ALLIED Commercial™

AIR CONDITIONERS

ELS

T-SERIES COMMERCIAL SPLIT SYSTEMS

R-410A - 60 HZ

Bulletin No. ELS-072-240 (6/2018)

PRODUCT SPECIFICATIONS

072-090 Models

120-150 Models

180-240 Models

EER up to 12.0
6 to 20 Tons
Cooling Capacity - 71,000 to 232,000 Btuh

MODEL NUMBER IDENTIFICATION

EL S 120 S 4 S T 1 Y

Brand/Family
EL = E-Series Product Line

Unit Type
S = Split System Air Conditioner

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

Cooling Efficiency
S = Standard Efficiency

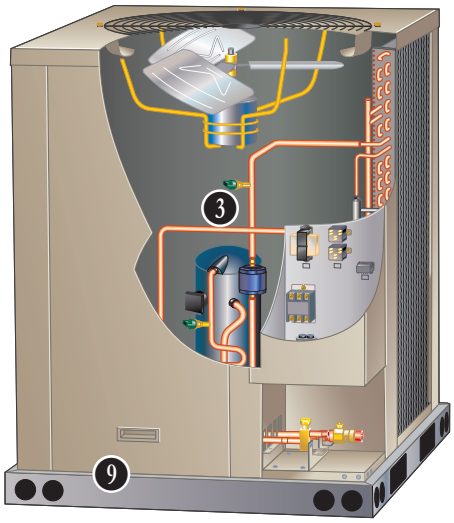
Refrigerant Type
4 = R–410A

Refrigerant Circuits
S = Single Circuit
D = Dual Circuits

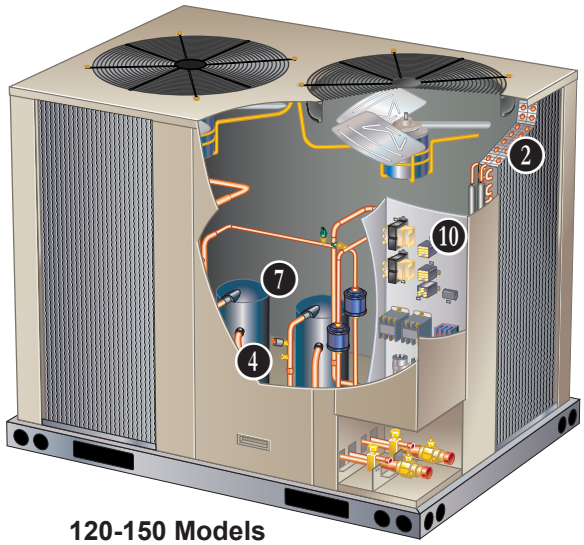
Part Load Capability
S = Single StageCompressor
T = Two- Stage Compressor

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

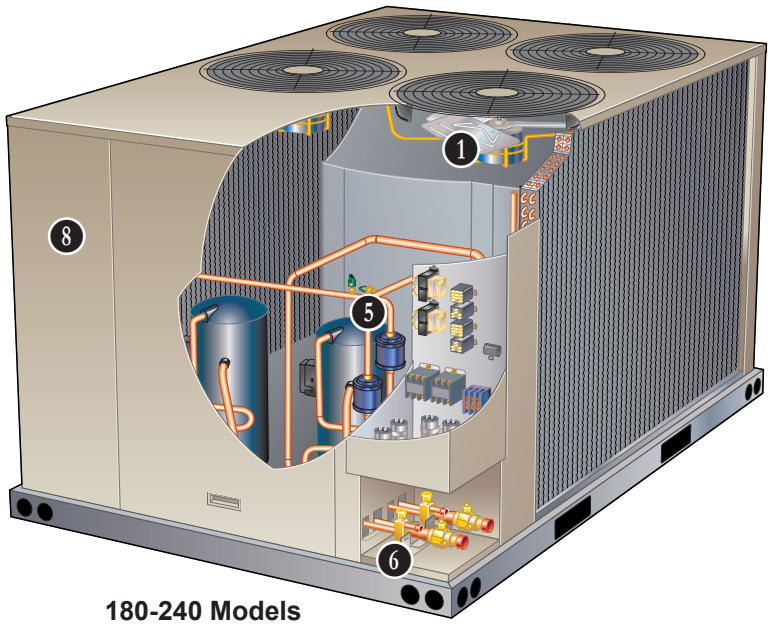
Voltage
Y = 208/230V-3 phase-60hz
G = 460V-3 phase-60hz
J = 575V-3 phase-60hz



072-090 Models



120-150 Models



180-240 Models

CONTENTS

EQUIPMENT WARRANTY

Compressor - Limited warranty for five years in non-residential applications.

All other covered components - One year in non-residential applications.

Refer to Allied Equipment Limited Warranty certificate for specific details.

APPLICATIONS

Air conditioners are available in 6, 7.5, 10 ton (one compressor) and 10, 12.5, 15 and 20 ton (two compressors) nominal sizes.

Matching air handlers provide a wide range of cooling capacities and applications. See AHRI Ratings tables.

See Air Handlers sections for air handler data.

Units shipped completely factory assembled, piped, and wired. Each unit is test operated at the factory insuring proper operation.

Installer must set air conditioner, connect refrigerant lines, add refrigerant charge and make electrical connections to complete job.

APPROVALS

All units tested in an ETL certified environmental testing facility.

AHRI Certified to AHRI Standard 340/360-2015.

Sound tested in accordance with test conditions included in AHRI Standard 270 or 370.

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

All units are ETL listed.

All units meet two-stage cooling requirements of ASHRAE 90.1, IECC 2015, and California Code of Regulations, Title 24.

ISO 9001 Registered Manufacturing Quality System.

REFRIGERATION SYSTEM

Refrigerant

FEATURES AND BENEFITS

Units operate with chlorine-free,ozone friendly, R-410A (field furnished).

1 Outdoor Coil Fan(s)

ELS072 and ELS090 units have one outdoor fan.
ELS120 and ELS150 units have two outdoor fans.
ELS180 and ELS240 units have four outdoor fans.

Direct drive fan(s) moves large volumes of air uniformly through entire condenser 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, overload protected and equipped with a rain shield.

Fan service access is accomplished by removal of fan guard(s) or removal of access panel.

2 Copper Tube/Enhanced Fin Coil(s)

Units are equipped with a wrap-around “U” shaped coil (072-090-120 models) or two “L” shaped coils (150-180-240 models).

Coils are 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 machine brazed 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 ensure leakproof construction.

Completely accessible for cleaning.

3 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.

4 Loss of Charge Switch

Shuts off unit if liquid line pressure falls below setting.

Provides loss of charge and freeze-up protection.

Automatic reset.

5 Hi-Capacity Drier(s)

Drier traps moisture or dirt that could contaminate the refrigerant system.

6 Refrigerant Lines and Service Valves

Suction and liquid lines are located on corner of unit cabinet and are made with sweat connections. See dimension drawings.

Fully serviceable suction and liquid line service valves 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. Accessible outside of unit cabinet.

7 COMPRESSORS

ELS072, ELS090 and ELS120S4S models feature one two-stage scroll compressor. ELS120S4D, ELS150S4D, ELS180S4D and ELS240S4D models have two single-stage scroll compressors.

Compressor features high efficiency with uniform suction flow, constant discharge flow and high volumetric efficiency and quiet operation.

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 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 be worked toward the center and discharged.

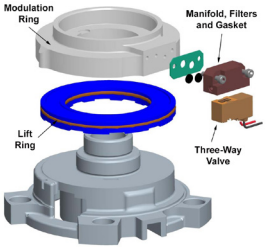
Low gas pulses during compression reduces operational sound levels.

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)

ELS072, ELS090 and ELS120S4S Two Stage Models



A 24-volt DC solenoid valve inside the compressor controls staging. When the 3-way solenoid is energized it moves the lift ring assembly to block the ports and the compressor operates at full-load or 100% capacity. When the solenoid is de-energized the lift ring assembly moves to unblock the compressor ports and the compressor operates at part-load or approximately 67% of its full-load capacity.

The “loading” and “unloading” of the two stage scroll is done “on the fly” without shutting off the single-speed compressor motor between stages.

Crankcase Heater(s) (All Models)
Crankcase heater(s) prevents migration of liquid refrigerant into compressor(s) and ensures proper compressor lubrication.

CABINET

8 Heavy-gauge, pre-painted steel cabinet provides superior rust and corrosion protection.

Removable panels allow access for unit servicing.

9 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.

10 **Control Box**
Control box located in separate compartment in unit cabinet.

All controls are pre-wired at the factory.

Control box is large enough for field installed DDC or other field supplied control modules.

Options/Accessories

Factory Installed

Corrosion Protection
Polymeric epoxy coating that is deposited by electrical transport (electrophoresis), using a process known as electrocoat (e-coat). Available for enhanced coil corrosion protection. Factory installed on the condenser coil. Painted base pan is provided with this option.

Field Installed

Combination Coil/Hail Guards
Heavy gauge steel frame with expanded metal mesh to protect the outdoor coil from damage.

CONTROLS

Options/Accessories

Field Installed

Low Ambient Control
Air conditioning units operate satisfactorily down to 45ºF outdoor air temperature without any additional controls.

Low Ambient Control Kit can be field installed, allowing unit operation down to 0ºF using pressure-regulated fan speed control.

Indoor Air Quality (CO_2) Sensors
Monitors CO_2 levels, reports which adjusts economizer dampers as needed.

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

Aftermarket Unit Controller Options
See Options/Accessories table for selection.

ELECTRICAL

Field Installed

GFI Service Outlets (2)
115V ground fault circuit interrupter (GFCI) type, non-powered, field wired.

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SPECIFICATIONS - 6 - 7.5 TON

General Data		Model No.	ELS072S4S	ELS090S4S
		Nominal Size - Tons	6	7.5
Connections (sweat)		Liquid line - in. (o.d)	(1) 3/8	(1) 5/8
		Suction line - in. (o.d)	(1) 1-1/8	(1) 1-1/8
Refrigerant (R-410A)		Factory Charge	R-410A holding charge (2 lbs. per circuit)	
		No. of Circuits	1	1
		[1] Field charge (25 ft. line set)	18 lbs. 0 oz. (includes holding charge)	20 lbs. 0 oz. (includes holding charge)
Compressor			(1) Two Stage Scroll	(1) Two Stage Scroll
Condenser Coil		Net face area - sq. ft. Outer coil	29.3	29.3
		Inner coil	14.2	28.4
		Tube diameter - in. & no. of rows	3/8 - 1.5	3/8 - 2
		Fins per inch	20	20
Condenser Fan(s)		Diameter - in. & no. of blades	(1) 24 - 3	(1) 24 - 4
		Motor hp	(1) 1/3	(1) 1/2
		Total air volume - cfm	4700	5600
		Rpm	1075	1075
		Watts	400	580

ELECTRICAL DATA

		Line voltage data - 60 hz - 3 phase	208/230V	460V	575V	208/230V	460V	575V
		[2] Maximum Overcurrent Protection (amps)	40	15	15	60	25	20
		[3] Minimum circuit ampacity	24	12	9	37	17	13
Compressor		No. of Compressors	1	1	1	1	1	1
		Rated load amps	17.6	8.5	6.3	26.9	12	9
		Locked rotor amps	136	66	55	165	94	65
Condenser Fan Motor (1 phase)		No. of motors	1	1	1	1	1	1
		Full load amps	1.7	0.8	1	3	1.5	1.2
		Locked rotor amps	4.3	2.4	1.9	6	3	2.9

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

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

[1] Field provided charge with 25 ft. line set. 2 HACR type circuit breaker or fuse.

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

SPECIFICATIONS - 10 TON

General Data		Model No.	ELS120S4S	ELS120S4D
		Nominal Size - Tons	10	10
Connections (sweat)		Liquid line - in. (o.d)	(1) 5/8	(2) 3/8
		Suction line - in. (o.d)	(1) 1-1/8	(2) 1-1/8
Refrigerant (R-410A)		Factory Charge	R-410A holding charge (2 lbs. per circuit)	
		No. of Circuits	1	2
	[1] Field charge (25 ft. line set)	Circuit 1	32 lbs. 0 oz. (includes holding charge)	12 lbs. 0 oz. (includes holding charge)
		Circuit 2	- - -	12 lbs. 0 oz. (includes holding charge)
Compressor			(1) Two Stage Scroll	(2) Single Stage Scroll
Condenser Coil		Net face area - sq. ft. Outer coil	29.3	29.3
		Inner coil	28.4	28.4
		Tube diameter - in. & no. of rows	3/8 - 2	3/8 - 2
		Fins per inch	20	20
Condenser Fan(s)		Diameter - in. & no. of blades	(2) 24 - 3	(2) 24 - 3
		Motor hp	(2) 1/3	(2) 1/3
		Total air volume - cfm	8300	8300
		Rpm	1075	1075
		Watts	830	830

ELECTRICAL DATA

		Line voltage data - 60 hz - 3 phase	208/230V	460V	575V	208/230V	460V	575V
		[2] Maximum Overcurrent Protection (amps)	80	30	25	40	20	15
		[3] Minimum circuit ampacity	47	21	16	30	16	13
Compressor		No. of Compressors	1	1	1	2	2	2
		Rated load amps (total)	34.6	14.8	11.1	12 (24)	6.3 (12.6)	4.9 (9.8)
		Locked rotor amps (total)	240	130	94	90 (180)	60 (120)	41 (82)
Condenser Fan Motor (1 phase)		No. of motors	2	2	2	2	2	2
		Full load amps (total)	1.7 (3.4)	0.8 (1.6)	1 (2)	1.7 (3.4)	0.8 (1.6)	1 (2)
		Locked rotor amps (total)	4.3 (8.6)	2.4 (4.8)	1.9 (3.8)	4.3 (8.6)	2.4 (4.8)	1.9 (3.8)

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

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

[1] Field provided charge with 25 ft. line set. 2 HACR type circuit breaker or fuse.

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

SPECIFICATIONS - 12.5 - 20 TON

General Data		Model No.	ELS150S4D	ELS180S4D	ELS240S4D
		Nominal Size - Tons	**12.5**	**15**	**20**
Connections (sweat)		Liquid line - in. (o.d)	(2) 3/8	(2) 5/8	(2) 5/8
		Suction line - in. (o.d)	(2) 1-1/8	(2) 1-1/8	(2) 1-1/8
Refrigerant (R-410A)		Factory Charge	R-410A holding charge (2 lbs. per circuit)		
		No. of Circuits	2	2	2
	[1] Field charge (25 ft. line set)	Circuit 1	15 lbs. 0 oz. (includes holding charge)	24 lbs. 0 oz. (includes holding charge)	22 lbs. 4 oz. (includes holding charge)
		Circuit 2	15 lbs. 0 oz. (includes holding charge)	24 lbs. 0 oz. (includes holding charge)	23 lbs. 3 oz. (includes holding charge)
Compressor			(2) Single Stage Scroll	(2) Single Stage Scroll	(2) Single Stage Scroll
Condenser Coil		Net face area - sq. ft. Outer coil	34.2	58.7	58.7
		Inner coil	33.3	57.7	57.7
		Tube diameter - in. & no. of rows	3/8 - 2	3/8 - 2	3/8 - 2
		Fins per inch	20	20	20
Condenser Fan(s)		Diameter - in. & no. of blades	(2) 24 - 4	(4) 24 - 3	(4) 24 - 3
		Motor hp	(2) 1/2	(4) 1/3	(4) 1/3
		Total air volume - cfm	10,300	16,600	16,600
		Rpm	1075	1075	1075
		Watts	1130	1660	1660

ELECTRICAL DATA

	Line voltage data - 60 hz - 3 phase	208/230V	460V	575V	208/230V	460V	575V	208/230V	460V	575V
	[2] Maximum Overcurrent Protection (amps)	60	25	25	80	40	30	90	50	40
	[3] Minimum circuit ampacity	50	21	20	63	31	25	70	36	30
Compressor	No. of Compressors	2	2	2	2	2	2	2	2	2
	Rated load amps (total)	19.6 (39.2)	8.2 (16.4)	6.6 (13.2)	25 (50)	12.2 (24.4)	9 (18)	28.2 (56.4)	14.7 (29.4)	11.3 (22.6)
	Locked rotor amps (total)	136 (272)	66 (132)	55 (110)	164 (328)	100 (200)	78 (156)	240 (480)	130 (260)	93.7 (187.4)
Condenser Fan Motor (1 phase)	No. of motors	2	2	2	4	4	4	4	4	4
	Full load amps (total)	3 (6)	1.5 (3)	1.2 (2.4)	1.7 (6.8)	0.8 (3.2)	1 (4)	1.7 (6.8)	0.8 (3.2)	1 (4)
	Locked rotor amps (total)	6 (12)	3 (6)	2.9 (5.8)	4.3 (17.2)	2.4 (9.6)	1.9 (7.6)	4.3 (17.2)	2.4 (9.6)	1.9 (7.6)

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

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

[1] Field provided charge with 25 ft. line set. 2 HACR type circuit breaker or fuse.

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

WEIGHT DATA

Model No.	Net		Shipping	
	lbs.	kg	lbs.	kg
072S4S	318	144	338	153
090S4S	345	157	365	166
120S4S	452	205	477	216
120S4D	480	218	505	229
150S4D	535	243	560	254
180S4D	775	352	800	363
240S4D	832	377	857	389

OPTIONS / ACCESSORIES

COMBINED COIL/HAIL GUARDS

T2GARD20L-1	40	18	45	20
T2GARD20M-1	45	20	50	23
T2GARD21M-1	45	20	50	23
T2GARD20N-1-	90	41	100	45

OPTIONS / ACCESSORIES

Item		Catalog No.	ELS 072 S4S	ELS 090 S4S	ELS 120 S4S	ELS 120 S4D	ELS 150 S4D	ELS 180 S4D	ELS 240 S4D
CABINET									
Combined Coil/Hail Guards	T2GARD51L-1	**13T29**	X	X					
	T2GARD51M11	**13T30**			X	X			
	T2GARD51M21	**13T32**					X		
	T2GARD51N-1	**13T37**						X	X
Corrosion Protection		Factory	O	O	O	O	O	O	O
CONTROLS									
BACnet® Module	A0CTRL31LS1	**17A08**	X	X	X	X	X	X	X
BACnet® Sensor with Display	K0SNSR01FF1	**97W23**	X	X	X	X	X	X	X
BACnet® Sensor without Display	K0SNSR00FF1	**97W24**	X	X	X	X	X	X	X
Low Ambient Control (0ºF)	A2CWKT01LM1-	**16F18**	X	X					
	A2CWKT04M-1-	**16F26**			X				
	A2CWKT02M-1-	**16F24**				X	X		
	A2CWKT03N-1-	**16F25**						X	X
ELECTRICAL									
GFI Service Outlets	15 amp non-powered, field-wired (208/230V, 460V only) LTAGFIK10/15/15	**74M70**	X	X	X	X	X	X	X
	20 amp non-powered, field-wired (575V only) C1GFCI20FF1	**67E01**	X	X	X	X	X	X	X
INDOOR AIR QUALITY									
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	**77N39**	X	X	X	X	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display	C0SNSR52AE1L	**87N53**	X	X	X	X	X	X	X
Sensor - Black plastic case with LCD display, rated for plenum mounting	C0SNSR51AE1L	**87N52**	X	X	X	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	**87N54**	X	X	X	X	X	X	X
CO_2 Sensor Duct Mounting Kit	C0MISC19AE1-	**85L43**	X	X	X	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO_2 sensor (77N39)	C0MISC16AE1-	**90N43**	X	X	X	X	X	X	X

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

O - Factory Installed with extended lead time.

X - Field Installed

AHRI SYSTEM MATCHES

Model	Cooling Btuh	EER	IEER	Air Handler	Expansion Device	AHRI Reference
ELS072S4S	71,000	12.0	16.0	ELA072S4S	Factory TXV	201753420
ELS090S4S	89,000	11.2	14.4	ELA090S4D	Factory TXV	201753421
ELS120S4S	115,000	11.2	14.4	ELA120S4D	Factory TXV	201753423
ELS120S4D	115,000	11.2	12.9	ELA120S4D	Factory TXV	201753422
ELS150S4D	136,000	11.0	12.4	ELA150S4D	Factory TXV	201753424
ELS180S4D	178,000	11.0	12.4	ELA180S4D	Factory TXV	201753975
ELS240S4D	232,000	11.0	12.4	ELA240S4D	Factory TXV	201753426

NOTES - Units with capacity of 65,000 Btuh or greater are AHRI Certified to AHRI Standard 340/360: 95°F outdoor air temperature, 80°F db/67°F wb entering evaporator air (minimum external duct static pressure) with 25 ft. of connecting refrigerant lines.

SOUND DATA

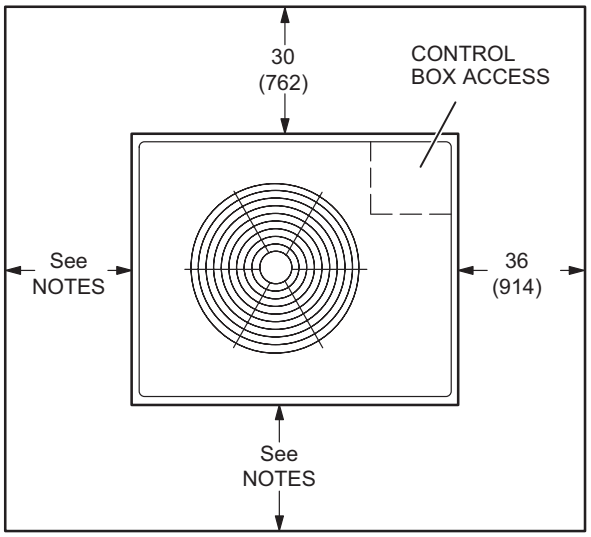
[1] Unit Model No.	Octave Band Linear Sound Power Levels dB, re 10^{-12} Watts Center Frequency - HZ							[1] Sound Rating Number (dB)
	125	250	500	1000	2000	4000	8000	
ELS072S4S	65	68	73	76	72	68	63	81
ELS090S4S	64	69	73	77	74	70	63	81
ELS120S4S	70	77	82	81	77	75	71	86
ELS120S4D	71	77	80	80	77	72	67	85
ELS150S4D	68	77	80	82	78	73	65	86
ELS180S4D	73	80	83	83	79	74	66	88
ELS240S4D	73	80	85	84	80	78	74	89

NOTE - the octave sound power data does not include tonal correction.

[1] Tested according to AHRI Standard 270 test conditions.

UNIT CLEARANCES - INCHES (MM)

ELS072 and ELS090



NOTES:

Clearance to one of the remaining two sides may be 12 in. (305 mm) and the final side may be 6 in. (152 mm).

A clearance of 24 in. (610 mm) must be maintained between two units.

48 in. (1219 mm) clearance required on top of unit.

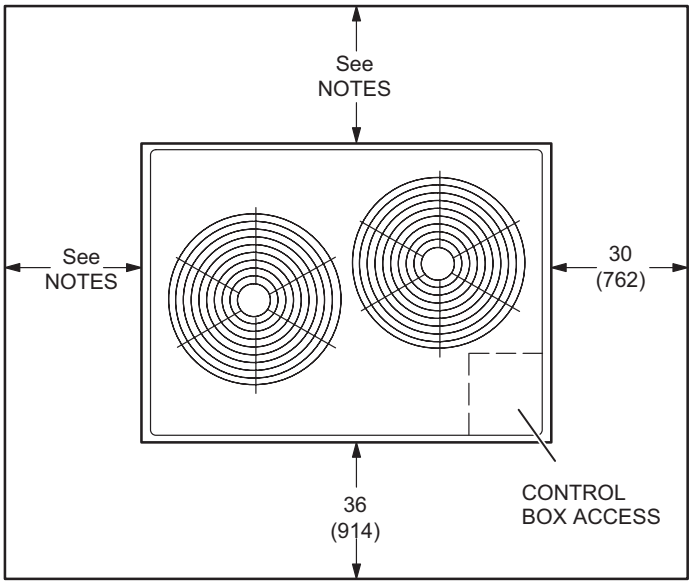
ELS120 and ELS150

NOTES:

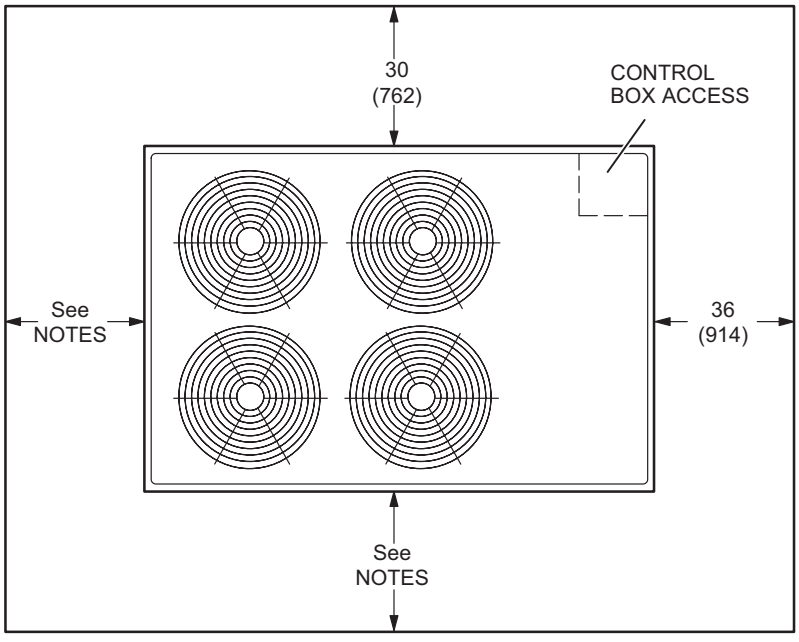
Clearance to one of the remaining two sides may be 12 in. (305 mm) and the final side may be 6 in. (152 mm).

A clearance of 24 in. (610 mm) must be maintained between two units.

48 in. (1219 mm) clearance required on top of unit.



ELS180 and ELS240



NOTES:

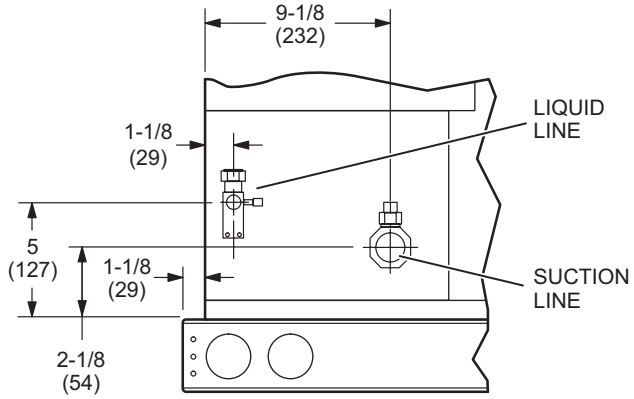
Clearance to one of the remaining two sides may be 12 in. (305 mm) and the final side may be 6 in. (152 mm).

A clearance of 24 in. (610 mm) must be maintained between two units.

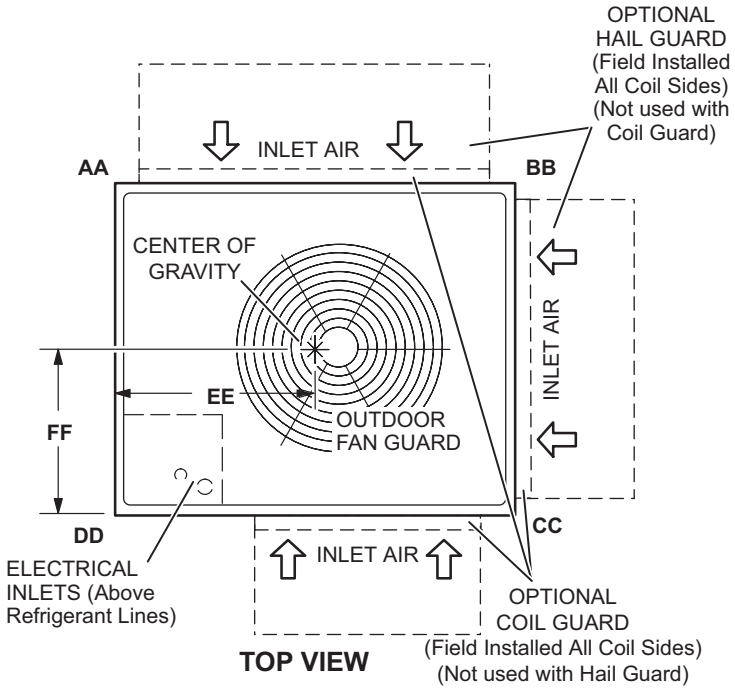
48 in. (1219 mm) clearance required on top of unit.

DIMENSIONS - INCHES (MM) - ELS072 AND ELS090

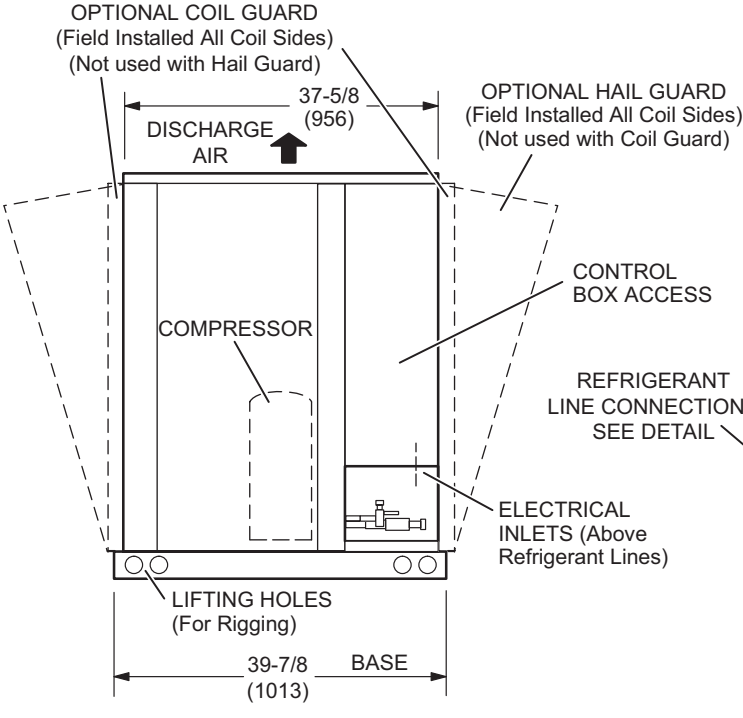
Model No.	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
ELS072S4S	66	30	73	33	97	44	82	37	23-1/4	591	19-1/4	489
ELS090S4S	75	34	89	40	112	51	88	40	25	635	20-1/4	514



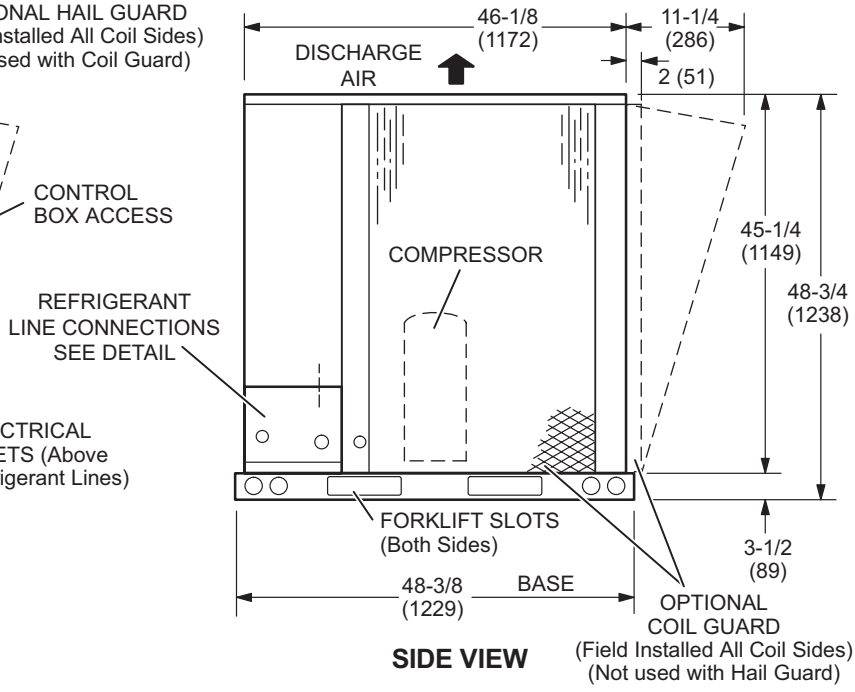
REFRIGERANT LINE CONNECTIONS DETAIL



TOP VIEW



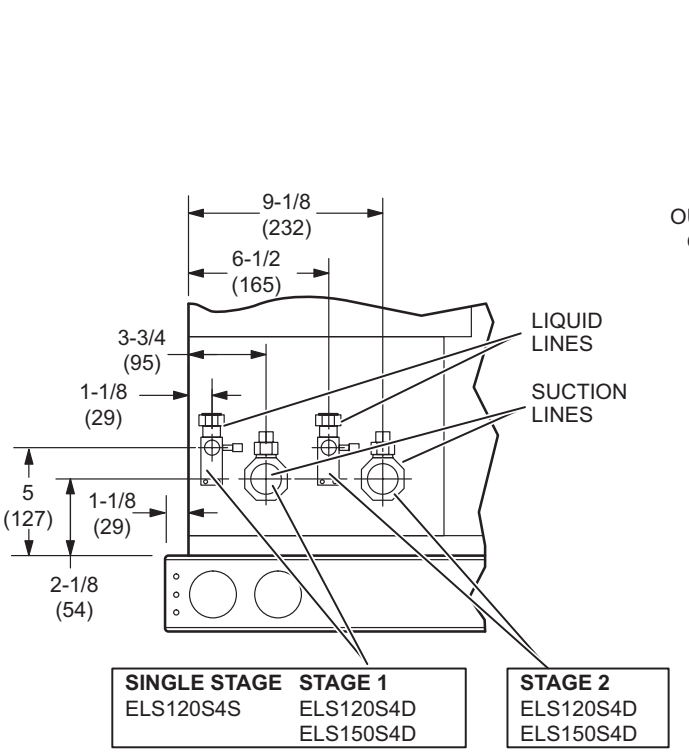
FRONT VIEW



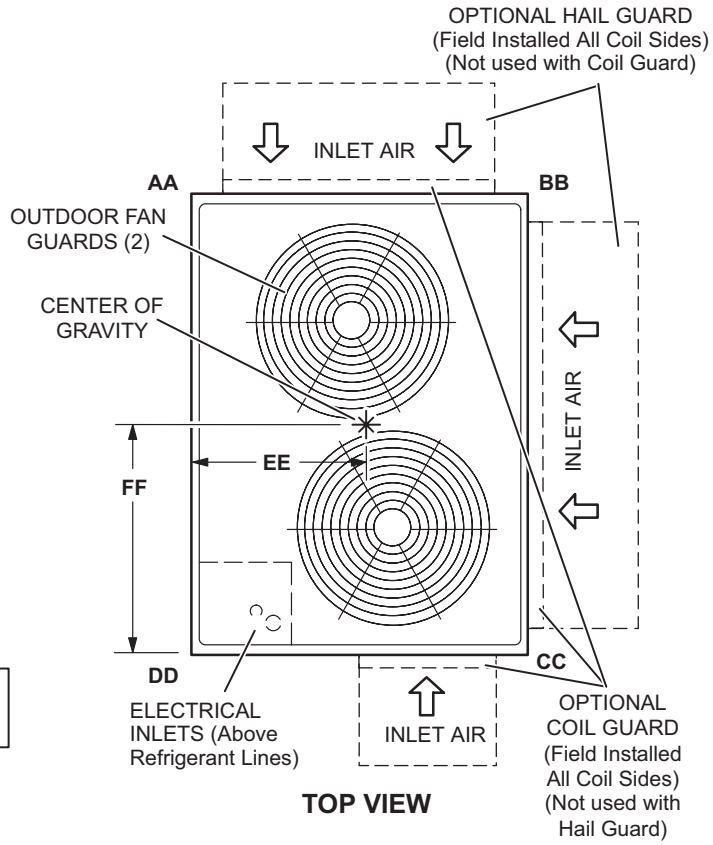
SIDE VIEW

DIMENSIONS - INCHES (MM) - ELS120 AND ELS150

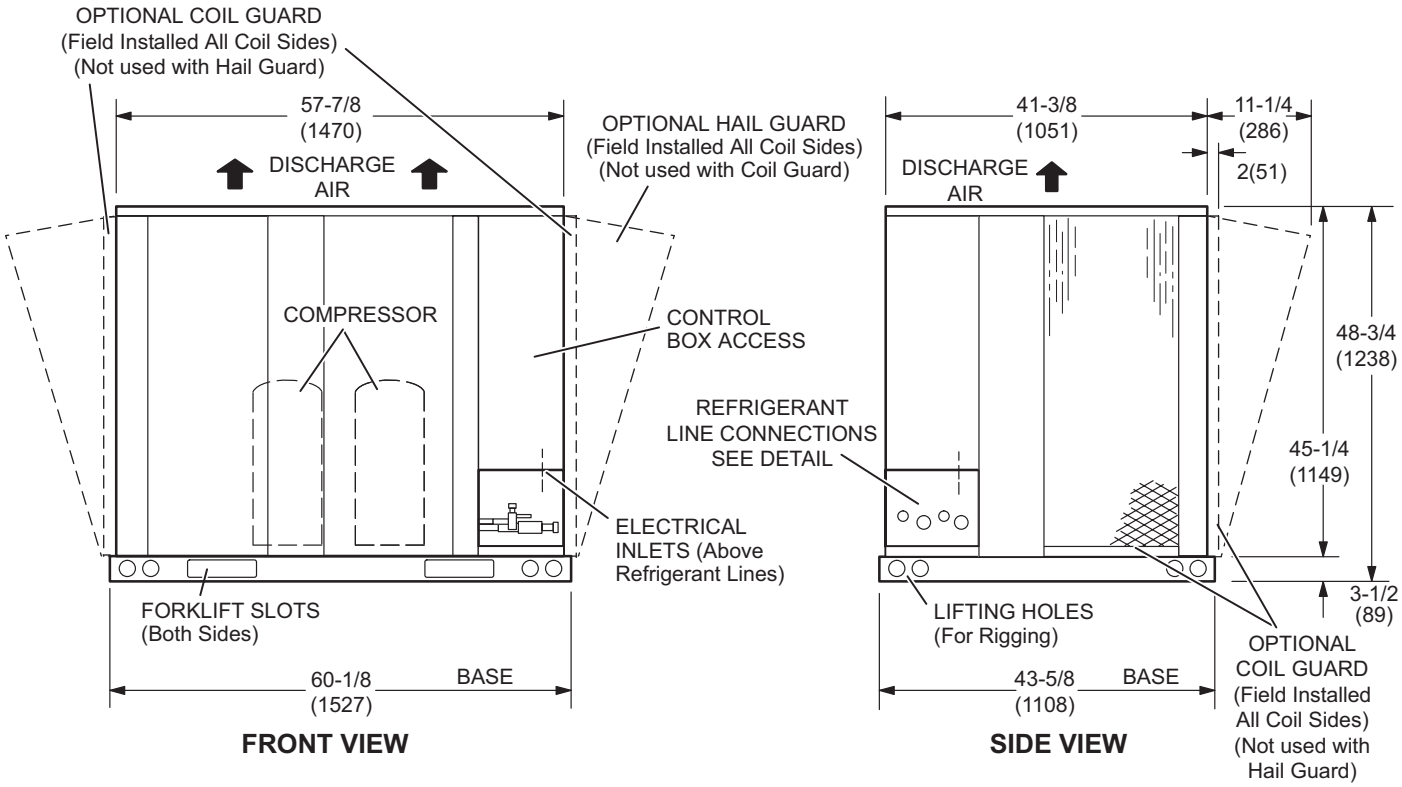
Model No.	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
ELS120S4S	130	59	124	56	107	49	111	50	20-1/2	521	33-1/2	851
ELS120S4D	122	55	119	54	127	58	131	59	21	533	28-1/2	724
ELS150S4D	144	66	132	60	133	60	145	66	19	483	30	762



REFRIGERANT LINE CONNECTIONS DETAIL



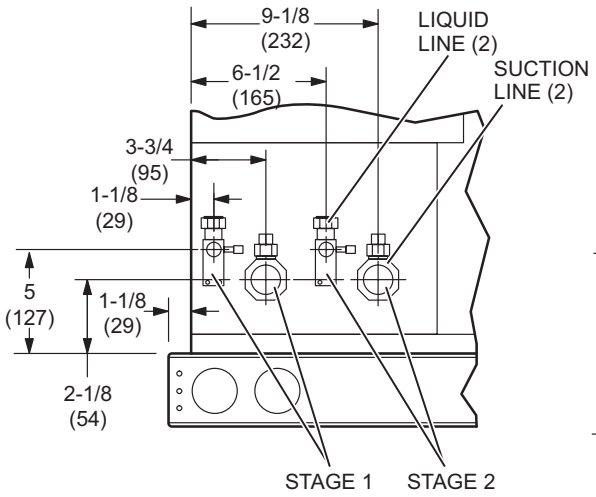
TOP VIEW



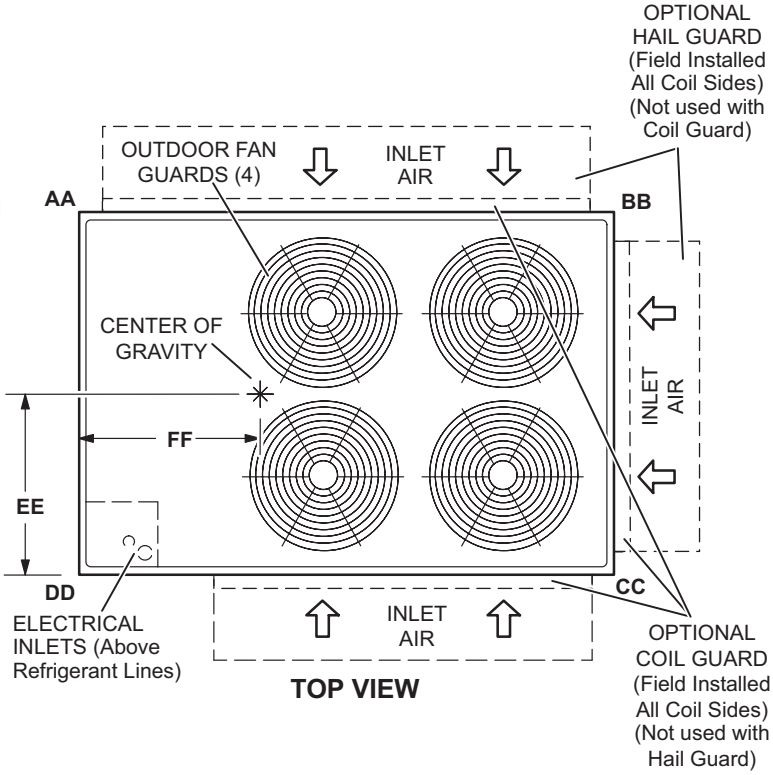
FRONT VIEW **SIDE VIEW**

DIMENSIONS - INCHES (MM) - ELS180 AND ELS240

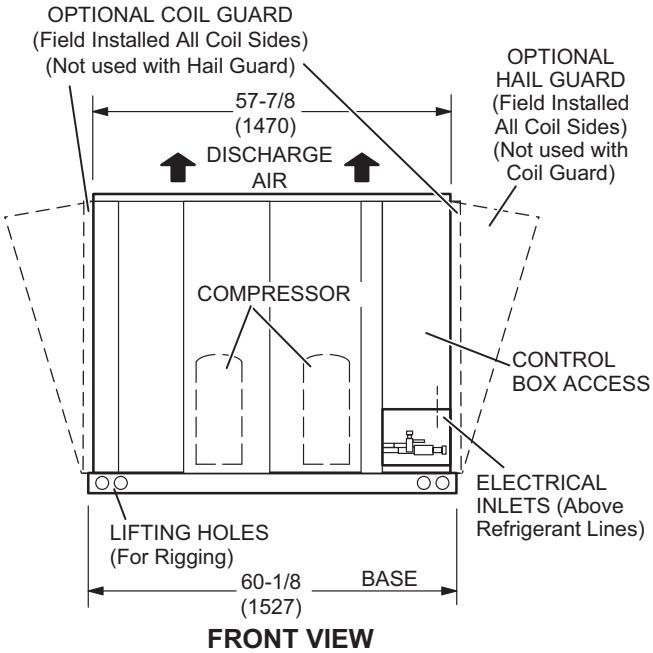
Model No.	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
ELS180S4D	181	82	177	81	215	98	221	100	29	737	38	965
ELS240S4D	192	87	189	86	232	105	238	108	29	737	37-1/2	953



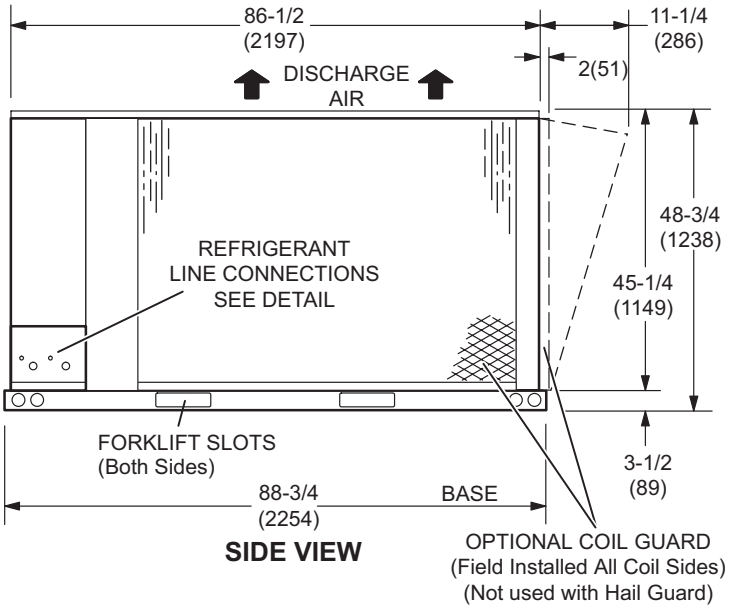
REFRIGERANT LINE CONNECTIONS DETAIL



TOP VIEW



FRONT VIEW



SIDE VIEW

RATINGS

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

ELS072S4S + ELA072S4S - PART LOAD

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1280	54.2	2.17	0.68	0.8	0.92	51.6	2.54	0.69	0.82	0.95	48.6	2.95	0.71	0.84	0.98	45.4	3.42	0.72	0.87	1
	1600	57.7	2.15	0.71	0.86	0.99	54.8	2.53	0.73	0.88	1	51.6	2.95	0.75	0.91	1	48.1	3.42	0.77	0.95	1
	1920	60.2	2.15	0.75	0.92	1	57.1	2.53	0.77	0.94	1	53.8	2.95	0.8	0.98	1	50.2	3.41	0.83	1	1
67°F	1280	57.7	2.15	0.54	0.65	0.76	55.1	2.53	0.55	0.66	0.78	52.2	2.95	0.56	0.68	0.8	48.9	3.42	0.57	0.69	0.83
	1600	61.4	2.14	0.56	0.69	0.81	58.6	2.52	0.57	0.7	0.84	55.4	2.95	0.58	0.72	0.87	51.8	3.41	0.6	0.74	0.9
	1920	64.3	2.14	0.59	0.72	0.87	61.2	2.52	0.6	0.74	0.9	57.8	2.94	0.61	0.77	0.93	53.9	3.41	0.62	0.8	0.97
71°F	1280	61.3	2.14	0.42	0.53	0.62	58.6	2.53	0.42	0.53	0.64	55.6	2.94	0.43	0.54	0.65	52.2	3.41	0.43	0.55	0.67
	1600	65.3	2.13	0.43	0.55	0.66	62.3	2.52	0.43	0.56	0.68	59	2.94	0.44	0.57	0.69	55.3	3.41	0.44	0.58	0.71
	1920	68.3	2.13	0.44	0.57	0.7	65.2	2.52	0.44	0.58	0.71	61.7	2.94	0.45	0.59	0.74	57.8	3.41	0.45	0.61	0.76

ELS072S4S + ELA072S4S - FULL LOAD

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1920	67.9	4.17	0.73	0.86	0.98	64.8	4.73	0.74	0.88	1	61.5	5.39	0.76	0.9	1	58	6.12	0.78	0.93	1
	2400	71.2	4.21	0.77	0.92	1	67.9	4.78	0.79	0.95	1	64.4	5.43	0.81	0.97	1	60.8	6.16	0.83	0.99	1
	2880	73.8	4.24	0.82	0.98	1	70.4	4.81	0.84	1	1	67	5.46	0.86	1	1	63.7	6.2	0.89	1	1
67°F	1920	72	4.22	0.58	0.7	0.82	68.8	4.79	0.59	0.72	0.84	65.4	5.44	0.59	0.73	0.87	61.7	6.17	0.61	0.75	0.89
	2400	75.5	4.27	0.61	0.75	0.89	72.1	4.83	0.61	0.77	0.91	68.6	5.49	0.63	0.79	0.94	64.6	6.22	0.64	0.81	0.97
	2880	78.3	4.3	0.63	0.8	0.95	74.6	4.87	0.65	0.82	0.97	70.7	5.52	0.66	0.84	0.99	66.5	6.24	0.68	0.87	1
71°F	1920	76	4.27	0.44	0.56	0.68	72.8	4.85	0.44	0.57	0.69	69.3	5.5	0.45	0.58	0.71	65.5	6.23	0.45	0.59	0.72
	2400	79.9	4.33	0.45	0.59	0.72	76.2	4.89	0.46	0.6	0.74	72.4	5.54	0.46	0.61	0.76	68.6	6.28	0.47	0.63	0.78
	2880	82.7	4.36	0.46	0.62	0.77	79	4.94	0.47	0.63	0.79	75	5.59	0.48	0.65	0.81	70.7	6.32	0.48	0.67	0.84

ELS090S4S + ELA090S4D - PART LOAD

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1600	65	2.76	0.71	0.84	0.96	62.1	3.23	0.73	0.86	0.98	58.9	3.75	0.74	0.88	1	55.5	4.33	0.76	0.91	1
	2000	68.9	2.76	0.76	0.9	1	65.7	3.23	0.77	0.92	1	62.2	3.75	0.79	0.95	1	58.6	4.33	0.82	0.98	1
	2400	72	2.75	0.8	0.96	1	68.5	3.22	0.82	0.98	1	65	3.74	0.85	1	1	61.8	4.32	0.88	1	1
67°F	1600	69.7	2.76	0.57	0.68	0.8	66.7	3.23	0.57	0.7	0.82	63.4	3.75	0.58	0.71	0.84	59.8	4.33	0.59	0.73	0.87
	2000	73.8	2.75	0.59	0.73	0.86	70.6	3.22	0.6	0.74	0.89	66.8	3.74	0.61	0.76	0.91	63	4.32	0.63	0.79	0.94
	2400	76.9	2.75	0.62	0.77	0.92	73.2	3.22	0.63	0.8	0.95	69.4	3.74	0.64	0.82	0.98	65.3	4.32	0.66	0.85	1
71°F	1600	74.6	2.75	0.44	0.55	0.66	71.4	3.22	0.44	0.56	0.67	67.9	3.74	0.44	0.56	0.68	64.1	4.32	0.44	0.57	0.7
	2000	78.9	2.74	0.44	0.57	0.7	75.5	3.21	0.45	0.58	0.72	71.6	3.74	0.45	0.6	0.73	67.6	4.32	0.46	0.61	0.76
	2400	82.1	2.74	0.46	0.6	0.75	78.3	3.21	0.46	0.61	0.77	74.4	3.74	0.47	0.63	0.79	70.2	4.32	0.48	0.65	0.82

ELS090S4S + ELA090S4D - FULL LOAD

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2400	87.5	5.87	0.73	0.87	0.99	83.7	6.49	0.75	0.88	1	79.4	7.18	0.76	0.91	1	75	7.93	0.78	0.93	1
	3000	92.2	5.98	0.78	0.93	1	87.9	6.59	0.8	0.95	1	83.4	7.28	0.82	0.98	1	78.6	8.04	0.84	1	1
	3600	95.6	6.06	0.83	0.99	1	91.4	6.69	0.85	1	1	87.3	7.38	0.87	1	1	82.6	8.15	0.9	1	1
67°F	2400	93.5	6.01	0.58	0.71	0.83	89.3	6.63	0.59	0.72	0.85	84.8	7.32	0.6	0.74	0.87	79.7	8.08	0.61	0.75	0.9
	3000	97.7	6.11	0.61	0.76	0.9	93.3	6.73	0.62	0.77	0.92	88.3	7.41	0.63	0.79	0.95	83.2	8.17	0.65	0.82	0.98
	3600	101.2	6.19	0.64	0.81	0.96	96.4	6.81	0.65	0.82	0.98	91.4	7.49	0.67	0.85	1	86.2	8.25	0.68	0.88	1
71°F	2400	99.2	6.15	0.44	0.56	0.68	94.8	6.77	0.44	0.57	0.69	90	7.45	0.45	0.58	0.71	84.9	8.21	0.45	0.59	0.73
	3000	103.9	6.26	0.45	0.59	0.73	99	6.87	0.46	0.6	0.75	93.9	7.56	0.46	0.62	0.77	88.4	8.3	0.47	0.63	0.79
	3600	107.2	6.34	0.47	0.63	0.78	102	6.95	0.48	0.64	0.8	96.8	7.64	0.48	0.66	0.82	91	8.39	0.49	0.67	0.85

RATINGS

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

ELS120S4S + ELA120S4D - PART LOAD

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2240	88.8	3.53	0.72	0.84	0.97	84.9	4.16	0.73	0.86	0.99	80.1	4.87	0.75	0.89	1	74.3	5.67	0.78	0.93	1
	2800	93.5	3.49	0.77	0.91	1	89.7	4.12	0.78	0.93	1	84.5	4.83	0.8	0.96	1	78.5	5.63	0.83	0.99	1
	3360	97	3.48	0.81	0.98	1	93.2	4.1	0.83	0.99	1	88.6	4.79	0.85	1	1	83.3	5.58	0.88	1	1
67°F	2240	94.5	3.49	0.57	0.69	0.81	90.5	4.11	0.58	0.7	0.83	85.7	4.81	0.59	0.72	0.85	80	5.61	0.6	0.75	0.88
	2800	99.1	3.46	0.6	0.74	0.88	95.5	4.08	0.61	0.76	0.9	90.5	4.79	0.61	0.78	0.92	84	5.58	0.64	0.8	0.96
	3360	102.5	3.44	0.63	0.79	0.95	99.1	4.06	0.64	0.81	0.96	93.7	4.76	0.65	0.82	0.99	87.2	5.54	0.67	0.85	1
71°F	2240	100.2	3.46	0.44	0.56	0.67	96.4	4.07	0.43	0.55	0.67	91.9	4.77	0.44	0.58	0.69	85.7	5.56	0.45	0.58	0.71
	2800	104.8	3.43	0.45	0.59	0.71	101.2	4.04	0.45	0.59	0.73	96.1	4.74	0.46	0.6	0.75	90	5.53	0.46	0.62	0.77
	3360	107.9	3.42	0.46	0.62	0.77	104.6	4.02	0.46	0.63	0.78	99.4	4.72	0.47	0.64	0.8	93.2	5.51	0.48	0.66	0.83

ELS120S4S + ELA120S4D - FULL LOAD

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	112.6	7.39	0.73	0.87	0.99	107.1	8.19	0.74	0.88	1	101.5	9.15	0.76	0.91	1	94.6	10.21	0.78	0.94	1
	4000	118.1	7.46	0.78	0.93	1	112.4	8.27	0.8	0.96	1	106.1	9.22	0.82	0.98	1	99.6	10.31	0.85	1	1
	4800	122.5	7.53	0.83	0.99	1	116.9	8.35	0.85	1	1	111.1	9.3	0.88	1	1	104.6	10.4	0.91	1	1
67°F	3200	119.5	7.48	0.58	0.7	0.83	114.2	8.31	0.59	0.72	0.85	107.9	9.25	0.59	0.73	0.87	100.9	10.34	0.61	0.76	0.9
	4000	125.5	7.57	0.61	0.76	0.9	119.4	8.39	0.62	0.77	0.92	112.8	9.33	0.63	0.79	0.95	105.2	10.39	0.65	0.82	0.98
	4800	129.6	7.64	0.64	0.81	0.96	123.2	8.46	0.65	0.83	0.98	116.3	9.39	0.67	0.85	1	108.8	10.46	0.68	0.88	1
71°F	3200	127	7.59	0.44	0.56	0.68	121.3	8.42	0.45	0.57	0.69	114.9	9.37	0.45	0.58	0.71	107.7	10.43	0.45	0.6	0.74
	4000	133	7.69	0.45	0.59	0.73	126.9	8.52	0.46	0.6	0.75	119.8	9.45	0.46	0.62	0.77	112	10.52	0.47	0.64	0.8
	4800	137.1	7.75	0.47	0.63	0.79	130.8	8.57	0.47	0.64	0.8	123.6	9.51	0.48	0.66	0.83	115.3	10.58	0.49	0.68	0.86

RATINGS

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

ELS120S4D + ELA120S4D - PART LOAD (1 Compressor Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2240	53.7	2.75	0.63	0.75	0.87	51.4	3.14	0.64	0.76	0.89	49	3.54	0.65	0.78	0.91	46.3	3.95	0.66	0.8	0.94
	2800	57.4	2.78	0.66	0.8	0.94	54.9	3.16	0.67	0.82	0.96	52.1	3.55	0.69	0.84	0.99	49.3	3.97	0.71	0.87	1
	3360	60.2	2.8	0.7	0.86	1	57.6	3.18	0.71	0.88	1	54.6	3.56	0.73	0.91	1	51.6	3.99	0.76	0.94	1
67°F	2240	57.6	2.78	0.51	0.61	0.7	55.2	3.16	0.52	0.62	0.72	52.7	3.55	0.52	0.63	0.74	49.9	3.97	0.53	0.64	0.76
	2800	61.6	2.8	0.53	0.64	0.76	58.9	3.19	0.53	0.65	0.78	56	3.57	0.54	0.66	0.8	53.1	4	0.55	0.68	0.82
	3360	64.5	2.82	0.55	0.67	0.81	61.7	3.2	0.55	0.68	0.84	58.7	3.59	0.56	0.7	0.86	55.5	4.01	0.57	0.72	0.89
71°F	2240	61.5	2.8	0.4	0.49	0.58	59.1	3.19	0.4	0.5	0.59	56.4	3.58	0.41	0.5	0.6	53.6	3.99	0.41	0.51	0.61
	2800	65.8	2.83	0.41	0.51	0.61	62.9	3.21	0.41	0.52	0.62	60.1	3.6	0.41	0.52	0.63	56.9	4.02	0.42	0.53	0.65
	3360	68.8	2.85	0.41	0.53	0.64	66	3.23	0.42	0.54	0.66	62.8	3.61	0.42	0.55	0.67	59.6	4.04	0.42	0.56	0.69

ELS120S4D + ELA120S4D - FULL LOAD (2 Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	111.8	7.11	0.75	0.89	1	106	7.94	0.76	0.91	1	100	8.92	0.78	0.94	1	93.7	10.08	0.81	0.97	1
	4000	117.4	7.14	0.8	0.96	1	111.6	7.97	0.82	0.98	1	105.6	8.96	0.85	1	1	99.9	10.14	0.88	1	1
	4800	122.3	7.17	0.85	1	1	117	8.02	0.88	1	1	111.6	9.01	0.91	1	1	105.7	10.21	0.94	1	1
67°F	3200	119.7	7.15	0.59	0.72	0.85	113.7	8	0.6	0.74	0.87	107.6	8.97	0.61	0.76	0.9	101	10.14	0.62	0.78	0.93
	4000	125.4	7.18	0.62	0.78	0.93	119.1	8.03	0.63	0.79	0.95	112.7	9.02	0.64	0.82	0.98	105.7	10.2	0.66	0.85	1
	4800	129.5	7.21	0.65	0.83	0.98	123.2	8.06	0.67	0.85	1	116.3	9.06	0.68	0.88	1	109.1	10.25	0.7	0.91	1
71°F	3200	127.4	7.19	0.45	0.57	0.69	121.5	8.05	0.45	0.58	0.71	115.3	9.04	0.45	0.59	0.73	108.6	10.24	0.46	0.6	0.75
	4000	133.6	7.24	0.45	0.6	0.75	127.4	8.09	0.46	0.62	0.77	120.8	9.1	0.47	0.63	0.79	113.8	10.31	0.47	0.65	0.81
	4800	138	7.27	0.46	0.64	0.8	131.7	8.13	0.48	0.65	0.82	124.6	9.14	0.48	0.67	0.85	117.5	10.35	0.49	0.69	0.88

ELS150S4D + ELA150S4D - PART LOAD (1 Compressor Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2800	68.9	3.17	0.67	0.77	0.88	66.2	3.62	0.68	0.79	0.89	63.3	4.11	0.69	0.8	0.91	60.3	4.67	0.7	0.82	0.93
	3500	73.2	3.21	0.7	0.82	0.94	70.2	3.65	0.71	0.83	0.95	67	4.15	0.72	0.85	0.97	63.5	4.7	0.74	0.88	1
	4200	76.3	3.23	0.73	0.87	0.99	73.1	3.68	0.75	0.89	1	69.7	4.17	0.76	0.91	1	66	4.73	0.78	0.93	1
67°F	2800	73.2	3.21	0.54	0.64	0.74	70.3	3.65	0.55	0.65	0.75	67.3	4.14	0.55	0.66	0.76	64.1	4.71	0.56	0.67	0.78
	3500	77.7	3.25	0.56	0.68	0.79	74.5	3.69	0.57	0.69	0.8	71.2	4.19	0.57	0.7	0.82	67.6	4.74	0.58	0.71	0.84
	4200	81	3.28	0.58	0.71	0.84	77.7	3.72	0.59	0.72	0.85	73.9	4.21	0.6	0.74	0.87	70	4.77	0.61	0.75	0.9
71°F	2800	77.5	3.25	0.43	0.53	0.62	74.5	3.69	0.43	0.53	0.63	71.4	4.19	0.43	0.53	0.63	67.9	4.74	0.43	0.54	0.65
	3500	82.2	3.28	0.43	0.54	0.65	78.9	3.73	0.44	0.55	0.66	75.4	4.23	0.44	0.56	0.67	71.6	4.78	0.44	0.57	0.69
	4200	85.6	3.32	0.44	0.56	0.68	82.1	3.77	0.45	0.57	0.7	78.4	4.26	0.45	0.58	0.71	74.2	4.82	0.45	0.59	0.73

ELS150S4D + ELA150S4D - FULL LOAD (2 Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	4000	138	8.32	0.75	0.9	1	131.1	9.44	0.77	0.92	1	123.5	10.75	0.79	0.95	1	115.4	12.26	0.82	0.98	1
	5000	144.3	8.37	0.81	0.97	1	136.8	9.5	0.83	0.99	1	129.3	10.8	0.85	1	1	122	12.35	0.89	1	1
	6000	149.6	8.43	0.86	1	1	142.9	9.57	0.89	1	1	135.6	10.87	0.91	1	1	127.7	12.38	0.95	1	1
67°F	4000	146.8	8.4	0.59	0.73	0.86	139.3	9.52	0.6	0.74	0.88	131.5	10.82	0.61	0.76	0.91	122.6	12.33	0.63	0.79	0.94
	5000	152.7	8.46	0.63	0.78	0.94	145	9.59	0.64	0.8	0.96	136.7	10.88	0.66	0.83	0.99	127.4	12.38	0.67	0.86	1
	6000	157.4	8.51	0.66	0.84	0.99	149.1	9.63	0.67	0.87	1	140.2	10.92	0.69	0.89	1	130.6	12.42	0.72	0.93	1
71°F	4000	155.2	8.49	0.44	0.58	0.7	147.6	9.6	0.45	0.59	0.72	139.4	10.9	0.45	0.6	0.74	130.4	12.41	0.46	0.61	0.77
	5000	161.7	8.56	0.46	0.61	0.76	153.4	9.68	0.46	0.62	0.78	144.8	10.97	0.47	0.64	0.81	135.2	12.47	0.48	0.66	0.84
	6000	166.3	8.61	0.47	0.65	0.82	157.7	9.73	0.48	0.67	0.84	148.6	11.02	0.49	0.68	0.87	138.6	12.52	0.5	0.71	0.91

RATINGS

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

ELS180S4D + ELA180S4D - PART LOAD (1 Compressor Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	85.9	4.62	0.65	0.75	0.84	82.6	5.16	0.66	0.76	0.85	79	5.74	0.67	0.77	0.86	75.2	6.44	0.68	0.78	0.88
	4000	92.1	4.69	0.67	0.78	0.88	88.4	5.22	0.68	0.79	0.9	84.5	5.82	0.69	0.81	0.92	80.1	6.48	0.7	0.83	0.94
	4800	96.9	4.75	0.7	0.82	0.93	92.7	5.28	0.71	0.83	0.95	88.5	5.87	0.72	0.85	0.97	83.9	6.53	0.74	0.87	0.99
67°F	3200	91	4.68	0.54	0.63	0.71	87.5	5.2	0.54	0.63	0.72	83.7	5.81	0.54	0.64	0.73	79.8	6.47	0.55	0.65	0.75
	4000	97.5	4.75	0.55	0.65	0.75	93.7	5.28	0.55	0.66	0.76	89.5	5.87	0.56	0.67	0.77	85.1	6.55	0.56	0.68	0.79
	4800	102.3	4.82	0.56	0.67	0.78	98.5	5.35	0.57	0.68	0.8	93.9	5.93	0.57	0.7	0.82	89	6.6	0.58	0.71	0.84
71°F	3200	96	4.75	0.43	0.51	0.6	92.3	5.27	0.43	0.52	0.6	88.5	5.87	0.43	0.52	0.61	84.3	6.54	0.43	0.53	0.62
	4000	102.6	4.83	0.42	0.53	0.62	98.9	5.35	0.43	0.53	0.63	94.6	5.95	0.44	0.54	0.64	89.9	6.6	0.44	0.55	0.65
	4800	107.8	4.9	0.44	0.55	0.65	103.8	5.42	0.44	0.55	0.66	99.3	6	0.44	0.56	0.67	94.2	6.67	0.44	0.57	0.68

ELS180S4D + ELA180S4D - FULL LOAD (2 Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	4800	178.4	11.62	0.72	0.85	0.97	169.1	12.96	0.74	0.87	0.99	159.4	14.5	0.75	0.9	1	148.6	16.33	0.78	0.93	1
	6000	187.5	11.71	0.76	0.91	1	177.3	13.05	0.78	0.94	1	166.9	14.58	0.81	0.97	1	155.5	16.36	0.83	0.99	1
	7200	194.1	11.79	0.81	0.97	1	183.6	13.1	0.83	0.99	1	173	14.65	0.86	1	1	162.8	16.46	0.89	1	1
67°F	4800	189.3	11.75	0.57	0.7	0.81	179.6	13.08	0.58	0.71	0.84	169.6	14.62	0.59	0.73	0.86	158.6	16.39	0.61	0.75	0.89
	6000	199	11.85	0.6	0.74	0.88	188.6	13.16	0.61	0.76	0.9	177.6	14.7	0.62	0.78	0.93	165.6	16.47	0.64	0.81	0.96
	7200	205.9	11.93	0.63	0.78	0.94	194.8	13.25	0.64	0.81	0.96	183.3	14.78	0.65	0.83	0.99	170.7	16.55	0.67	0.87	1
71°F	4800	199.8	11.87	0.44	0.56	0.67	190	13.19	0.44	0.57	0.68	179.5	14.75	0.45	0.58	0.7	168.3	16.52	0.45	0.59	0.72
	6000	210.2	11.98	0.45	0.58	0.72	199.3	13.3	0.45	0.6	0.73	188.2	14.82	0.46	0.61	0.76	175.9	16.59	0.47	0.63	0.78
	7200	217.4	12.07	0.46	0.61	0.76	206.3	13.38	0.47	0.63	0.78	194.3	14.91	0.47	0.64	0.81	181.6	16.68	0.48	0.66	0.84

ELS240S4D + ELA240S4D - PART LOAD (1 Compressor Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	4500	116.8	5.77	0.66	0.76	0.86	112.8	6.38	0.66	0.76	0.87	108.4	7.08	0.67	0.77	0.88	103.5	7.89	0.67	0.78	0.88
	5500	123	5.86	0.66	0.78	0.88	118.4	6.46	0.67	0.78	0.89	113.7	7.15	0.67	0.79	0.89	108.2	7.94	0.68	0.8	0.89
	6500	127.5	5.92	0.67	0.8	0.89	122.4	6.52	0.67	0.8	0.88	117.2	7.2	0.68	0.81	0.88	111.6	8	0.68	0.82	0.87
67°F	4500	124.6	5.88	0.54	0.63	0.72	120.2	6.48	0.54	0.63	0.73	115.6	7.18	0.54	0.63	0.73	110.7	7.99	0.54	0.64	0.74
	5500	130.8	5.97	0.53	0.63	0.74	126.2	6.57	0.53	0.64	0.74	121.2	7.26	0.53	0.64	0.75	115.4	8.06	0.53	0.64	0.76
	6500	135.9	6.04	0.53	0.64	0.76	130.5	6.63	0.53	0.64	0.77	125	7.31	0.52	0.64	0.77	119.2	8.11	0.52	0.65	0.78
71°F	4500	132.4	5.99	0.44	0.52	0.6	127.7	6.59	0.43	0.52	0.6	122.9	7.29	0.43	0.52	0.61	117.6	8.09	0.42	0.52	0.61
	5500	138.8	6.08	0.41	0.51	0.6	133.8	6.68	0.41	0.51	0.61	128.5	7.38	0.4	0.51	0.61	122.9	8.18	0.4	0.51	0.61
	6500	143.9	6.16	0.39	0.51	0.61	138.5	6.76	0.39	0.5	0.61	132.7	7.45	0.38	0.5	0.62	126.5	8.23	0.38	0.5	0.62

ELS240S4D + ELA240S4D - FULL LOAD (2 Compressors Operating)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	6400	232.8	14.47	0.78	0.88	0.93	221.6	16.08	0.78	0.89	0.92	210.1	17.94	0.78	0.89	0.92	198.4	20.09	0.79	0.89	0.91
	8000	243	14.63	0.79	0.89	0.91	232.7	16.25	0.79	0.89	0.91	222.4	18.14	0.8	0.88	0.9	210.8	20.29	0.81	0.87	0.9
	9600	254.5	14.81	0.79	0.87	0.9	243.9	16.44	0.8	0.87	0.89	232.2	18.29	0.81	0.86	0.89	219.9	20.44	0.81	0.85	0.88
67°F	6400	248.4	14.7	0.61	0.74	0.85	236.6	16.3	0.6	0.75	0.86	224.2	18.13	0.6	0.75	0.86	211	20.28	0.6	0.76	0.87
	8000	257.7	14.85	0.59	0.75	0.87	245.7	16.46	0.59	0.76	0.87	232.1	18.29	0.59	0.77	0.86	217.9	20.38	0.59	0.78	0.86
	9600	264.8	14.96	0.58	0.77	0.86	251.7	16.55	0.58	0.77	0.85	237.9	18.39	0.57	0.78	0.84	222.7	20.49	0.57	0.78	0.83
71°F	6400	263.9	14.95	0.45	0.58	0.71	251.6	16.56	0.45	0.58	0.71	238.5	18.39	0.42	0.57	0.72	224.6	20.53	0.42	0.57	0.72
	8000	273.1	15.1	0.41	0.56	0.71	260.8	16.71	0.39	0.56	0.73	246.7	18.52	0.38	0.56	0.73	232.1	20.68	0.37	0.56	0.74
	9600	280.7	15.23	0.37	0.55	0.72	267	16.8	0.36	0.55	0.73	252.6	18.65	0.34	0.55	0.74	237.3	20.73	0.32	0.54	0.74

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REVISIONS

Sections	Description of Change
Specifications	Footnote updated to include note on Short Circuit Current Rating (SCCR).

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

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