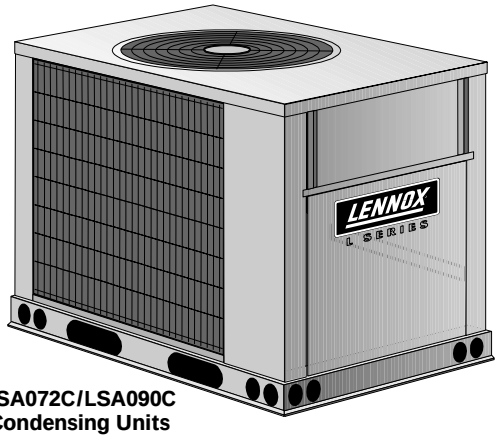
072, 090, 120, 180 AND 240 MODELS
"C" SERIES CONDENSING UNITS
"P" SERIES HEAT PUMPS

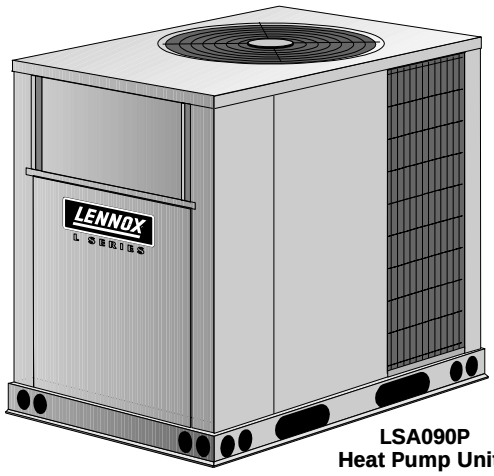
LSA

Condensing Units – 21 Thru 70 kW (6 Thru 20 Ton)
Heat Pumps – 26 and 35 kW (7.5 and 10 Ton)

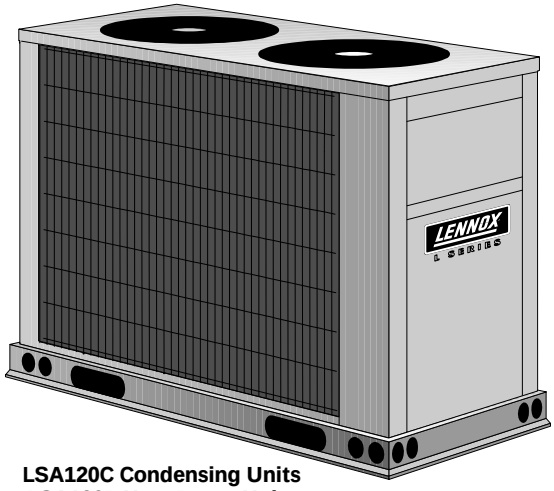
Bulletin #490075
April 1997



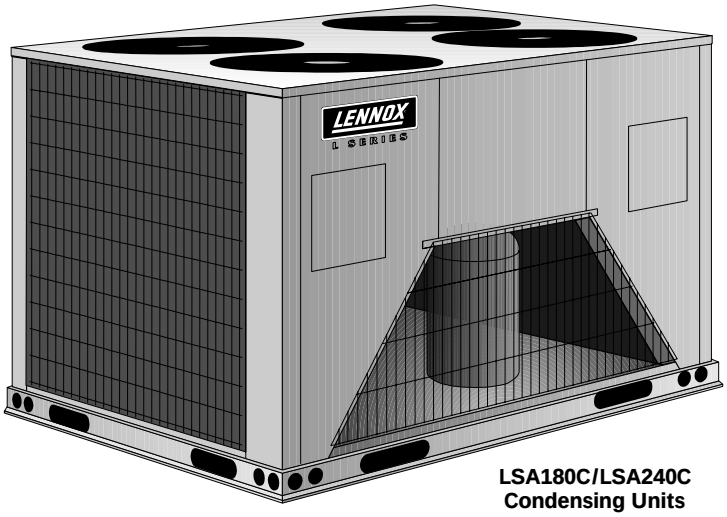
LSA072C/LSA090C Condensing Units



LSA090P Heat Pump Units

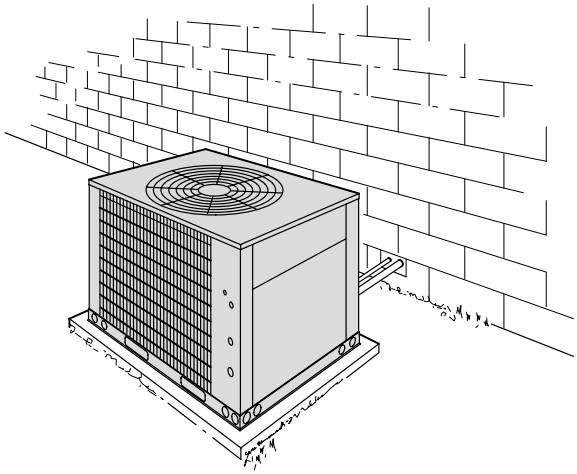


LSA120C Condensing Units
LSA120P Heat Pump Units

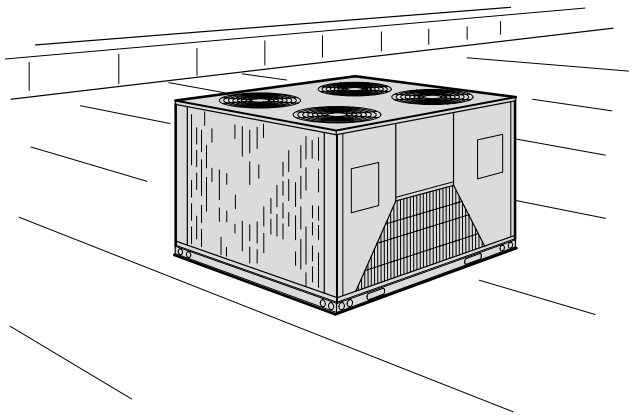


LSA180C/LSA240C Condensing Units

Typical Applications



Unit on a slab at grade level



Rooftop Installation

NOTE — Due to Lennox' ongoing committent to quality, Specifications, Ratings and Dimensions subject to change without notice.

FEATURES

Applications
- Condensing units available in 21, 26, 35, 53 and 70 kW (6, 7.5, 10, 15 and 20 ton) nominal sizes.
- Heat pump units available in 26 and 35 kW (7.5 and 10 ton) nominal sizes.
- Designed for applications with remotely located blower-coil unit (condensing and heat pump units) or furnace with add-on evaporator coil (condensing units only).
- See rating tables for efficiencies and capacities.
- For blower coil unit or evaporator unit data, see bulletins indexed in tab section Coils-Blower Coil Units.
- All units shipped factory assembled, piped and wired.
- Test operated at factory to ensure dependable operation.

Completely Tested
- All units tested in Lennox Research Laboratory environmental test room which meet American Society of Heating, Refrigeration and Air–Conditioning Engineers (ASHRAE) Standard 37 requirements.
- LSA072C, LSA090C, LSA120C condensing units rated in accordance with Air Conditioning and Refrigeration Institute (ARI) Standard 210/240-94 while operating at rated voltages and air volumes.
- LSA180C, LSA240C condensing units rated in accordance with Air Conditioning and Refrigeration Institute (ARI) Standard 365-87 while operating at rated voltages and air volumes.
- LSA090P, LSA120P heat pump units rated in accordance with Air Conditioning and Refrigeration Institute (ARI) Standard 210/240-94 while operating at rated voltages and air volumes.
- Sound tested in Lennox reverberant sound test room in accordance with test conditions included in Air Conditioning and Refrigeration Institute (ARI) Standard 270-95.
- Units and components within are bonded for grounding to meet safety standards for servicing required by Underwriter's Laboratories (U.L.) and the International Electrotechnical Commission (IEC).

Compressors
- LSA072C features single scroll compressor.

  Scroll compressor features:
  - Compressor features high efficiency with uniform suction flow, constant discharge flow and high volumetric efficiency and quiet operation.
  - Scroll compressor technology eliminates need for start capacitor and start relay.
  - Compressor consists of two involute spiral scrolls matched together to generate a series of crescent shaped gas pockets between them.
  - During compression, one scroll remains stationary while the other scroll orbits around it.
  - Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates.
  - As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced.
  - When pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls.
  - During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle.
  - Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency.
  - Scroll compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to to be worked toward the center and discharged.
  - Low gas pulses during compression reduces operational sound levels.
  - Compressor motor is internally protected from excessive current and temperature.
  - Compressor is installed in the unit on resilient rubber mounts for vibration free operation.

Compressors – continued
- LSA090C, LSA120C, LSA090P and LSA120P units have single reciprocating compressor.
- LSA180C and LSA240C units have two reciprocating compressors.

  Reciprocating compressor features:
  - Hermetically sealed steel shell.
  - Cast iron compressor housing for long life.
  - Internal overload protection assures protection from excessive current and temperature. Automatic reset.
  - Aluminum pistons and connecting rods.
  - Ringed valves.
  - Stainless steel discharge valves.
  - Large internal muffler for quiet operation.
  - Patented internal spring mounting for vibration free operation.
  - Compressor installed in unit on resilient rubber mounts for quiet, vibration free operation.

Crankcase Heater (All Models)
- Assures proper compressor lubrication at all times.

Cabinet
- Heavy gauge steel cabinet with re–painted panels provides superior rust and corrosion protection.
- Removeable panels allow access for unit servicing. See dimension drawings.
- Heavy duty steel base channels raise the unit off of mounting surface away from damaging moisture.
- Unit lifting holes and forklift slots furnished in base rails. See dimension drawings.

Control Box
- Control box located in separate compartment in unit cabinet (072, 090 and 120 models).
- Hinged panel with quarter turn fastener for easy access.
- Slide out control box allows easy access to controls (180 and 240 models).
- All controls are pre-wired at the factory.

Copper Tube/Enhanced Fin Coil(s)
- LSA072C equipped with single "L" shaped coil.
- LSA090C, LSA090P equipped with single "U" shaped coil.
- LSA120, LSA120P equipped with two slab coils.
- LSA180C, LSA240C equipped with four slab coils.
- Lennox designed and fabricated coils constructed of precisely spaced ripple-edge aluminum fins machine fitted to seamless copper tubes.
- Lanced fins provide maximum exposure of fin surface to air stream resulting in excellent heat transfer.
- Fins equipped with collars that grip tubing for maximum contact area.
- Flared shoulder tubing connections and silver soldering provide tight, leakproof joints.
- Long life copper tubing is corrosion-resistant and easy to field service.
- Thoroughly factory tested under high pressure to insure leakproof construction.
- Completely accessible for cleaning.

Coil Guard
- Corrosion resistant polyvinyl chloride (PVC) coated steel wire guard(s) furnished as standard.

FEATURES – continued

Outdoor Fan(s)
- LSA072C, LSA090C, LSA090P units have one outdoor fan.
- LSA120C, LSA120P units have two outdoor fans.
- LSA180C, LSA240C units have four outdoor fans.
- Direct drive fan(s) moves large volumes of air uniformly through entire coil(s) for high refrigerant cooling capacity.
- Upward discharge of air reduces operating sound levels and prevents damage to lawns, shrubs and walkways.
- Fan motors are totally enclosed, inherently protected and equipped with a rain shield.
- Fan service access is accomplished by removal of fan guards.

Minimum Run Time Control (Condensing Units)
- Prevents compressor short cycling and allows time for suction and discharge pressures to equalize and assures oil return to compressor.
- 5 minute minimum run time regardless of cooling demand.

Defrost Control/Timed–Off Control (Heat Pump Units)
- Solid-state time/temperature defrost control is furnished as standard equipment.
- Control initiates a defrost cycle every 30, 60 or 90 minutes of compressor "on" time at outdoor temperatures below 2°C (35° F) (factory setting 60 minutes).
- Maximum defrost cycle 14 minutes.
- Defrost thermostat mounted on liquid line determines when defrost cycle is required.
- Pressure switch mounted on discharge line determines when defrost cycle is terminated.
- Timed off function prevents compressor short cycling.
- Provides 5 minute delay between compressor shutoff and start–up.
- Allows suction and discharge pressure to equalize, permitting compressor to start in unloaded condition.
- Automatic reset.
- Connections for ambient compensating thermistor and service light thermostat.

Reversing Valve (Heat Pump Units)
- Factory installed 4–way reversing valve provides rapid change in refrigerant flow direction resulting in quick changeover from cooling to heating and vice–versa.
- Valve operates on pressure differential between outdoor unit and indoor unit.

Refrigerant Lines and Service Valves
- Sweat connections.
- Fully serviceable brass service valves prevent corrosion and provide complete service access to refrigerant system. Suction valve can be fully shut off, while liquid valve can be front seated to manage refrigerant charge while servicing system.
- Thermometer well is provided for checking refrigerant charge. Refrigerant lines and field wiring inlets are located in one central area of the unit cabinet.

Hi-Capacity Drier
- Furnished for field installation. Drier traps any moisture or dirt that could contaminate the refrigerant system.

High Pressure Switch
- Shuts off unit if abnormal operating conditions cause discharge pressure to rise above setting.
- Protects the compressor from excessive condensing pressure.
- Manual reset.

Loss of Charge Switch
- Shuts off unit if suction pressure falls below setting.
- Provides loss of charge and freeze-up protection.
- Automatic reset.

Low Ambient Operation
- LSA072C, LSA090C and LSA090P units will operate satisfactorily down to 2°C (35°F) outdoor air temperature without any additional controls.
- LSA120C, LSA120P, LSA180C and LSA240C units will operate satisfactorily down to –18°C (0°F) outdoor air temperature without any additional controls.

OPTIONS (Must Be Ordered Extra)

Thermostat (Optional)
- Thermostat is not furnished with unit and must be ordered extra.
- See Lennox Price Book.

Hail Guard Protection (Optional)
- Heavy duty field installed coil guard protects coils from damage.
- LSA072C uses **(86K90)**.
- LSA090C uses **(83K36)**.
- LSA090P use **(83K37)**.
- LSA120C, LSA120P, LSA180C, LSA240C use **(79K91)**.

Line Monitors (Field Installed)
- Protects units from phase reversal, single phasing, low voltage and voltage unbalance **(25J98)**.

Hot Gas Bypass (Factory or Field Installed)
- Available for LSA072C, LSA090C, LSA120C only.
- LSA072C and LSA090C may use hot gas by–pass for low ambient operation down to –18°C (0°F).
- Factory or field installed kit **(79K90)** contains hot gas bypass valve and superheat valve for reduced capacity control of condensing units.

Corrosion Protection (Factory Installed)
- Phenolic epoxy coating applied to condenser coils and base section.

Disconnect Switch (Factory Installed)
- Accessible from outside of unit.
- Spring loaded weatherproof cover.

SPECIFICATIONS — CONDENSING UNITS

Model Number			LSA072C	LSA090C	LSA120C	LSA180C	LSA240C
Nominal Size – kW (Tons)			21 (6)	26 (7.5)	35 (10)	53 (15)	70 (20)
Condenser Coil	Net face area — m^2 (sq. ft.)	Outer coil	1.20 (12.92)	1.52 (16.35)	2.73 (29.36) total	5.45 (58.68) total	
		Inner coil	1.17 (12.59)	1.46 (15.70)	– – – –		
	Tube diameter — mm (in.) & number of rows		9.5 (3/8) – 2			9.5 (3/8) – 1	9.5 (3/8) – 2
	Fins per m (inch)		787 (20)		630 (15)	787 (20)	630 (15)
Condenser Fan(s)	Diameter — mm (in.) and number of blades		(1) 610 (24) – 4		(2) 610 (24) – 3	(4) 610 (24) – 3	
	Motor output — W (hp)		(1) 373 (1/2)		(2) 249 (1/3)	(4) 249 (1/3)	
	m^3/s (cfm) total air volume		2.15 (4500)	2.30 (4800)	3.85 (8200)	7.55 (16 000)	
	Rev/min		1060		1100	1075	
	Motor input – W		620	610	740 total	1400 total	
Refrigerant charge			dry air				
Liquid line (outside diameter) – mm (in.) connection (sweat)			15.9 (5/8)			(2) 15.9 (5/8)	
Suction line (outside diameter) – mm (in.) connection (sweat)			28.6 (1–1/8)	34.9 (1–3/8)		(2) 34.9 (1–3/8)	
Shipping weight — kg (lbs.) 1 package			161 (354)	193 (427)	251 (555)	439 (968)	497 (1096)

ELECTRICAL DATA — CONDENSING UNITS

Model Number		LSA072C	LSA090C	LSA120C
Line voltage data — 50 hz 3 phase with neutral		380/420V	380/420V	380/420V
Voltage range (minimum – maximum)		342 – 462V	360 – 440V	
Compressors (1)	Rated load amps	9	10.4	13.9
	Locked rotor amps	70	79	98
Condenser Coil Fan Motor(s) (1 phase)	Full load amps (total)	1.5	1.5	1.3 (2.6)
	Locked rotor amps (total)	3	3	2.4 (4.8)

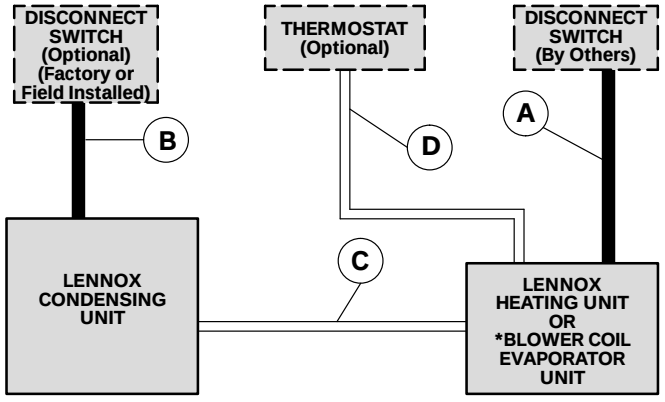
NOTE – Refer to local electrical codes to determine wire, fuse and disconnect size requirements.

ELECTRICAL DATA — CONDENSING UNITS

Model Number		LSA180C	LSA240C
Line voltage data — 50 hz 3 phase with neutral		380/420V	380/420V
Voltage range (minimum – maximum)		360 – 440V	
Compressors (2)	Rated load amps – each (total)	10.4 (20.8)	13.9 (27.8)
	Locked rotor amps – each (total)	79 (158)	98 (196)
Condenser Coil Fan Motor(s) (1 phase)	Full load amps – each (total)	1.3 (5.2)	1.3 (5.2)
	Locked rotor amps – each (total)	2.4 (9.6)	2.4 (9.6)

NOTE – Refer to local electrical codes to determine wire, fuse and disconnect size requirements.

FIELD WIRING — Basic Unit — CONDENSING UNITS



A — Three Phase With Neutral (not furnished)

B — Three Phase With Neutral (not furnished) — See Electrical Data

C — Two Wire 24V (not furnished)

D — Four Wire 24V (not furnished)

NOTE – Field wiring not furnished by Lennox.

All wiring must conform to local electrical codes.

*CB17/CBH17 applications without electric heat require a separate 70VA (minimum rating) transformer.

SPECIFICATIONS — HEAT PUMPS

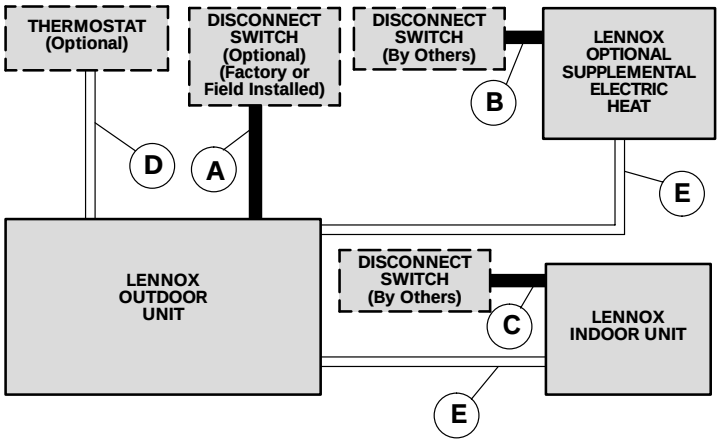
Model Number			LSA090P	LSA120P
Nominal Size – kW (Tons)			26 (7.5)	35 (10)
Outdoor Coil	Net face area — m^2 (sq. ft.)	Outer coil	2.03 (21.80)	2.73 (29.34)
		Inner coil	1.95 (20.94)	– – – –
	Tube diameter – mm (in.) & number of rows		9.5 (3/8) – 2	
	Fins per m (inch)		787 (20)	
Outdoor Coil Fan(s)	Diameter — mm (in.) & number of blades		(1) 610 (24) – 4	(2) 610 (24) – 3
	Motor output — W (hp)		(1) 373 (1/2)	(2) 249 (1/3)
	m^3/s (cfm) total air volume		2.50 (5300)	3.90 (8200)
	Rev/min		1075	1100
	Motor input – W		600	740
Refrigerant charge			dry air	
Liquid line (outside diameter) — mm (in.) connection (sweat)			15.9 (5/8)	
Vapor line (outside diameter) — mm (in.) connection (sweat)			34.9 (1–3/8)	
Shipping weight — kg (lbs.) 1 package			222 (490)	274 (604)

ELECTRICAL DATA — HEAT PUMPS

Model No.		LSA090P	LSA120P
Line voltage data — 50 hz 3 phase with neutral		380/420V	380/420V
Voltage range (minimum – maximum)		360 – 440V	
Compressor (1)	Rated load amps	10.4	13.9
	Locked rotor amps	79	98
Outdoor Coil Fan Motor(s) (1 phase)	Full load amps (total)	1.5	1.3 (2.6)
	Locked rotor amps (total)	3	2.4 (4.8)

NOTE – Refer to local electrical codes to determine wire, fuse and disconnect size requirements.

FIELD WIRING — Basic Unit — HEAT PUMPS



A – Three Phase with neutral (see Electrical Data)

B – Three Phase with neutral (size to heater capacity)

C – Three Phase with neutral (size to indoor coil blower motor)

D – Seven Wire 24V – with Electric Heat

E – Four Wire 24V

– Field Wiring Not Furnished –

All wiring must conform to local electrical codes.

*CB17/CBH17 applications without electric heat require a separate 70VA (minimum rating) transformer.

RATINGS — CONDENSING UNITS

Condensing Unit Model Number (*Sound Rating Number-db)	★Cooling Ratings								Evaporator Unit			**Expansion Valve
	Total Cooling Capacity		†Net Cooling Capacity		Total Power Input kW	Coefficient of Performance (Output/Input)	Energy Efficiency Ratio (Btuh/Watt)	Integrated Part Load Value	Up-Flow	Down-Flow	Horizontal	
	kW	Btuh	kW	Btuh					Evaporator Coil			
LSA072C (86)	17.5	59 600	16.6	56 600	6.16	2.7	9.2	– – – –	C23–51/65(FC)	– – – –	– – – –	LB–85663K (**26K35**)
	17.1	58 400	16.2	55 400	6.14	2.6	9.0	– – – –	– – – –	CR26–65(N)(W)	– – – –	
	18.1	61 700	17.2	58 700	6.19	2.8	9.5	– – – –	– – – –	– – – –	CH23–68	
	kW	**Btuh**	**kW**	**Btuh**	**kW**	**C.O.P.**	**EER**	**IPLV**	**Blower Coil Units**			**Valve**
	16.9	57 700	15.5	53 000	6.61	2.3	8.0	– – – –	CB29M–65 (Multi–position)			●Factory Installed
	19.1	65 100	18.5	63 100	5.97	3.1	10.6	– – – –	CB17–95V	– – – –	CBH17–95V	
LSA090C (86)	**kW**	**Btuh**	**kW**	**Btuh**	**kW**	**C.O.P.**	**EER**	**IPLV**	**Blower Coil Units**			**Valve**
	24.4	83 200	23.6	80 400	8.37	2.8	9.6	– – – –	CB17–95V	– – – –	CBH17–95V	●Factory Installed
	24.8	84 600	24.0	82 000	8.40	2.9	9.8	– – – –	CB17–135V	– – – –	CBH17–135V	
LSA120C (90)	**kW**	**Btuh**	**kW**	**Btuh**	**kW**	**C.O.P.**	**EER**	**IPLV**	**Blower Coil Units**			**Valve**
	31.6	107 900	30.3	103 300	11.22	2.7	9.2	– – – –	CB17–95V	– – – –	CBH17–95V	●Factory Installed
	32.8	111 800	31.6	107 900	11.16	2.8	9.7	– – – –	CB17–135V	– – – –	CBH17–135V	
[1]LSA180C	**kW**	**Btuh**	**kW**	**Btuh**	**kW**	**C.O.P.**	**EER**	**IPLV**	**Blower Coil Units**			**Valve**
	47.3	161 500	45.8	156 300	16.04	2.9	9.7	10.5	CB17–185V	– – – –	CBH17–185V	●Factory Installed
[1]LSA240C	**kW**	**Btuh**	**kW**	**Btuh**	**kW**	**C.O.P.**	**EER**	**IPLV**	**Blower Coil Units**			**Valve**
	65.3	223 000	62.9	214 800	22.9	2.8	9.7	10.3	CB17–275V	– – – –	CBH17–275V	●Factory Installed

*Sound rating number rated at test conditions for Air-Conditioning and Refrigeration Institute (ARI) Standard 270.
★The rating test conditions are those included in Air-Conditioning and Refrigeration Institute (ARI) Standard 210/240 or [1]365 while operating at rated voltage and air volumes;
Cooling Ratings — 35°C (95°F) outdoor air temperature , 26.7°C (80°F) dry bulb and 19.4°C (67°F) wet bulb entering evaporator air (◇minimum external duct static pressure) with 7.5 m (25 feet) of connecting refrigerant lines.
●Furnished as standard with coil.
** Kit is required and must be ordered extra, unless shown as factory installed.
†Net Cooling Capacity = Gross Cooling Capacity minus heat added by indoor blower motor (365W per 1000 cfm (0.47 m^3/s or 3.413 Btu/W on blower coils).

RATINGS — HEAT PUMPS

Outdoor Unit Model Number (*Sound Rating Number –db)	★Cooling and Heating Ratings															Lennox Indoor Unit	Check and Expansion Kit Required
	Total Cooling Capacity		†Net Cooling Capacity		High Temperature Heating Capacity		Low Temperature Heating Capacity		Cooling			High Temperature Heating		Low Temperature Heating			
									†Total Power Input kW	Coefficient of Performance (Output/Input)	Energy Efficiency Ratio (Btuh/Watt)	†Total Power Input kW	Coefficient of Performance (Output/Input)	†Total Power Input kW	Coefficient of Performance (Output/Input)		
	kW	Btuh	kW	Btuh	kW	Btuh	kW	Btuh									
LSA090P (92)	24.2	82 600	23.4	80 000	21.9	74 700	12.7	43 500	8.05	2.9	9.9	6.42	3.4	4.99	2.6	CB17–95V CBH17–95V	LB–51486CA [1](**53F21**)
LSA120P (90)	32.1	109 500	30.7	104 900	28.8	98 400	14.9	51 000	11.07	2.8	9.5	9.06	3.2	7.71	1.9	CB17–135V CBH17–135V	

*Sound rating number rated at test conditions for Air-Conditioning and Refrigeration Institute (ARI) Standard 270.
★The rating test conditions are those included in Air-Conditioning and Refrigeration Institute (ARI) Standard 210/240 while operating at rated voltage and air volumes;
Cooling Ratings — 35°C (95°F) outdoor air temperature, 26.7°C (80°F) dry bulb and 19.4°C (67°F) wet bulb entering indoor coil air.
High Temperature Heating Ratings — 8.3°C (47°F) dry bulb, 6.1°C (43°F) wet bulb outdoor air temperature and 21.1°C (70°F) entering indoor coil air.
Low Temperature Heating Ratings — minus 8.3°C (17°F) dry bulb, minus 9.4°C (15°F) wet bulb outdoor air temperature and 21.1°C (70°F) entering indoor coil air.
[1]Kit contains 2 valves.
†Net Cooling Capacity = Gross Cooling Capacity minus heat added by indoor blower motor (365W per 1000 cfm (0.47 m^3/s or 3.413 Btu/W on blower coils).

GUIDE SPECIFICATIONS — CONDENSING UNITS

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

General — *Furnish and install an air cooled condensing unit. The unit shall be shipped completely factory assembled, piped and wired internally ready for field connections. In addition, manufacturer shall test operate unit at the factory before shipment. The condensing unit shall be a standard product of a firm regularly engaged in the manufacture of heating-cooling equipment.*

The installed weight shall not be more than . . . . . .kg (lbs.). Entire unit shall have a width of not more than . . . . . mm (inches), a depth of not more than . . . . . .mm (inches) and an overall height of not more than . . . . . mm (inches).

Cooling Capacity — *The total cooling capacity shall be . . . . . .kW (Btuh) at . . . . . °C (°F) evaporating temperature and outdoor air temperature of . . . . . °C (°F). The compressor power input shall not exceed . . . . . kw at the above conditions. LSA072C and LSA090C units will operate satisfactorily down to 2° C (35° F) outdoor air temperature without any additional controls. LSA120C, LSA180C and LSA240C units will operate satisfactorily down to –18° C (0° F) outdoor air temperature without any additional controls.*

Compressor — *LSA072C shall have single speed scroll compressor. LSA090C, LSA120C shall have single speed reciprocating compressor. LSA180C, LSA240C shall have two single speed reciprocating compressors. Compressors shall be resiliently mounted, suction cooled, overload protected, and have internal excessive current and temperature protection. All compressors shall have crankcase heater.*

Refrigerant System — *Shall include fully serviceable liquid and suction line service valves, gauge ports, hi-capacity drier (field installed), thermometer well, high pressure switch, loss of charge switch and timed-off control. Control options available shall include thermostat.*

Condenser Coil(s) — *Coil(s) shall be non-ferrous construction with aluminum enhanced fins mechanically bonded to durable rifled copper tubes. Coil(s) shall be pressure leak tested. Coil face area shall be not less than . . . . . m^2 (sq. ft.). Coil(s) shall be protected with steel guard(s).*

Cabinet — *Shall be constructed of galvanized steel which has been through a metal wash preparation and have a pre–painted finish. Openings shall be provided for refrigerant lines and power connection entry.*

Air Mover — *Shall be direct drive propeller type fan(s). Motor(s) shall have inherent protection devices and shall be protected from moisture. Motor(s) shall be . . . . . W (hp) with not more than . . . . . watts input. Fan(s) shall be protected with steel guard(s).*

OPTIONS

Corrosion Protection – *Furnish and factory apply phenolic epoxy coating to condenser coils and base section.*

Disconnect Switch – *Furnish and factory install unit disconnect switch. Shall have spring loaded weatherproof cover.*

Hail Guard Protection – *Furnish and field install heavy duty coil guard to protect coils.*

GUIDE SPECIFICATIONS — HEAT PUMPS

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

General — *Furnish and install an air cooled heat pump outdoor unit. The unit shall be shipped completely factory assembled, piped and wired internally ready for field connections. In addition, manufacturer shall test operate unit at the factory before shipment. The outdoor unit shall be a standard product of a firm regularly engaged in the manufacture of heating-cooling equipment.*

The installed weight shall not be more than . . . . . kg (lbs.). Entire unit shall have a width of not more than . . . . . mm (inches), a depth of not more than . . . . . mm (inches) and an overall height of not more than . . . . . mm (inches).

Cooling Capacity — *The total cooling capacity shall be . . . . . .kW(Btuh) at . . . . . °C (°F) evaporating temperature and outdoor air temperature of . . . . . °C (°F). The compressor power input shall not exceed . . . . . kW at the above conditions. LSA090P units will operate satisfactorily down to 2° C (35° F) outdoor air temperature without any additional controls. LSA120P units will operate satisfactorily down to –18° C (0° F) outdoor air temperature without any additional controls.*

Heating Capacity — *The total heating capacity with indoor matching indoor unit shall be . . . . . .kW (Btuh) with an indoor coil air volume of . . . . . m^3/s (cfm), an indoor coil entering temperatue of . . . . . °C (°F) and . . . . . °C (°F) outdoor air temperature. The compressor watts input shall not be more than . . . . . watts at the above conditions.*

Outdoor Coil(s) — *Coil(s) shall be non-ferrous construction with aluminum enhanced fins mechanically bonded to rifled copper tubes. Coil(s) shall be pressure leak tested. Coil face area shall be not less than . . . . . m^2 (sq. ft.). Coil(s) shall be protected with steel guard(s).*

Compressor — *LSA090P, LSA120P shall have single speed reciprocating compressor. Compressor shall be resiliently mounted, suction cooled, overload protected, and have internal excessive current and temperature protection. Compressor shall have crankcase heater.*

Refrigerant System — *Shall include fully serviceable liquid and vapor line service valves, gauge ports, hi-capacity driers, thermometer well, high pressure switch, loss of charge pressure switch, suction line accumulator, expansion valve, reversing valve and defrost/timed–off control. Control options available shall include thermostat.*

Cabinet — *Shall be constructed of galvanized steel which has been through a metal wash preparation and have a pre–painted finish. Openings shall be provided for refrigerant lines and power connection entry.*

Air Mover — *Shall be direct drive blade type fan(s). Motor(s) shall have inherent protection devices and shall be protected from moisture. Motor(s) shall be . . . . . W (hp) with not more than . . . . . watts input. Fan(s) shall be protected with steel guard(s).*

OPTIONS

Corrosion Protection – *Furnish and factory apply phenolic epoxy coating to outdoor coils and base section.*

Disconnect Switch – *Furnish and factory install unit disconnect switch. Shall have spring loaded weatherproof cover.*

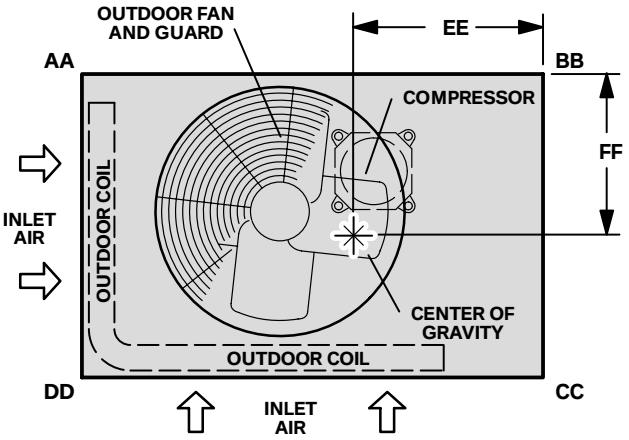
Hail Guard Protection – *Furnish and field install heavy duty coil guard to protect coils.*

CORNER WEIGHT — kg (lbs.)

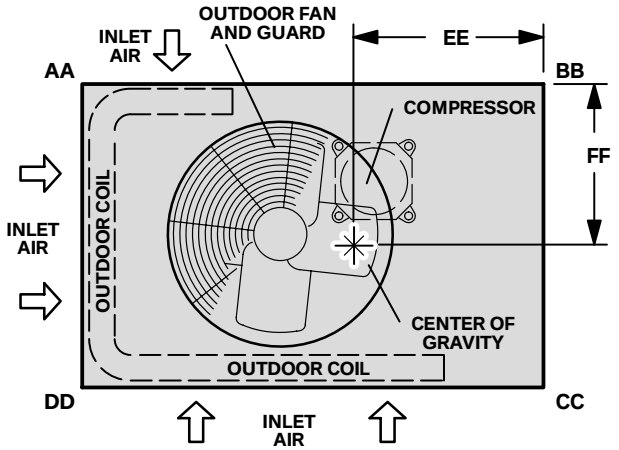
Model Number	AA		BB		CC		DD	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
LSA072C	36	79	42	93	38	83	32	70
LSA090C	45	99	55	121	44	98	36	80
LSA090P	46	101	54	119	60	133	51	113

CENTER OF GRAVITY — mm (in.)

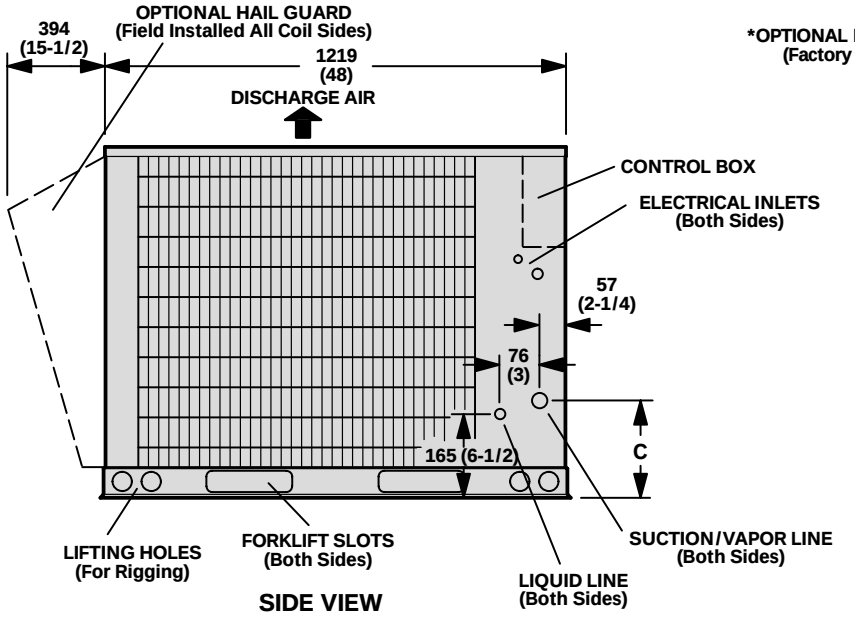
Model Number	EE		FF	
	mm	inch	mm	inch
LSA072C	575	22-5/8	422	16-5/8
LSA090C	562	22-1/8	400	15-3/4
LSA090P	575	22-5/8	473	18-5/8



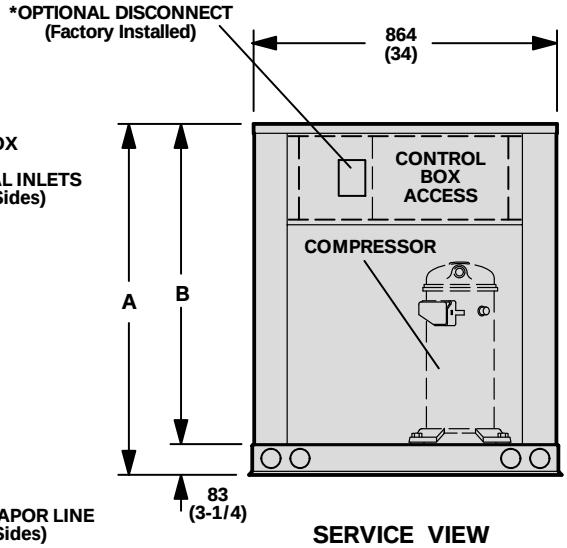
TOP VIEW
(LSA072C)



TOP VIEW
(LSA090C and LSA090P)



SIDE VIEW



SERVICE VIEW

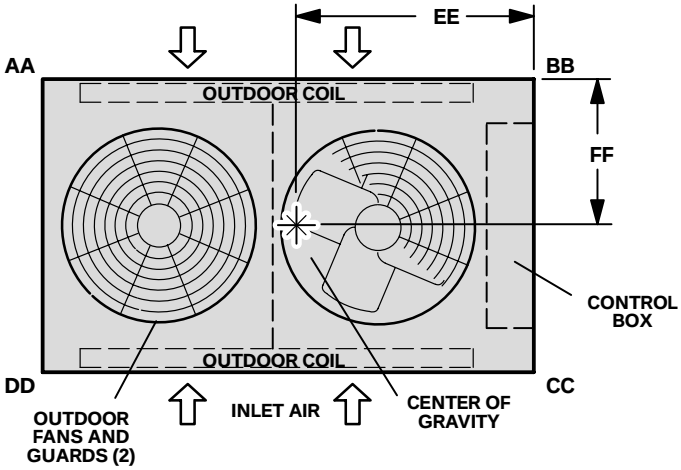
Model Number	A		B		C	
	mm	in.	mm	in.	mm	in.
LSA072C	921	36-1/4	838	33	235	9-1/4
LSA090C	921	36-1/4	838	33	368	14-1/2
LSA090P	1181	46-1/2	1099	43-1/4	286	11-1/4

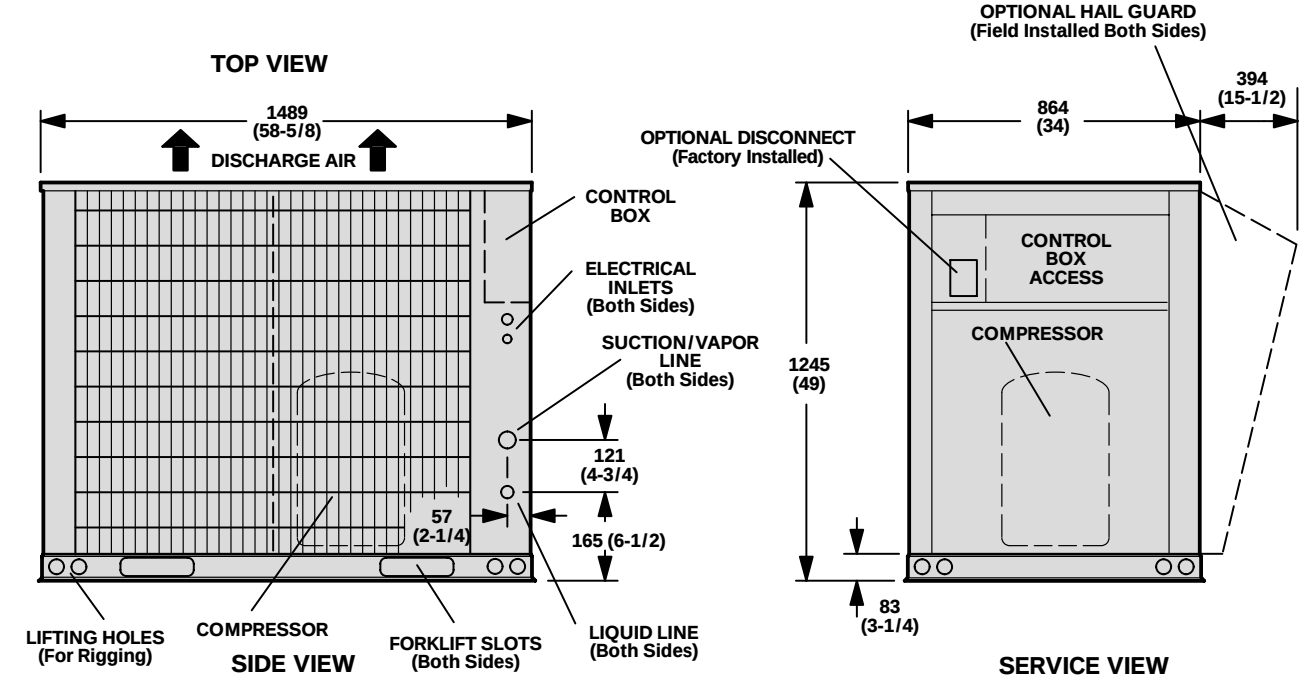
CORNER WEIGHT — kg (lbs.)

Model Number	AA		BB		CC		DD	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
LSA120C	54	119	64	141	64	141	54	119
LSA120P	56	124	67	148	67	148	56	124

CENTER OF GRAVITY — mm (in.)

Model Number	EE		FF	
	mm	inch	mm	inch
LSA120C	699	27-1/2	162	16-3/8
LSA120P	699	27-1/2	162	16-3/8



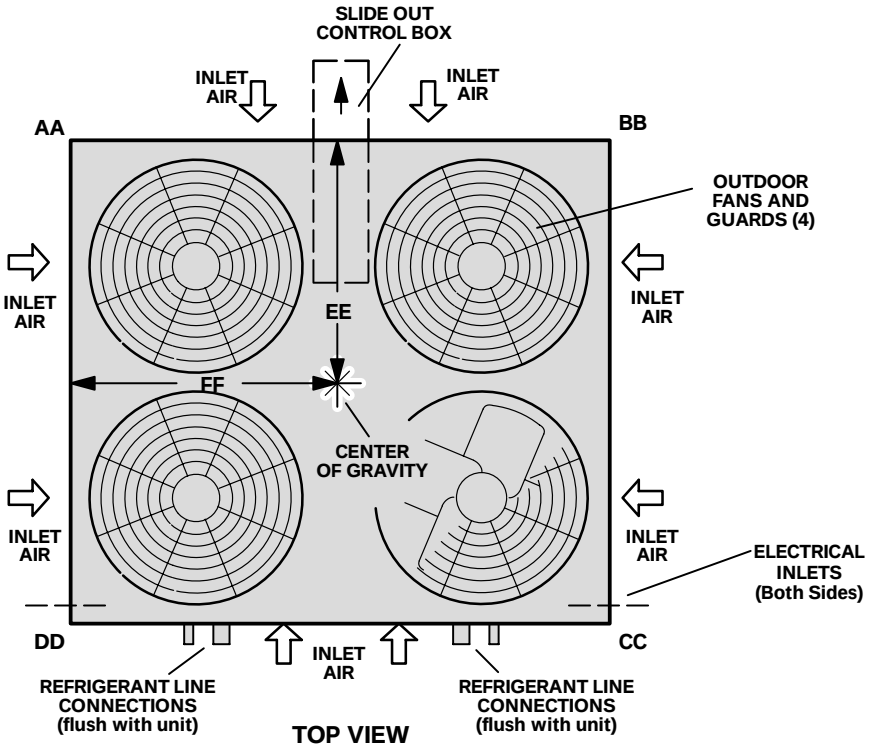


CORNER WEIGHT — kg (lbs.)

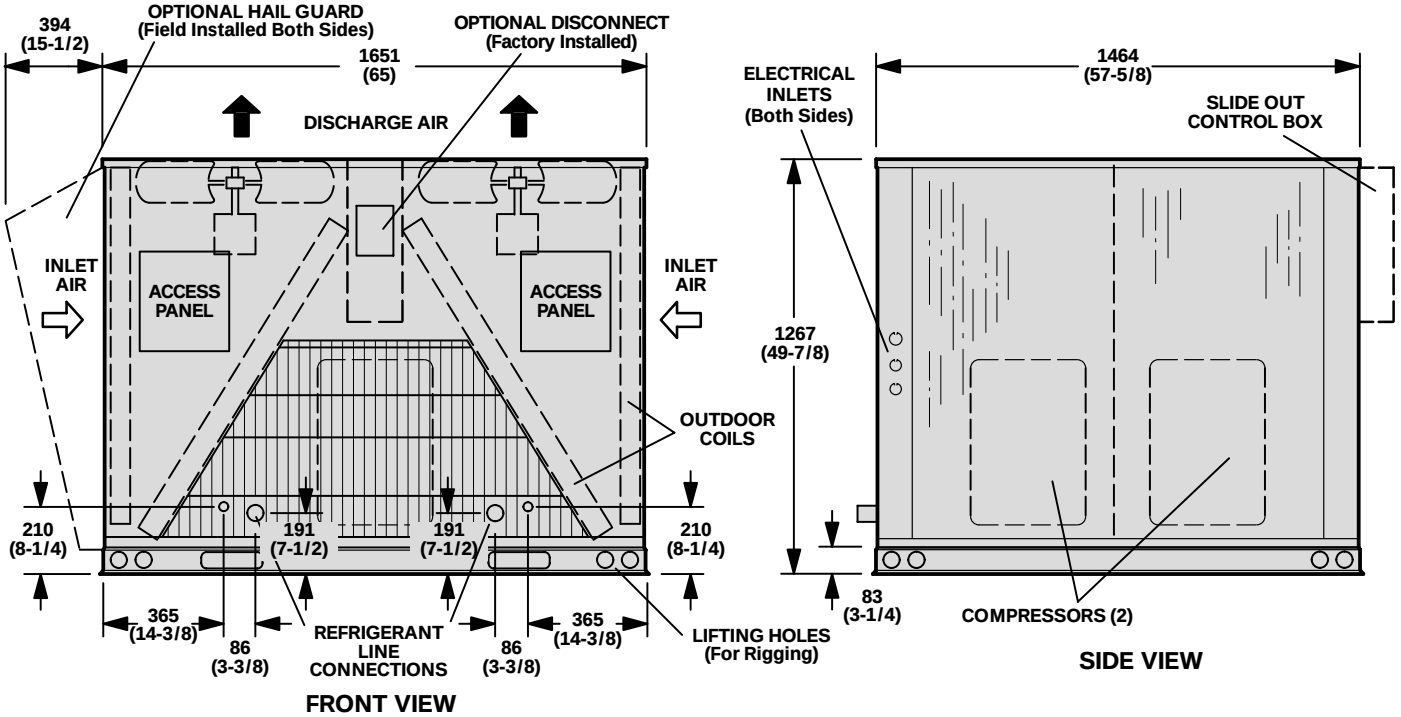
Model Number	AA		BB		CC		DD	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
LSA180C	104	230	104	230	104	230	104	230
LSA240C	119	262	119	262	119	262	119	262

CENTER OF GRAVITY — mm (in.)

Model Number	EE		FF	
	mm	inch	mm	inch
LSA180C	745	29-5/16	826	32-1/2
LSA240C	745	29-5/16	826	32-1/2



TOP VIEW

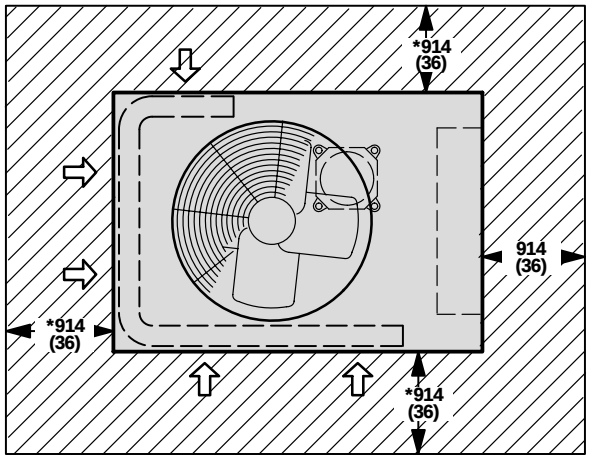


FRONT VIEW

SIDE VIEW

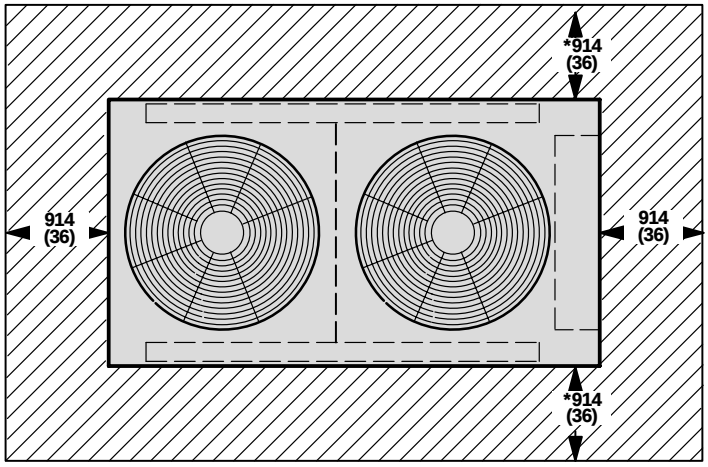
INSTALLATION CLEARANCES — mm (inches)

LSA072 AND LSA090



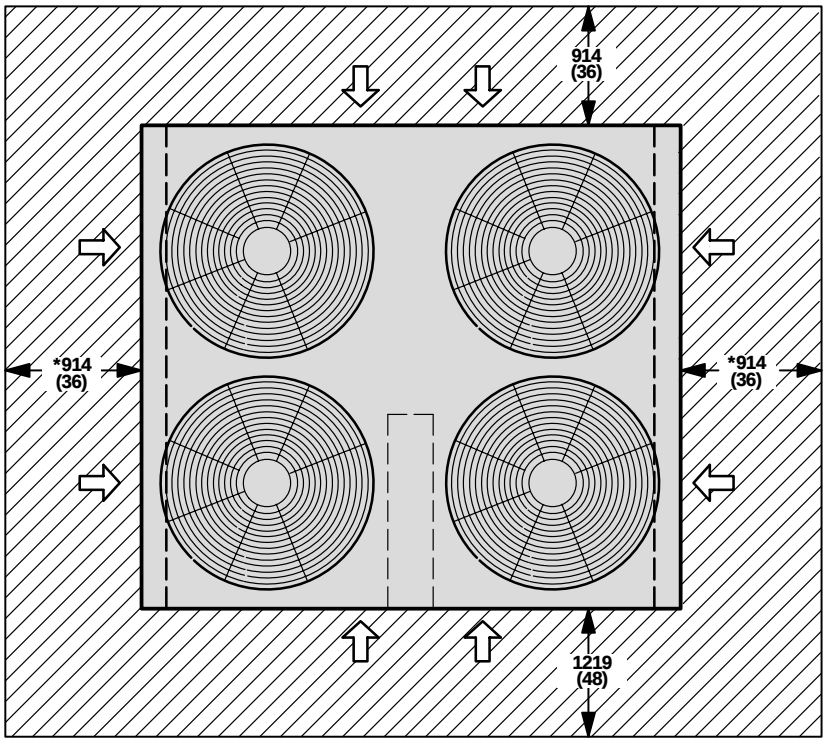
NOTE—1219 mm (48 inches) clearance required on top of unit.
***NOTE—One side of coil may be 305 mm (12 inches).**

LSA120



NOTE—1219 mm (48 inches) clearance required on top of unit.
***NOTE—One side of coil may be 305 mm (12 inches).**

LSA180 AND LSA240



NOTE—1219 mm (48 inches) clearance required on top of unit.
***NOTE—One side of coil may be 305 mm (12 inches).**

COOLING RATINGS — 50hz — CONDENSING UNITS

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

LSA072C — C23–51/65(FC)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature 27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	0.91	1920	17.0	58 000	3.98	.74	.89	1.0	16.1	54 800	4.71	.76	.92	1.0	15.0	51 300	5.59	.79	.95	1.0	14.0	47 600	6.60	.82	.98	1.0
	1.13	2400	17.6	60 100	4.02	.80	.96	1.0	16.7	56 900	4.75	.82	.98	1.0	15.7	53 500	5.63	.85	1.0	1.0	14.6	49 800	6.66	.89	1.0	1.0
	1.36	2880	18.2	62 100	4.05	.86	1.0	1.0	17.3	59 000	4.79	.88	1.0	1.0	16.3	55 500	5.67	.91	1.0	1.0	15.2	51 700	6.70	.95	1.0	1.0
19.4°C (67°F)	0.91	1920	18.0	61 500	4.04	.57	.72	.86	17.0	58 000	4.77	.59	.74	.88	15.9	54 200	5.65	.60	.76	.92	14.7	50 000	6.66	.62	.79	.95
	1.13	2400	18.5	63 200	4.07	.61	.78	.93	17.5	59 600	4.81	.62	.80	.96	16.3	55 600	5.68	.64	.83	.98	15.0	51 300	6.69	.67	.87	1.0
	1.36	2880	18.9	64 500	4.09	.64	.83	.99	17.8	60 800	4.83	.66	.86	1.0	16.6	56 700	5.70	.68	.90	1.0	15.3	52 300	6.73	.71	.94	1.0
21.7°C (71°F)	0.91	1920	19.2	65 500	4.11	.43	.56	.69	18.1	61 800	4.85	.43	.57	.71	16.9	57 700	5.72	.44	.59	.74	15.6	53 300	6.75	.44	.61	.77
	1.13	2400	19.7	67 200	4.15	.44	.60	.76	18.6	63 300	4.88	.44	.61	.78	17.3	59 000	5.76	.45	.63	.81	16.0	54 500	6.78	.46	.66	.85
	1.36	2880	20.0	68 300	4.17	.45	.64	.81	18.8	64 300	4.90	.46	.65	.84	17.6	60 000	5.78	.47	.68	.88	16.2	55 200	6.80	.48	.71	.92

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

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

LSA072C — CR26–65(N)(W)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																				
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	0.91	1920	16.7	56 900	3.97	.77	.92	1.0	15.8	53 800	4.70	.79	.94	1.0	14.7	50 300	5.55	.81	.97	1.0	13.7	46 600	6.57	.85	1.0	1.0
	1.13	2400	17.3	59 000	4.01	.83	.98	1.0	16.4	55 800	4.73	.85	1.0	1.0	15.4	52 500	5.60	.88	1.0	1.0	14.3	48 900	6.62	.92	1.0	1.0
	1.36	2880	17.9	61 000	4.04	.88	1.0	1.0	17.0	57 900	4.77	.91	1.0	1.0	16.0	54 500	5.65	.94	1.0	1.0	14.9	50 700	6.67	.98	1.0	1.0
19.4°C (67°F)	0.91	1920	17.7	60 300	4.03	.59	.74	.88	16.7	56 900	4.75	.61	.76	.91	15.6	53 100	5.62	.62	.79	.94	14.4	49 000	6.63	.64	.82	.98
	1.13	2400	18.1	61 900	4.05	.63	.81	.96	17.1	58 400	4.79	.65	.83	.98	16.0	54 500	5.65	.67	.86	1.0	14.7	50 200	6.67	.69	.90	1.0
	1.36	2880	18.5	63 100	4.08	.67	.86	1.0	17.4	59 500	4.81	.69	.89	1.0	16.3	55 500	5.68	.71	.92	1.0	15.0	51 200	6.70	.74	.96	1.0
21.7°C (71°F)	0.91	1920	18.8	64 200	4.10	.44	.58	.72	17.8	60 600	4.83	.44	.59	.74	16.6	56 500	5.70	.45	.61	.77	15.3	52 200	6.71	.46	.63	.80
	1.13	2400	19.3	65 800	4.13	.45	.62	.78	18.2	62 000	4.86	.46	.64	.81	16.9	57 800	5.73	.47	.66	.84	15.6	53 200	6.74	.48	.68	.88
	1.36	2880	19.6	66 900	4.15	.47	.66	.84	18.4	62 900	4.89	.48	.68	.87	17.2	58 700	5.75	.48	.70	.90	15.8	54 000	6.77	.50	.73	.94

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA072C — CH23–68

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																				
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	0.91	1920	17.7	60 300	4.01	.76	.91	1.0	16.6	56 800	4.73	.78	.93	1.0	15.5	53 000	5.60	.81	.97	1.0	14.4	49 100	6.61	.84	1.0	1.0
	1.13	2400	18.3	62 600	4.05	.82	.98	1.0	17.3	59 200	4.78	.85	1.0	1.0	16.3	55 600	5.65	.88	1.0	1.0	15.2	51 700	6.67	.92	1.0	1.0
	1.36	2880	19.0	65 000	4.09	.88	1.0	1.0	18.1	61 600	4.83	.91	1.0	1.0	16.9	57 800	5.70	.94	1.0	1.0	15.7	53 700	6.72	.98	1.0	1.0
19.4°C (67°F)	0.91	1920	18.7	63 800	4.07	.59	.74	.88	17.6	60 100	4.80	.60	.76	.90	16.4	56 000	5.67	.62	.78	.94	15.1	51 500	6.67	.64	.82	.98
	1.13	2400	19.2	65 600	4.11	.63	.80	.95	18.1	61 700	4.84	.64	.83	.98	16.8	57 400	5.70	.67	.86	1.0	15.5	52 900	6.71	.69	.90	1.0
	1.36	2880	19.6	67 000	4.14	.67	.86	1.0	18.5	63 000	4.86	.69	.89	1.0	17.2	58 700	5.73	.71	.93	1.0	15.8	54 000	6.74	.74	.96	1.0
21.7°C (71°F)	0.91	1920	19.9	67 900	4.15	.43	.57	.71	18.8	64 000	4.88	.44	.59	.73	17.4	59 500	5.76	.44	.61	.76	16.1	54 800	6.76	.45	.63	.80
	1.13	2400	20.4	69 700	4.19	.45	.62	.78	19.2	65 500	4.92	.45	.63	.81	17.8	60 900	5.79	.46	.66	.84	16.4	55 900	6.80	.48	.68	.88
	1.36	2880	20.7	70 800	4.21	.46	.66	.84	19.5	66 500	4.94	.47	.68	.87	18.1	61 800	5.81	.48	.71	.91	16.6	56 700	6.82	.50	.74	.95

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA072C — CB29M–65

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																				
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	0.90	1900	16.6	56 700	3.97	.76	.90	1.0	15.7	53 700	4.70	.78	.93	1.0	14.7	50 300	5.57	.80	.95	1.0	13.7	46 800	6.58	.83	.98	1.0
	1.04	2200	17.0	58 100	3.99	.79	.94	1.0	16.1	55 000	4.72	.81	.97	1.0	15.1	51 600	5.60	.84	.99	1.0	14.1	48 100	6.62	.88	1.0	1.0
	1.18	2500	17.4	59 300	4.01	.83	.97	1.0	16.5	56 200	4.74	.85	.99	1.0	15.5	52 900	5.62	.88	1.0	1.0	14.5	49 400	6.65	.92	1.0	1.0
19.4°C (67°F)	0.90	1900	17.6	60 100	4.02	.59	.73	.87	16.6	56 700	4.75	.60	.75	.90	15.6	53 100	5.62	.61	.78	.93	14.4	49 000	6.65	.63	.81	.96
	1.04	2200	17.9	61 100	4.04	.61	.77	.92	16.9	57 700	4.77	.62	.79	.94	15.8	53 900	5.64	.64	.82	.97	14.6	49 800	6.67	.66	.86	.99
	1.18	2500	18.1	61 900	4.05	.63	.81	.95	17.1	58 500	4.78	.65	.83	.98	16.0	54 600	5.66	.66	.86	.99	14.8	50 500	6.68	.69	.90	1.0
21.7°C (71°F)	0.90	1900	18.7	63 900	4.08	.43	.57	.71	17.7	60 400	4.82	.44	.58	.73	16.6	56 500	5.70	.44	.60	.75	15.3	52 200	6.73	.45	.62	.79
	1.04	2200	19.0	64 900	4.10	.44	.59	.75	18.0	61 300	4.84	.45	.61	.77	16.8	57 300	5.72	.45	.63	.80	15.5	52 900	6.74	.46	.65	.83
	1.18	2500	19.3	65 700	4.12	.45	.62	.79	18.2	62 000	4.85	.46	.64	.81	17.0	57 900	5.73	.46	.66	.84	15.7	53 500	6.76	.47	.68	.88

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA072C — CB17/CBH17–95V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																				
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	0.91	1920	18.5	63 200	4.06	.73	.88	1.0	17.4	59 500	4.79	.75	.91	1.0	16.2	55 400	5.67	.78	.95	1.0	15.0	51 100	6.69	.81	.99	1.0
	1.13	2400	19.3	65 700	4.11	.79	.96	1.0	18.1	61 900	4.84	.82	.99	1.0	17.0	58 100	5.72	.85	1.0	1.0	15.8	54 000	6.75	.89	1.0	1.0
	1.36	2880	20.0	68 200	4.15	.85	1.0	1.0	18.9	64 600	4.89	.88	1.0	1.0	17.8	60 600	5.77	.92	1.0	1.0	16.5	56 200	6.80	.96	1.0	1.0
19.4°C (67°F)	0.91	1920	19.7	67 300	4.13	.57	.71	.85	18.6	63 300	4.87	.58	.73	.88	17.3	58 900	5.74	.59	.75	.91	15.9	54 100	6.75	.61	.79	.96
	1.13	2400	20.3	69 400	4.17	.60	.77	.93	19.1	65 100	4.91	.62	.79	.97	17.7	60 500	5.78	.64	.83	.99	16.3	55 500	6.80	.66	.87	1.0
	1.36	2880	20.7	70 800	4.20	.64	.83	.99	19.5	66 500	4.94	.66	.86	1.0	18.1	61 800	5.81	.68	.90	1.0	16.6	56 800	6.83	.71	.95	1.0
21.7°C (71°F)	0.91	1920	21.0	71 800	4.21	.42	.55	.68	19.8	67 600	4.96	.42	.56	.70	18.4	62 800	5.83	.43	.58	.73	16.9	57 800	6.85	.44	.60	.76
	1.13	2400	21.7	73 900	4.26	.43	.59	.74	20.3	69 300	5.00	.44	.61	.77	18.9	64 400	5.87	.45	.63	.80	17.3	59 100	6.89	.46	.65	.85
	1.36	2880	22.0	75 200	4.28	.45	.63	.81	20.7	70 600	5.02	.46	.65	.84	19.2	65 500	5.90	.47	.67	.88	17.6	60 000	6.92	.48	.71	.93

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

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

LSA090C — CB17/CBH17–95V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																							
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	1.13	2400	24.0	82 000	6.07	.72	.86	.98	22.2	75 600	6.71	.75	.90	1.0	20.2	68 900	7.27	.78	.94	1.0	18.2	62 200	7.78	.82	.98	1.0
	1.42	3000	25.0	85 400	6.20	.78	.93	1.0	23.1	78 700	6.86	.81	.96	1.0	21.1	72 000	7.47	.85	1.0	1.0	19.3	65 700	8.05	.90	1.0	1.0
	1.70	3600	25.8	88 100	6.30	.83	.98	1.0	23.9	81 700	7.00	.86	1.0	1.0	22.1	75 300	7.66	.91	1.0	1.0	20.1	68 600	8.26	.95	1.0	1.0
19.4°C (67°F)	1.13	2400	25.7	87 600	6.28	.57	.70	.83	23.7	80 700	6.96	.58	.72	.86	21.5	73 500	7.55	.60	.76	.90	19.4	66 100	8.07	.62	.80	.95
	1.42	3000	26.5	90 400	6.39	.60	.75	.90	24.4	83 200	7.08	.62	.78	.93	22.2	75 700	7.69	.64	.82	.98	19.9	68 000	8.22	.67	.87	1.0
	1.70	3600	27.1	92 500	6.47	.63	.81	.96	24.9	85 000	7.17	.65	.84	.99	22.7	77 400	7.79	.68	.89	1.0	20.4	69 600	8.34	.72	.94	1.0
21.7°C (71°F)	1.13	2400	27.4	93 500	6.51	.43	.55	.67	25.3	86 300	7.23	.43	.56	.70	23.1	78 700	7.87	.44	.58	.73	20.8	70 900	8.43	.45	.61	.77
	1.42	3000	28.3	96 400	6.62	.44	.58	.73	26.0	88 700	7.35	.44	.60	.76	23.7	80 800	8.00	.45	.63	.80	21.3	72 600	8.57	.46	.66	.85
	1.70	3600	28.8	98 300	6.69	.45	.62	.78	26.5	90 400	7.43	.46	.64	.82	24.1	82 200	8.08	.47	.67	.86	21.6	73 800	8.65	.49	.71	.92

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA090C — CB17/CBH17–135V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																							
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	1.13	2400	24.4	83 400	6.14	.72	.86	.98	22.5	76 700	6.80	.75	.90	1.0	20.4	69 700	7.38	.78	.94	1.0	18.4	62 800	7.90	.83	.99	1.0
	1.42	3000	25.4	86 800	6.27	.78	.93	1.0	23.4	79 900	6.95	.81	.97	1.0	21.4	73 000	7.58	.85	1.0	1.0	19.5	66 500	8.18	.90	1.0	1.0
	1.70	3600	26.3	89 600	6.38	.83	.98	1.0	24.3	83 000	7.10	.87	1.0	1.0	22.4	76 400	7.78	.91	1.0	1.0	20.4	69 500	8.40	.96	1.0	1.0
19.4°C (67°F)	1.13	2400	26.1	89 100	6.36	.57	.70	.83	24.0	81 900	7.05	.58	.72	.86	21.8	74 400	7.66	.60	.76	.91	19.6	66 800	8.20	.62	.80	.96
	1.42	3000	27.0	92 100	6.47	.60	.75	.90	24.8	84 600	7.18	.62	.78	.94	22.5	76 700	7.80	.64	.83	.98	20.1	68 700	8.35	.67	.88	1.0
	1.70	3600	27.6	94 200	6.55	.63	.81	.96	25.3	86 400	7.27	.65	.84	.99	23.0	78 400	7.91	.68	.89	1.0	20.6	70 400	8.47	.72	.94	1.0
21.7°C (71°F)	1.13	2400	27.9	95 200	6.58	.43	.55	.67	25.7	87 600	7.33	.43	.56	.70	23.4	79 800	7.99	.44	.58	.73	21.0	71 700	8.56	.45	.61	.77
	1.42	3000	28.8	98 200	6.70	.44	.58	.73	26.4	90 200	7.45	.44	.60	.76	24.0	82 000	8.12	.45	.63	.80	21.5	73 500	8.70	.47	.66	.85
	1.70	3600	29.4	100 300	6.78	.45	.62	.78	26.9	91 900	7.54	.46	.64	.82	24.4	83 400	8.20	.47	.67	.87	21.9	74 700	8.79	.49	.71	.92

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA120C — CB17/CBH17–95V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																							
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	1.51	3200	31.0	105 800	7.96	.72	.87	.98	28.9	98 500	8.89	.75	.90	1.0	26.6	90 800	9.77	.78	.94	1.0	24.3	83 000	10.59	.81	.98	1.0
	1.89	4000	32.2	110 000	8.09	.78	.94	1.0	30.0	102 500	9.07	.81	.97	1.0	27.8	94 800	9.99	.84	.99	1.0	25.6	87 300	10.88	.89	1.0	1.0
	2.27	4800	33.3	113 600	8.21	.83	.99	1.0	31.2	106 300	9.22	.86	1.0	1.0	29.0	98 800	10.20	.90	1.0	1.0	26.7	91 000	11.12	.95	1.0	1.0
19.4°C (67°F)	1.51	3200	33.1	112 800	8.18	.56	.70	.83	30.7	104 800	9.17	.58	.72	.86	28.3	96 500	10.08	.59	.75	.90	25.7	87 800	10.92	.62	.79	.95
	1.89	4000	34.1	116 200	8.29	.60	.75	.91	31.6	107 900	9.30	.61	.78	.94	29.1	99 300	10.23	.63	.82	.97	26.4	90 200	11.09	.66	.86	1.0
	2.27	4800	34.8	118 800	8.37	.63	.81	.96	32.3	110 300	9.40	.65	.84	.99	29.7	101 400	10.35	.67	.88	1.0	27.0	92 200	11.22	.71	.93	1.0
21.7°C (71°F)	1.51	3200	35.3	120 300	8.42	.42	.55	.67	32.8	112 000	9.47	.43	.56	.70	30.2	103 200	10.44	.43	.58	.73	27.5	94 000	11.33	.44	.60	.76
	1.89	4000	36.3	123 800	8.53	.43	.58	.73	33.7	115 000	9.60	.44	.60	.76	31.0	105 800	10.58	.45	.62	.79	28.2	96 200	11.48	.46	.65	.84
	2.27	4800	37.0	126 100	8.60	.45	.62	.79	34.3	117 100	9.68	.45	.64	.82	31.5	107 600	10.67	.47	.67	.86	28.6	97 700	11.58	.48	.70	.91

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA120C — CB17/CBH17–135V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																							
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	1.51	3200	32.1	109 500	8.08	.72	.86	.98	29.8	101 800	9.04	.75	.90	1.0	27.5	93 700	9.93	.77	.93	1.0	25.0	85 300	10.76	.81	.98	1.0
	1.89	4000	33.4	113 900	8.22	.77	.93	1.0	31.1	106 000	9.22	.80	.97	1.0	28.7	97 800	10.16	.84	1.0	1.0	26.4	90 100	11.06	.89	1.0	1.0
	2.27	4800	34.5	117 700	8.34	.83	.99	1.0	32.2	110 000	9.39	.86	1.0	1.0	29.9	102 100	10.38	.90	1.0	1.0	27.5	93 900	11.32	.95	1.0	1.0
19.4°C (67°F)	1.51	3200	34.2	116 800	8.31	.56	.70	.83	31.8	108 500	9.33	.58	.72	.86	29.2	99 700	10.25	.59	.75	.90	26.5	90 500	11.10	.61	.79	.95
	1.89	4000	35.3	120 500	8.43	.59	.75	.90	32.8	111 800	9.46	.61	.78	.94	30.1	102 600	10.41	.63	.82	.98	27.3	93 100	11.28	.66	.86	1.0
	2.27	4800	36.1	123 300	8.51	.63	.81	.96	33.5	114 200	9.57	.65	.84	.99	30.7	104 800	10.53	.67	.88	1.0	27.9	95 200	11.42	.71	.93	1.0
21.7°C (71°F)	1.51	3200	36.6	124 800	8.56	.42	.55	.67	34.0	115 900	9.64	.43	.56	.69	31.3	106 700	10.62	.43	.58	.72	28.4	97 000	11.54	.44	.60	.76
	1.89	4000	37.6	128 400	8.68	.43	.58	.73	34.9	119 200	9.77	.44	.60	.76	32.1	109 500	10.77	.45	.62	.79	29.1	99 300	11.69	.46	.65	.84
	2.27	4800	38.4	131 000	8.75	.45	.62	.78	35.6	121 400	9.86	.45	.64	.82	32.6	111 300	10.87	.46	.67	.86	29.6	100 900	11.79	.48	.70	.91

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

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

LSA180C — CB17/CBH17–185V – ONE COMPRESSOR OPERATING

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																					
			18°C (65°F)						24°C (75°F)						29°C (85°F)						35°C (95°F)			
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	2.27	4800	25.0	85 300	4.92	.71	.85	.97	23.9	81 500	5.42	.72	.86	.98	22.7	77 500	5.88	.74	.89	1.0	21.5	73 500	6.31	.76	.91	1.0
	2.83	6000	26.0	88 800	5.00	.76	.92	1.0	24.9	84 900	5.52	.78	.94	1.0	23.7	80 800	6.00	.80	.96	1.0	22.4	76 600	6.45	.82	.98	1.0
	3.40	7200	26.9	91 800	5.06	.82	.97	1.0	25.8	87 900	5.60	.84	.99	1.0	24.6	83 900	6.10	.86	1.0	1.0	23.4	79 900	6.58	.88	1.0	1.0
19.4°C (67°F)	2.27	4800	26.6	90 900	5.04	.56	.68	.81	25.5	86 900	5.57	.56	.70	.83	24.2	82 600	6.06	.57	.71	.85	22.9	78 100	6.51	.58	.73	.87
	2.83	6000	27.5	94 000	5.10	.59	.74	.88	26.3	89 700	5.65	.60	.75	.90	25.0	85 200	6.15	.61	.77	.93	23.6	80 600	6.61	.62	.80	.95
	3.40	7200	28.2	96 300	5.15	.62	.79	.95	26.9	91 800	5.71	.63	.81	.97	25.6	87 300	6.22	.65	.84	.99	24.2	82 500	6.69	.66	.86	1.0
21.7°C (71°F)	2.27	4800	28.5	97 300	5.17	.42	.54	.66	27.2	92 900	5.73	.42	.55	.67	25.9	88 400	6.25	.42	.56	.69	24.5	83 600	6.74	.43	.57	.71
	2.83	6000	29.4	100 300	5.23	.43	.57	.71	28.0	95 700	5.81	.43	.58	.73	26.6	90 900	6.34	.44	.60	.75	25.2	86 000	6.83	.44	.61	.77
	3.40	7200	30.0	102 300	5.28	.44	.61	.77	28.6	97 600	5.86	.45	.62	.79	27.1	92 600	6.40	.45	.64	.81	25.6	87 500	6.90	.46	.65	.84

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA180C — CB17/CBH17–185V – BOTH COMPRESSORS OPERATING

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																					
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)			
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	2.27	4800	46.7	159 400	11.51	.73	.87	.99	43.1	147 200	12.84	.75	.91	1.0	39.4	134 500	14.03	.79	.95	1.0	35.7	121 800	15.14	.83	.99	1.0
	2.83	6000	48.7	166 100	11.72	.78	.95	1.0	45.1	153 800	13.12	.82	.98	1.0	41.4	141 400	14.41	.86	1.0	1.0	37.8	129 000	15.62	.91	1.0	1.0
	3.40	7200	50.5	172 200	11.91	.84	.99	1.0	46.9	160 200	13.38	.88	1.0	1.0	43.3	147 600	14.74	.93	1.0	1.0	39.4	134 500	15.99	.98	1.0	1.0
19.4°C (67°F)	2.27	4800	49.7	169 700	11.84	.57	.70	.84	45.9	156 500	13.23	.58	.73	.87	41.8	142 700	14.48	.60	.76	.92	37.6	128 300	15.58	.63	.80	.97
	2.83	6000	51.3	175 200	12.00	.60	.76	.92	47.3	161 500	13.45	.62	.79	.96	43.1	147 200	14.72	.64	.84	.99	38.8	132 300	15.86	.68	.89	1.0
	3.40	7200	52.6	179 400	12.12	.64	.82	.98	48.4	165 200	13.60	.66	.86	1.0	44.1	150 600	14.91	.69	.91	1.0	39.8	135 700	16.09	.73	.96	1.0
21.7°C (71°F)	2.27	4800	53.2	181 600	12.22	.42	.55	.68	49.1	167 600	13.69	.43	.56	.70	44.8	152 900	15.03	.43	.59	.74	40.3	137 600	16.21	.44	.61	.78
	2.83	6000	54.7	186 800	12.36	.43	.59	.74	50.5	172 200	13.88	.44	.61	.77	46.0	156 900	15.24	.45	.63	.81	41.3	140 900	16.43	.46	.67	.86
	3.40	7200	55.8	190 500	12.46	.45	.62	.80	51.4	175 300	14.01	.46	.65	.84	46.7	159 500	15.38	.47	.68	.88	42.0	143 200	16.59	.49	.72	.94

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA240C — CB17/CBH17–275V — ONE COMPRESSOR OPERATING

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																					
			18°C (65°F)						24°C (75°F)						29°C (85°F)						35°C (95°F)			
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	3.02	6400	34.9	119 200	6.89	.67	.82	.96	33.6	114 500	7.58	.68	.84	.98	32.1	109 400	8.23	.69	.86	1.0	30.5	104 200	8.84	.71	.89	1.0
	3.78	8000	36.4	124 100	7.00	.72	.90	1.0	34.9	119 200	7.71	.74	.92	1.0	33.4	114 000	8.38	.76	.95	1.0	31.9	108 700	9.03	.78	.97	1.0
	4.53	9600	37.6	128 200	7.09	.78	.97	1.0	36.1	123 200	7.82	.80	.99	1.0	34.6	118 200	8.52	.83	1.0	1.0	33.1	113 100	9.20	.85	1.0	1.0
19.4°C (67°F)	3.02	6400	37.2	126 900	7.06	.52	.64	.78	35.7	121 700	7.78	.53	.65	.80	34.1	116 300	8.46	.54	.67	.82	32.4	110 600	9.11	.55	.68	.85
	3.78	8000	38.4	131 100	7.15	.55	.69	.86	36.8	125 600	7.89	.56	.71	.89	35.1	119 900	8.59	.57	.73	.91	33.4	114 100	9.24	.58	.75	.94
	4.53	9600	39.3	134 100	7.21	.58	.76	.94	37.6	128 400	7.97	.59	.78	.96	36.0	122 700	8.68	.60	.80	.98	34.2	116 600	9.35	.62	.83	1.0
21.7°C (71°F)	3.02	6400	39.7	135 500	7.24	.39	.51	.62	38.1	130 000	8.01	.39	.51	.63	36.4	124 200	8.73	.40	.52	.64	34.6	118 200	9.41	.40	.53	.66
	3.78	8000	40.9	139 500	7.33	.40	.54	.67	39.2	133 700	8.11	.41	.55	.69	37.4	127 600	8.84	.41	.56	.70	35.6	121 400	9.53	.41	.57	.73
	4.53	9600	41.7	142 300	7.39	.41	.57	.73	39.9	136 200	8.18	.42	.58	.75	38.1	130 000	8.92	.42	.60	.78	36.2	123 500	9.62	.43	.61	.80

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

LSA240C — CB17/CBH17–275V — BOTH COMPRESSORS OPERATING

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																					
			27°C (80°F)						35°C (95°F)						43°C (110°F)						52°C (125°F)			
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	3.02	6400	64.2	219 000	15.93	.72	.87	.99	59.8	204 000	17.82	.75	.90	1.0	55.2	188 300	19.55	.78	.94	1.0	50.4	172 100	21.20	.82	.99	1.0
	3.78	8000	66.8	227 900	16.22	.78	.95	1.0	62.3	212 600	18.18	.81	.98	1.0	57.8	197 300	20.03	.85	1.0	1.0	53.3	181 700	21.84	.90	1.0	1.0
	4.53	9600	69.2	236 100	16.47	.84	1.0	1.0	64.8	221 200	18.53	.88	1.0	1.0	60.3	205 600	20.48	.92	1.0	1.0	55.4	189 200	22.32	.96	1.0	1.0
19.4°C (67°F)	3.02	6400	68.2	232 700	16.37	.56	.70	.84	63.4	216 400	18.34	.58	.72	.87	58.4	199 300	20.16	.59	.75	.91	53.2	181 400	21.82	.62	.79	.96
	3.78	8000	70.3	240 000	16.60	.60	.76	.92	65.4	223 000	18.62	.62	.79	.95	60.1	205 200	20.46	.64	.83	.99	54.7	186 600	22.18	.67	.87	1.0
	4.53	9600	71.9	245 400	16.77	.63	.82	.98	66.8	228 000	18.83	.65	.85	1.0	61.5	209 700	20.72	.68	.90	1.0	56.0	191 100	22.48	.72	.95	1.0
21.7°C (71°F)	3.02	6400	72.8	248 400	16.87	.42	.55	.68	67.7	231 100	18.95	.42	.56	.70	62.4	212 900	20.88	.43	.58	.73	56.8	193 900	22.64	.44	.60	.76
	3.78	8000	74.9	255 400	17.08	.43	.58	.74	69.5	237 300	19.19	.44	.60	.77	63.9	218 200	21.14	.45	.63	.80	58.1	198 300	22.94	.46	.66	.85
	4.53	9600	76.2	260 000	17.23	.45	.62	.80	70.7	241 400	19.36	.45	.65	.83	65.0	221 800	21.33	.47	.67	.88	59.0	201 400	23.14	.48	.71	.93

NOTE – All values are gross capacities and do not include evaporator coil blower motor heat deduction.

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

LSA090P – COOLING CAPACITY – CB17/CBH17–95V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																					
			29°C (85°F)						35°C (95°F)						41°C (85°F)						46°C (115°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	1.13	2400	23.9	81 400	5.84	.71	.86	.99	22.0	74 900	6.51	.73	.90	1.0	20.0	68 100	7.12	.77	.95	1.0	18.0	61 300	7.67	.82	1.0	1.0
	1.42	3000	24.9	84 800	5.95	.76	.93	1.0	22.9	78 100	6.66	.79	.98	1.0	21.0	71 500	7.31	.84	1.0	1.0	19.1	65 100	7.93	.90	1.0	1.0
	1.70	3600	25.7	87 800	6.04	.82	.99	1.0	23.9	81 400	6.79	.86	1.0	1.0	22.0	74 900	7.49	.91	1.0	1.0	19.9	68 000	8.13	.97	1.0	1.0
19.4°C (67°F)	1.13	2400	25.5	87 100	6.02	.55	.68	.82	23.4	80 000	6.74	.57	.71	.86	21.3	72 600	7.37	.58	.74	.91	19.0	65 000	7.93	.61	.79	.97
	1.42	3000	26.4	90 000	6.11	.58	.73	.90	24.2	82 600	6.84	.60	.77	.94	22.0	74 900	7.49	.62	.81	.99	19.6	66 900	8.07	.66	.87	1.0
	1.70	3600	27.0	92 100	6.17	.61	.79	.96	24.8	84 500	6.92	.64	.84	1.0	22.4	76 600	7.59	.67	.89	1.0	20.1	68 600	8.18	.71	.95	1.0
21.7°C (71°F)	1.13	2400	27.3	93 300	6.21	.41	.53	.65	25.2	85 900	6.98	.41	.55	.68	22.9	78 000	7.66	.42	.57	.72	20.5	69 900	8.27	.43	.60	.76
	1.42	3000	28.2	96 200	6.29	.42	.57	.71	25.9	88 400	7.08	.43	.59	.74	23.5	80 100	7.77	.44	.61	.79	21.0	71 600	8.38	.45	.65	.85
	1.70	3600	28.8	98 200	6.35	.43	.60	.77	26.4	90 100	7.15	.44	.63	.81	23.9	81 600	7.85	.46	.66	.86	21.3	72 800	8.46	.47	.70	.93

NOTE – All values are gross capacities and do not include indoor coil blower motor heat deduction.

LSA090P – HEATING CAPACITY – CB17/CBH17–95V

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		18°C (65°F)			7°C (45°F)			–4°C (25°F)			–15°C (5°F)			-28°C (-15°F)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
m^3/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
1.13	2400	26.8	91 500	6.23	20.7	70 700	5.28	14.7	50 000	4.34	8.9	30 400	3.41	4.4	14 900	2.63
1.42	3000	27.4	93 500	6.07	21.3	72 700	5.13	15.2	52 000	4.19	9.5	32 400	3.26	5.0	16 900	2.47
1.70	3600	27.9	95 100	5.96	21.8	74 300	5.01	15.7	53 600	4.07	10.0	34 000	3.14	5.4	18 500	2.36

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.
NOTE — Indoor unit should not be operated in the heating cycle below 1.60 m^3/s (3400 cfm).

LSA120P – COOLING CAPACITY – CB17/CBH17–135V

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Temperature																					
			29°C (85°F)						35°C (95°F)						41°C (105°F)						46°C (115°F)					
			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor kW	Sensible To Total Ratio (S/T) Dry Bulb		
	m^3/s	cfm	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh		24°C 75°F	27°C 80°F	29°C 85°F
17.2°C (63°F)	1.51	3200	31.4	107 100	7.80	.74	.88	.99	29.2	99 500	8.75	.76	.91	1.0	26.9	91 700	9.61	.79	.94	1.0	24.5	83 500	10.43	.83	.98	1.0
	1.89	4000	32.6	111 400	7.94	.79	.94	1.0	30.4	103 800	8.91	.82	.97	1.0	28.1	95 900	9.83	.85	1.0	1.0	25.9	88 400	10.73	.90	1.0	1.0
	2.27	4800	33.8	115 400	8.04	.84	.99	1.0	31.6	107 900	9.08	.88	1.0	1.0	29.4	100 200	10.05	.91	1.0	1.0	27.0	92 100	10.98	.96	1.0	1.0
19.4°C (67°F)	1.51	3200	33.5	114 400	8.02	.57	.71	.84	31.1	106 200	9.01	.59	.73	.87	28.6	97 700	9.92	.60	.76	.91	26.0	88 600	10.76	.63	.80	.96
	1.89	4000	34.6	118 100	8.13	.60	.77	.91	32.1	109 500	9.15	.62	.80	.95	29.5	100 500	10.07	.65	.83	.98	26.7	91 200	10.93	.67	.88	1.0
	2.27	4800	35.4	120 800	8.21	.64	.82	.97	32.9	112 100	9.24	.66	.85	.99	30.1	102 800	10.19	.69	.89	1.0	27.4	93 400	11.06	.72	.94	1.0
21.7°C (71°F)	1.51	3200	35.9	122 400	8.25	.43	.56	.68	33.4	113 800	9.31	.43	.57	.71	30.7	104 700	10.28	.44	.59	.74	27.9	95 100	11.17	.45	.61	.78
	1.89	4000	37.0	126 100	8.35	.44	.59	.74	34.3	117 000	9.43	.45	.61	.77	31.5	107 500	10.42	.45	.63	.81	28.6	97 500	11.32	.47	.66	.85
	2.27	4800	37.7	128 600	8.42	.45	.63	.80	35.0	119 300	9.51	.46	.65	.83	32.0	109 300	10.51	.47	.68	.87	29.0	99 100	11.42	.49	.71	.92

NOTE – All values are gross capacities and do not include indoor coil blower motor heat deduction.

LSA120P – HEATING CAPACITY – CB17/CBH17–135V

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		18°C (65°F)			7°C (45°C)			–4°C (25°F)			–15°C (5°F)			-28°C (-15°F)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
m^3/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
1.51	3200	36.5	124 600	8.20	27.4	93 400	7.29	18.3	62 600	6.39	9.8	33 600	5.39	5.0	17 200	4.05
1.89	4000	37.2	126 800	7.96	28.0	95 600	7.08	19.0	64 800	6.15	10.5	35 800	5.15	5.7	19 400	3.81
2.27	4800	37.7	128 500	7.79	28.5	97 300	6.88	19.5	66 500	5.98	11.0	37 500	4.98	6.2	21 100	3.64

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.
NOTE — Indoor unit should not be operated in the heating cycle below 1.60 m^3/s (3400 cfm).