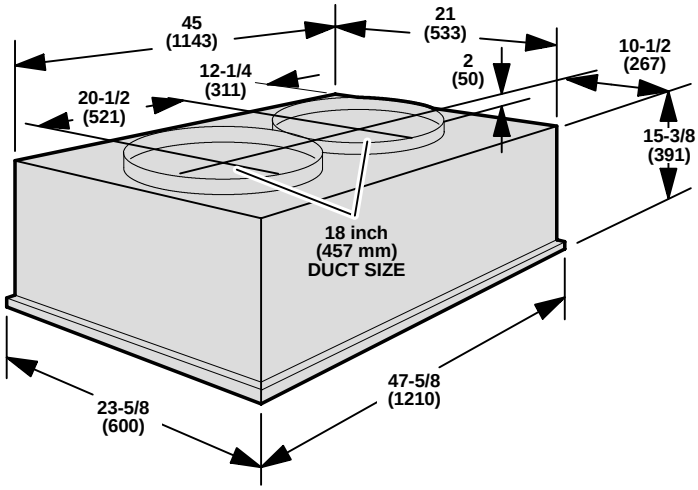
ACCESSORY DIMENSIONS - INCHES (MM)

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

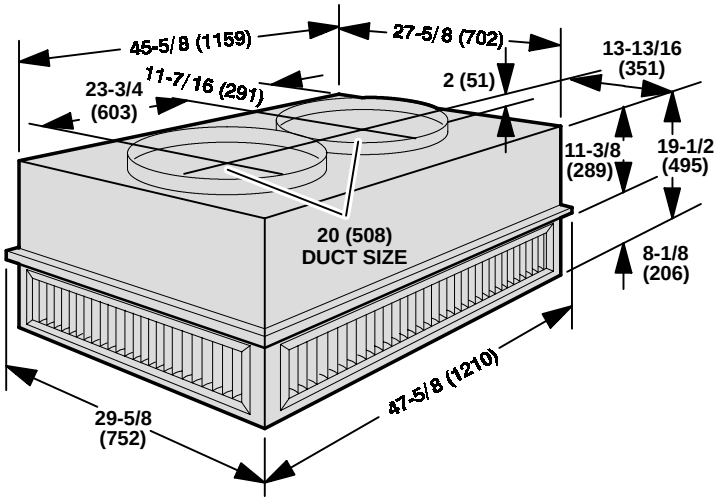
RTD9-65 STEP-DOWN CEILING DIFFUSER



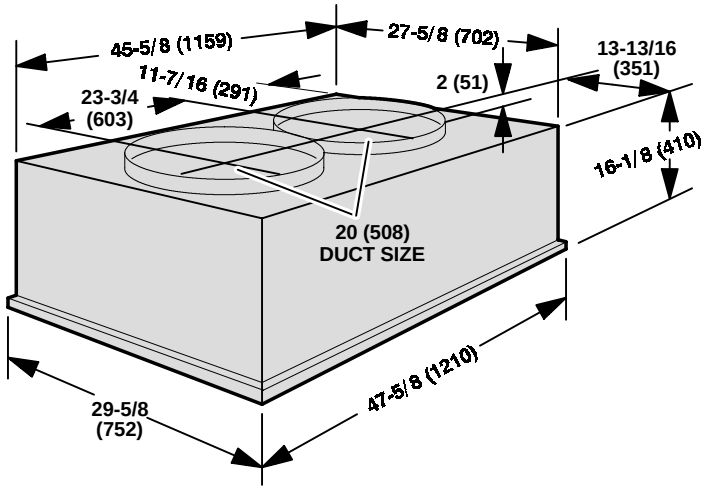
FD9-65 FLUSH CEILING DIFFUSER



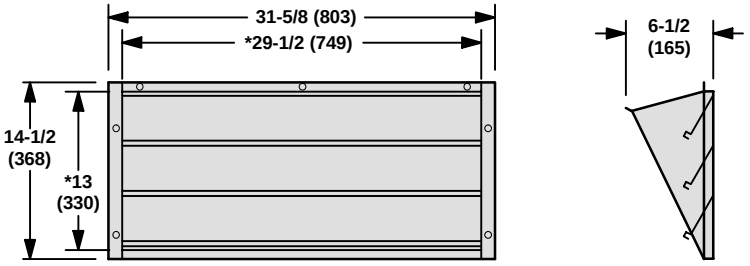
RTD11-95 STEP-DOWN CEILING DIFFUSER



FD11-95 FLUSH CEILING DIFFUSER



LAGEDH03/15 HORIZONTAL GRAVITY EXHAUST DAMPERS
(Field Installed in Return Air Duct)



FRONT VIEW **SIDE VIEW**

*NOTE - Opening size required in return air duct.