

4SHP20LX

PRODUCT SPECIFICATIONS

UP TO 20 SEER
VARIABLE CAPACITY HEAT PUMP

FORM NO. 4SHP20LX-100 (10/2019)



COMMUNICATING THERMOSTAT ENABLED

INSTALLED BY THE BEST

- Specialized training is required for dealers offering the 20LX
- Installer training available through authorized distributors

COMPRESSOR

- Inverter-driven Scroll Compressor for true variable capacity operation, precision environmental control, and exceptional energy savings
- R410A refrigerant
- Heavy-duty compressor sound blanket for quiet operation
- Internally protected against high temperature motor overload conditions

CABINET

- Individual metal louvered panels remove easily for coil cleaning and service
- Specialized corner-mounted controls for easy service
- Baked polyester paint finished over galvanized steel for maximum durability
- Removable PVC coated wire fan discharge grill
- Removable service panel for internal access

COILS

- Enhanced tube-and-fin coil design featuring MHT™ Technology
- Raised coil prevents debris from impeding airflow

DESIGN

- Designed to perform in temperatures up to 125°F
- Designed to perform in temperatures down to 0°F

COMPONENTS

- 45-degree offset gauge ports for easy service
- Service valves positioned for quick installation and service
- Variable speed condenser fan motor
- Swept wing fan blade for quiet operation
- Factory installed crankcase heater
- Factory installed TXV for excellent refrigeration control
- Factory installed high and low pressure switches
- Thread-on pressure switches for simple, quick service
- Fan orifice for smoother airflow and sound level reduction
- Specialized sensors monitor ambient, liquid line, and coil temperatures for precision system control
- Charged for 15 feet of line set
- Discharge muffler for quiet operation
- Demand defrost for increased energy efficiency
- Quiet Shift™ capable to reduce noise during defrost
- Requires Comfort Sync™ thermostat and a Comfort Sync enabled matching indoor unit

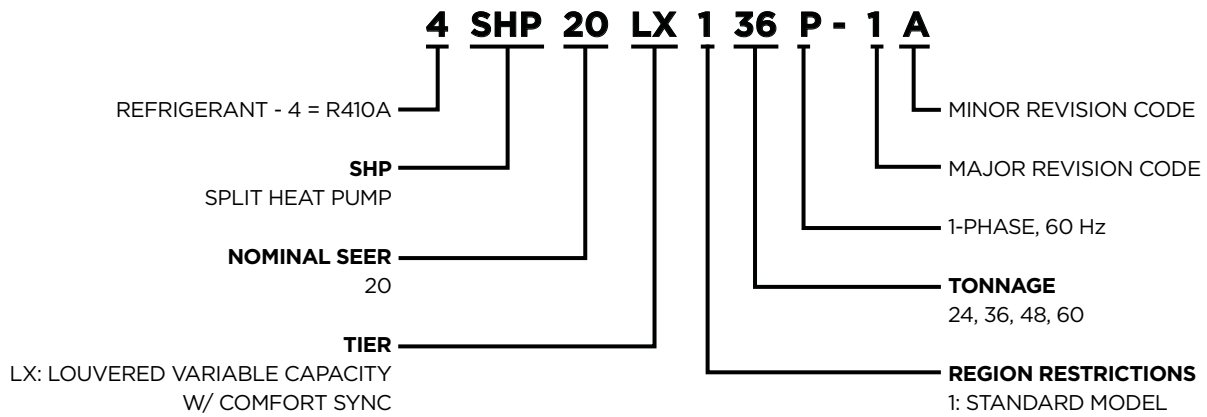
WARRANTY

- 10 year limited warranty on compressor
- 10 year limited warranty on all parts, extended warranty available

**Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults to 5-year coverage. Lifetime limited heat exchanger warranty applies to registered equipment only (Standard 20 years with no online registration). See full warranty at www.alliedair.com for terms, conditions and exclusions.*



MODEL NUMBER GUIDE



ELECTRICAL AND PHYSICAL DATA

Model	Voltage/Hz/Phase	Voltage Range	Min. Circuit Amp.	Max. Over Current Device (amps)	Compressor		Outdoor Fan Motor			Weight (lbs.)
					Rated Load (amps)	Locked Rotor (amps)	Rated Load (amps)	Rated HP	Nom. RPM	
4SHP20LX124P-1	208-230/60/1	197-253	19.1	30	13.0	13	2.8	1/3	VAR. SPD.	243
4SHP20LX136P-1	208-230/60/1	197-253	20.8	35	14.4	13	2.8	1/3	VAR. SPD.	245
4SHP20LX148P-1	208-230/60/1	197-253	29.3	50	21.2	20	2.8	1/3	VAR. SPD.	287
4SHP20LX160P-1	208-230/60/1	197-253	34.9	60	25.7	20	2.8	1/3	VAR. SPD.	321

Note:

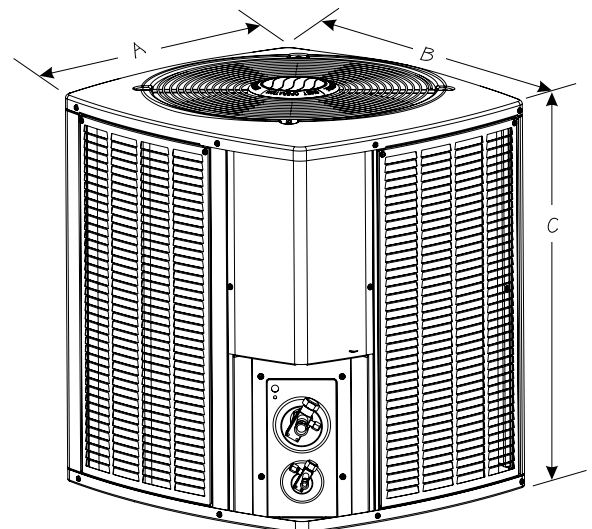
Weights listed are unit weights with packaging

DIMENSIONS (IN.)

Model No.	Dimensions (inch)		
	A - Width	B - Depth	C - Height
4SHP20LX124P-1	37.75	35.75	37.5
4SHP20LX136P-1	37.75	35.75	37.5
4SHP20LX148P-1	37.75	35.75	43.75
4SHP20LX160P-1	37.75	35.75	43.75

Note:

Dimensions listed are unit sizes w/o packaging



UNIT SOUND RATINGS

Model	Sound Power ¹ (Low)	Estimated Sound Pressure (dBA) ² (Low)			Sound Power ¹ (High)	Estimated Sound Pressure (dBA) ² (High)		
		Approximate Distance ³				Approximate Distance ³		
		One Meter (3.3 feet)	Two Meters (6.6 feet)	Three Meters (9.8 feet)		One Meter (3.3 feet)	Two Meters (6.6 feet)	Three Meters (9.8 feet)
4SHP20LX124P-1	65	57	51	47	67	59	53	49
4SHP20LX136P-1	67	59	53	49	70	62	56	52
4SHP20LX148P-1	68	60	54	50	70	62	56	52
4SHP20LX160P-1	69	61	55	51	71	63	57	53

¹ Rated in accordance with AHRI standard 270 (2015)

² Rated in accordance with AHRI standard 275 (2010)

³ Based only on distance factor; other factors may change this value such as:

- Unit location (reflective surfaces adjacent to the unit)
- Barrier shielding sources
- Sound path/elevation
- Outside noise sources

REFRIGERATION DATA

Model	Refrig. Charge (oz.) *	TXV	Refrigerant Line Size		Outdoor Unit Connection		Indoor Unit Connection	
			Suction	Liquid	Suction	Liquid	Suction	Liquid
4SHP20LX124P-1	123	H4TXV01	3/4	3/8	3/4	3/8	3/4	3/8
4SHP20LX136P-1	199	H4TXV02	7/8	3/8	7/8	3/8	7/8	3/8
4SHP20LX148P-1	203	H4TXV03	7/8	3/8	7/8	3/8	7/8	3/8
4SHP20LX160P-1	238	H4TXV03	1 1/8	3/8	7/8 **	3/8	7/8	3/8

* Factory charged for 15 feet of line set; adjust per installation instructions.

** Reducer fitting supplied with OD unit

COOLING PERFORMANCE WITH AIR HANDLERS AND FURNACES

Outdoor Model	Furnace	Indoor Model	Cooling				Heating						CFM High	CFM Med	CFM Low
			SEER	EER	AHRI Rated Capacity/ BTUH	Sensible Rated Capacity	HSPF (IV)	HSPF (V)	47°		17°				
		Evaporator Coil or Air Handler ³							Btuh	COP	Btuh	COP			
4SHP20LX124P-1		BCE4M30S*	20.00	14.00	23000	20800	10.00	8.20	21800	3.80	13000	2.40	825	500	450
		BCE4M24S*	19.0	13.5	22000	20000	9.50	7.90	21400	3.60	13000	2.40	800	530	450
	A80DS2V070A12	E*1P43B+TDR+TXV	19.0	13.5	22600	20600	9.50	7.90	21400	3.60	13000	2.40	800	530	450
	A80DS2V090B16	E*1P43B+TDR+TXV	19.0	13.5	22600	20600	9.50	7.90	21400	3.60	13000	2.40	800	530	450
	A80US2V070A12	E*1P36A+H4TXV01	18.50	13.50	23000	20800	9.50	7.90	21800	3.65	13000	2.35	800	530	450
	A80US2V090B12	E*1P36B+H4TXV01	19.00	13.50	23000	20800	9.60	7.95	21800	3.65	13000	2.35	800	530	450
	A96DS2V045B12	E*1P43B+H4TXV01	19.00	13.50	22600	20000	9.60	7.95	21800	3.65	13000	2.35	800	530	450
	A96US2V045B12	E*1P36B+H4TXV01	18.50	13.50	23000	20800	9.60	7.95	21800	3.65	13000	2.35	800	530	450
	A96US2V070B12	E*1P36B+H4TXV01	18.50	13.50	23000	20800	9.60	7.95	21800	3.65	13000	2.35	800	530	450
	A97DSMV070B12	E*1P43B+H4TXV01	19.00	13.50	22600	20000	9.60	7.95	21800	3.65	13000	2.35	800	530	450
	A97USMV070B12	E*1P36B+H4TXV01	18.50	13.50	23000	20800	9.60	7.95	21800	3.65	13000	2.35	800	530	450

COOLING PERFORMANCE WITH AIR HANDLERS AND FURNACES

Outdoor Model	Furnace	Indoor Model	Cooling				Heating						CFM High	CFM Med	CFM Low
			SEER	EER	AHRI Rated Capacity' BTUH	Sensible Rated Capacity	HSPF (IV)	HSPF (V)	47°		17°				
		Evaporator Coil or Air Handler ³							Btuh	COP	Btuh	COP			
4SHP20LX136P-1		BCE4M36S*	20.00	13.50	34000	27200	10.00	8.70	33000	3.25	21000	2.35	1200	630	450
	A80US2V070A12	E*1P36A+H4TXV02	18.00	12.50	33600	27200	9.00	8.15	32000	3.20	21000	2.20	1200	630	450
	A80US2V090B12	E*1P36B+H4TXV02	20.00	12.50	34000	27200	9.60	8.25	32400	3.20	21000	2.20	1200	630	450
	A96US2V045B12	E*1P36B+H4TXV02	20.00	12.50	34000	27200	9.00	8.15	33000	3.20	21000	2.20	1200	630	450
	A96US2V070B12	E*1P36B+H4TXV02	20.00	12.50	34000	27200	9.60	8.15	33000	3.20	21000	2.20	1200	630	450
	A97USMV070B12	E*1P36B+H4TXV02	20.00	12.50	34000	27200	9.60	8.15	33000	3.20	21000	2.20	1200	630	450
	A80US2V090B12	E*1P43B+H4TXV02	20.00	12.50	34000	27200	9.00	7.85	32400	3.20	21000	2.20	1200	630	450
	A96US2V045B12	E*1P43B+H4TXV02	20.00	12.50	34000	27200	9.00	7.80	32400	3.20	21000	2.20	1200	630	450
	A96US2V070B12	E*1P43B+H4TXV02	20.00	12.50	34000	27200	9.00	7.80	32400	3.20	21000	2.20	1200	630	450
	A96US2V090C12	E*1P43C+H4TXV02	20.00	12.50	34000	27200	9.00	7.85	32400	3.20	21000	2.20	1200	630	450
	A97USMV070B12	E*1P43B+H4TXV02	20.00	12.50	34000	27200	9.00	7.80	32400	3.20	21000	2.20	1200	630	450
	A97USMV090C12	E*1P43C+H4TXV02	20.00	12.50	34000	27200	9.00	7.85	32400	3.20	21000	2.20	1200	630	450
	A80US2V090B12	E*1P48B+H4TXV02	19.00	12.50	33600	27200	9.60	8.15	32400	3.20	21000	2.20	1200	630	450
	A96US2V045B12	E*1P48B+H4TXV02	19.00	12.50	33600	27200	9.60	8.15	33000	3.20	21000	2.20	1200	630	450
	A96US2V070B12	E*1P48B+H4TXV02	19.00	12.50	33600	27200	9.60	8.15	33000	3.20	21000	2.20	1200	630	450
	A96US2V090C12	E*1P48C+H4TXV02	19.00	12.50	33600	27200	9.60	8.15	32400	3.20	21000	2.20	1200	630	450
	A97USMV070B12	E*1P48B+H4TXV02	19.00	12.50	33600	27200	9.60	8.15	33000	3.20	21000	2.20	1200	630	450
	A97USMV090C12	E*1P48C+H4TXV02	19.00	12.50	33600	27200	9.60	8.15	32400	3.20	21000	2.20	1200	630	450
4SHP20LX148P-1		BCE4M48S*	19.50	12.50	48000	41700	9.60	8.85	45000	3.40	27000	2.40	1615	915	745
	A80DS2V110C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A80US2V090C20	E*1P49C+H4TXV03	18.50	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A80US2V110C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96DS2V090C20	E*1P49C+H4TXV03	17.5	12	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A96DS2V110C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A96US2V090C16	E*1P49C+H4TXV03	18.50	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V090C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A96US2V110C16	E*1P49C+H4TXV03	18.50	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V110C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A97DSMV090C16	E*1P49C+H4TXV03	18.00	12.00	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A97DSMV090C20	E*1P49C+H4TXV03	17.5	12	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A97DSMV110C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	8.50	7.80	43500	3.30	27000	2.30	1600	900	750
	A97USMV090C16	E*1P49C+H4TXV03	18.50	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A97USMV090C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A97USMV110C20	E*1P49C+H4TXV03	18.00	12.00	47000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A80US2V090C20	E*1P62C+H4TXV03	18.50	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A80US2V110C20	E*1P62C+H4TXV03	18.00	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V090C16	E*1P62C+H4TXV03	18.50	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V090C20	E*1P62C+H4TXV03	18.00	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V110C16	E*1P62C+H4TXV03	18.50	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V110C20	E*1P62C+H4TXV03	18.00	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750

COOLING PERFORMANCE WITH AIR HANDLERS AND FURNACES

Outdoor Model	Furnace	Indoor Model	Cooling				Heating						CFM High	CFM Med	CFM Low
			SEER	EER	AHRI Rated Capacity ¹ BTUH	Sensible Rated Capacity	HSPF (IV)	HSPF (V)	47°		17°				
		Evaporator Coil or Air Handler ³							Btuh	COP	Btuh	COP			
4SHP20LX148P-1	A97USMV090C16	E*1P62C+H4TXV03	18.50	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A97USMV090C20	E*1P62C+H4TXV03	18.00	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A97USMV110C20	E*1P62C+H4TXV03	18.00	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A80US2V135D20	E*1P62D+H4TXV03	18.00	12.00	48000	41700	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A96US2V135D20	E*1P62D+H4TXV03	18.0	12	47000	41000	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
	A97USMV135D20	E*1P62D+H4TXV03	18.0	12	47000	41000	9.00	7.90	43500	3.30	27000	2.30	1600	900	750
4SHP20LX160-1		BCE4M60S*	19.00	12.50	56500	42800	9.60	8.30	54500	3.20	34800	2.40	1800	1125	900
	A80DS2V110C20	E*1P49C+H4TXV03	18.00	11.50	56000	42800	9.00	8.15	54000	3.00	34000	2.20	1800	1125	900
	A96DS2V090C20	E*1P49C+H4TXV03	18.00	11.50	56000	42800	9.00	8.15	54000	3.20	34000	2.40	1800	1125	900
	A96DS2V110C20	E*1P49C+H4TXV03	18.00	11.50	56000	42800	9.00	8.15	54000	3.20	34000	2.40	1800	1125	900
	A97DSMV090C20	E*1P49C+H4TXV03	18.00	11.50	56000	42800	9.00	8.15	54000	3.20	34000	2.40	1800	1125	900
	A97DSMV110C20	E*1P49C+H4TXV03	18.00	11.50	56000	42800	9.00	8.15	54000	3.00	34000	2.20	1800	1125	900
	A80US2V110C20	E*1P49C+H4TXV03	18.00	11.50	56500	42800	9.00	8.15	54000	3.00	34800	2.20	1800	1125	900
	A96US2V090C20	E*1P49C+H4TXV03	18.00	11.50	56500	42800	9.00	8.15	54000	3.20	34800	2.40	1800	1125	900
	A96US2V110C20	E*1P49C+H4TXV03	18.00	11.50	56500	42800	9.00	8.15	54000	3.20	34800	2.40	1800	1125	900
	A97USMV090C20	E*1P49C+H4TXV03	18.00	11.50	56500	42800	9.00	8.15	54000	3.20	34800	2.40	1800	1125	900
	A97USMV110C20	E*1P49C+H4TXV03	18.00	11.50	56500	42800	9.00	8.15	54000	3.00	34800	2.20	1800	1125	900
	A80US2V090C20	E*1P62C+H4TXV03	18.50	12.00	57500	42800	9.60	8.35	54000	3.20	34800	2.20	1800	1125	900
	A80US2V110C20	E*1P62C+H4TXV03	18.50	12.00	57500	42800	9.60	8.30	54000	3.20	34800	2.40	1800	1125	900
	A96US2V090C20	E*1P62C+H4TXV03	18.50	12.00	57000	42800	9.60	8.30	54500	3.20	34800	2.40	1800	1125	900
	A96US2V110C20	E*1P62C+H4TXV03	18.50	12.00	57500	42800	9.60	8.30	54500	3.20	34800	2.40	1800	1125	900
	A97USMV090C20	E*1P62C+H4TXV03	18.50	12.00	57000	42800	9.60	8.30	54500	3.20	34800	2.40	1800	1125	900
	A97USMV110C20	E*1P62C+H4TXV03	18.50	12.00	57500	42800	9.60	8.30	54500	3.00	34800	2.20	1800	1125	900
	A80US2V135D20	E*1P62D+H4TXV03	19.00	12.50	58000	42800	9.60	8.45	53000	3.00	34800	2.20	1800	1125	900
	A96US2V135D20	E*1P62D+H4TXV03	18.50	12.50	58000	42800	9.60	8.50	53000	3.20	34800	2.40	1800	1125	900
	A97USMV135D20	E*1P62D+H4TXV03	18.50	12.50	58000	42800	9.60	8.50	53000	3.20	34800	2.40	1800	1125	900

COOLING PERFORMANCE EXTENDED RATINGS

4SHP20LX124P-1 - BCE4M30S - MAXIMUM CAPACITY

Indoor Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85° F (29.4° C)						95° F (35° C)						105° F (40.6° C)						115° F (46.1° C)					
		Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb						
				cfm	kBtuh	kW			75°F 23.9°C	80°F 26.7°C	85°F 29.4°C			kBtuh	kW	75°F 23.9°C			80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C
59°F (15°C)	560	20	1.25	0.9	1	1	19.3	1.43	0.92	1	1	18.4	1.63	0.94	1	1	17.4	1.87	0.98	1	1				
	800	22.6	1.23	1	1	1	21.6	1.41	1	1	1	20.6	1.61	1	1	1	19.4	1.85	1	1	1				
	860	23	1.23	1	1	1	22	1.41	1	1	1	21	1.61	1	1	1	19.7	1.85	1	1	1				
63°F (17.2°C)	560	21	1.24	0.73	0.86	0.99	20.2	1.42	0.74	0.88	1	19	1.63	0.76	0.91	1	17.8	1.86	0.78	0.94	1				
	800	22.8	1.23	0.81	0.97	1	21.6	1.41	0.83	0.99	1	20.6	1.61	0.86	1	1	19.4	1.85	0.89	1	1				
	860	23	1.23	0.83	0.99	1	22	1.41	0.85	1	1	21	1.61	0.88	1	1	19.7	1.85	0.92	1	1				
67°F (19.4°C)	560	22.4	1.23	0.58	0.7	0.83	21.4	1.41	0.59	0.72	0.85	20.2	1.62	0.6	0.74	0.87	18.9	1.86	0.61	0.76	0.91				
	800	24.2	1.22	0.63	0.79	0.94	23	1.4	0.64	0.81	0.97	21.6	1.6	0.66	0.83	0.99	20.2	1.84	0.67	0.87	1				
	860	24.4	1.22	0.64	0.81	0.97	23.2	1.4	0.65	0.83	0.99	21.8	1.6	0.67	0.86	1	20.4	1.84	0.69	0.89	1				
71°F (21.7°C)	560	23.6	1.22	0.44	0.56	0.68	22.6	1.4	0.44	0.57	0.69	21.4	1.61	0.45	0.58	0.71	20	1.84	0.45	0.6	0.73				
	800	25.4	1.21	0.46	0.62	0.76	24.2	1.39	0.47	0.63	0.78	23	1.59	0.47	0.64	0.81	21.4	1.83	0.48	0.66	0.84				
	860	25.8	1.21	0.47	0.63	0.78	24.6	1.38	0.48	0.64	0.81	23.2	1.59	0.48	0.66	0.83	21.6	1.83	0.49	0.68	0.87				

4SHP20LX124P-1 - BCE4M30S - INTERMEDIATE CAPACITY

Indoor Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																				
		85° F (29.4° C)						95° F (35° C)					105° F (40.6° C)					115° F (46.1° C)				
		Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			
				Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb			
		cfm	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C
59°F (15°C)	350	13.7	0.68	0.87	1	1	13.2	0.8	0.89	1	1	12.6	0.92	0.91	1	1	12	1.06	0.94	1	1	
	530	15.8	0.66	0.99	1	1	15.2	0.78	1	1	1	14.5	0.9	1	1	1	13.8	1.05	1	1	1	
	550	16	0.66	1	1	1	15.4	0.78	1	1	1	14.7	0.9	1	1	1	14	1.05	1	1	1	
63°F (17.2°C)	350	14.5	0.68	0.71	0.84	0.96	13.9	0.8	0.72	0.85	0.98	13.2	0.92	0.74	0.87	1	12.5	1.06	0.76	0.9	1	
	530	16	0.66	0.8	0.96	1	15.3	0.78	0.82	0.99	1	14.5	0.9	0.84	1	1	13.8	1.05	0.87	1	1	
	550	16.1	0.66	0.81	0.98	1	15.4	0.78	0.83	1	1	14.7	0.9	0.86	1	1	14	1.05	0.88	1	1	
67°F (19.4°C)	350	15.4	0.67	0.57	0.69	0.8	14.7	0.79	0.57	0.7	0.82	14	0.91	0.58	0.71	0.84	13.3	1.06	0.59	0.73	0.86	
	530	16.9	0.65	0.62	0.78	0.93	16.2	0.77	0.63	0.8	0.95	15.3	0.9	0.65	0.82	0.98	14.5	1.05	0.66	0.84	1	
	550	17	0.65	0.63	0.79	0.94	16.3	0.77	0.64	0.81	0.97	15.5	0.9	0.65	0.83	0.99	14.6	1.05	0.67	0.86	1	
71°F (21.7°C)	350	16.2	0.66	0.44	0.55	0.66	15.6	0.78	0.44	0.56	0.67	14.9	0.9	0.44	0.57	0.68	14.1	1.05	0.45	0.58	0.7	
	530	17.8	0.64	0.46	0.61	0.76	17.1	0.76	0.47	0.62	0.77	16.2	0.89	0.47	0.63	0.79	15.4	1.04	0.48	0.65	0.82	
	550	17.9	0.64	0.47	0.62	0.76	17.2	0.76	0.47	0.63	0.78	16.3	0.89	0.47	0.64	0.8	15.5	1.04	0.48	0.66	0.83	

COOLING PERFORMANCE EXTENDED RATINGS

4SHP20LX124P-1 - BCE4M30S - MINIMUM CAPACITY

Indoor Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																						
		85° F (29.4° C)						95° F (35° C)						105° F (40.6° C)						115° F (46.1° C)				
		Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)					
				Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					
				75°F 23.9°C	80°F 26.7°C	85°F 29.4°C			kBtuh	kW	75°F 23.9°C			80°F 26.7°C	85°F 29.4°C	kBtuh			kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW
cfm	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C				
59°F (15°C)	315	11.2	0.49	0.91	1	1	10.7	0.59	0.93	1	1	10.3	0.68	0.96	1	1	9.8	0.8	0.99	1	1			
	450	12.7	0.47	1	1	1	12.2	0.57	1	1	1	11.6	0.67	1	1	1	11	0.79	1	1	1			
	490	13	0.46	1	1	1	12.5	0.56	1	1	1	11.9	0.66	1	1	1	11.3	0.78	1	1	1			
63°F (17.2°C)	315	11.7	0.48	0.74	0.87	1	11.1	0.58	0.75	0.9	1	10.6	0.68	0.77	0.92	1	9.9	0.8	0.79	0.95	1			
	450	12.7	0.47	0.83	0.99	1	12.1	0.57	0.84	1	1	11.6	0.66	0.87	1	1	11	0.78	0.9	1	1			
	490	13	0.46	0.85	1	1	12.5	0.56	0.87	1	1	11.9	0.66	0.9	1	1	11.3	0.78	0.94	1	1			
67°F (19.4°C)	315	12.4	0.47	0.58	0.71	0.84	11.9	0.57	0.59	0.73	0.86	11.3	0.67	0.6	0.74	0.88	10.6	0.79	0.61	0.76	0.91			
	450	13.5	0.46	0.63	0.8	0.96	12.8	0.56	0.65	0.82	0.98	12.2	0.66	0.66	0.84	1	11.4	0.78	0.68	0.88	1			
	490	13.7	0.45	0.65	0.82	0.99	13	0.55	0.66	0.85	1	12.3	0.66	0.68	0.88	1	11.6	0.78	0.7	0.91	1			
71°F (21.7°C)	315	13.2	0.46	0.44	0.56	0.68	12.6	0.56	0.45	0.57	0.7	12	0.66	0.45	0.58	0.71	11.3	0.78	0.45	0.6	0.74			
	450	14.3	0.45	0.47	0.62	0.78	13.6	0.55	0.47	0.63	0.79	12.9	0.65	0.47	0.65	0.82	12.1	0.77	0.48	0.67	0.85			
	490	14.5	0.44	0.47	0.63	0.8	13.9	0.54	0.48	0.66	0.82	13.1	0.65	0.48	0.67	0.85	12.3	0.77	0.49	0.69	0.88			

HEATING PERFORMANCE EXTENDED RATINGS

4SHP20LX124P-1 - BCE4M30S - MINIMUM CAPACITY

Indoor Coil Air Volume 70°F Dry Bulb	Air Temperature Entering Outdoor Coil							
	65°F		60°F		55°F		50°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
cfm	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
350	11	0.59	10.5	0.58	9.9	0.58	9.3	0.57
400	11.2	0.56	10.6	0.55	10	0.55	9.5	0.54
450	11.3	0.54	10.7	0.53	10.1	0.53	9.6	0.52

4SHP20LX124P-1 - BCE4M30S - MAXIMUM CAPACITY

Indoor Coil Air Volume 70°F Dry Bulb	65°F		45°F		25°F		5°F		-15°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
cfm	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
700	25.6	1.61	20.8	1.62	16	1.62	11.1	1.52	5.5	1.1
800	25.9	1.56	21.1	1.56	16.3	1.56	11.4	1.46	5.7	1.04
900	26.1	1.51	21.3	1.51	16.5	1.51	11.6	1.41	6	0.99

4SHP20LX124P-1 - BCE4M30S

HEATING PERFORMANCE at 800 cfm Indoor Coil Air Volume		
Outdoor Temperature	Compressor Motor Input	Total Output
°F	kW	kBtuh
65	1.56	25.9
60	1.56	24.7
55	1.56	23.5
50	1.56	22.3
47	1.56	21.6
45	1.56	21.1
40	1.56	19.8
35	1.55	18.5
30	1.56	17.4
25	1.56	16.3
20	1.56	15.1
17	1.56	14.4
15	1.56	14
10	1.56	12.8
5	1.46	11.4
0	1.35	10
-5	1.25	8.6
-10	1.14	7.1
-15	1.04	5.7
-20	0.94	4.3

COOLING PERFORMANCE EXTENDED RATINGS

4SHP20LX136P-1 - BCE4M36S - MAXIMUM CAPACITY

Indoor Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85° F (29.4° C)						95° F (35° C)						105° F (40.6° C)						115° F (46.1° C)					
		Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb						
	cfm	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C				
59°F (15°C)	840	30.8	1.91	0.89	1	1	29.6	2.18	0.91	1	1	28.4	2.51	0.93	1	1	27	2.85	0.96	1	1				
	1200	34.4	1.89	0.99	1	1	33.2	2.17	1	1	1	31.6	2.47	1	1	1	30	2.82	1	1	1				
	1300	35.2	1.88	1	1	1	33.8	2.16	1	1	1	32.4	2.47	1	1	1	30.6	2.81	1	1	1				
63°F (17.2°C)	840	32.4	1.9	0.72	0.85	0.98	31	2.18	0.74	0.87	0.99	29.4	2.49	0.75	0.89	1	27.8	2.85	0.77	0.92	1				
	1200	34.8	1.88	0.8	0.96	1	33.4	2.17	0.82	0.98	1	31.8	2.47	0.84	1	1	30	2.8	0.87	1	1				
	1300	35.4	1.88	0.82	0.98	1	34	2.16	0.84	1	1	32.4	2.47	0.87	1	1	30.6	2.81	0.89	1	1				
67°F (19.4°C)	840	34.2	1.89	0.58	0.7	0.82	32.8	2.17	0.58	0.71	0.84	31.2	2.48	0.59	0.73	0.86	29.4	2.82	0.6	0.74	0.88				
	1200	36.8	1.87	0.62	0.78	0.93	35.2	2.15	0.63	0.8	0.95	33.4	2.46	0.65	0.82	0.97	31.4	2.8	0.66	0.85	1				
	1300	37.2	1.87	0.64	0.8	0.96	35.6	2.15	0.65	0.82	0.97	33.8	2.45	0.66	0.84	0.99	31.8	2.79	0.68	0.87	1				
71°F (21.7°C)	840	36	1.88	0.44	0.56	0.68	34.6	2.16	0.45	0.57	0.69	33	2.46	0.45	0.58	0.7	31	2.8	0.45	0.59	0.72				
	1200	38.5	1.86	0.46	0.61	0.76	37	2.14	0.47	0.63	0.77	35.2	2.44	0.47	0.64	0.8	33.2	2.78	0.48	0.65	0.82				
	1300	39	1.86	0.47	0.63	0.78	37.6	2.13	0.48	0.64	0.8	35.6	2.44	0.48	0.65	0.82	33.6	2.77	0.49	0.67	0.85				

4SHP20LX136P-1 - BCE4M36S - INTERMEDIATE CAPACITY

Indoor Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85° F (29.4° C)						95° F (35° C)						105° F (40.6° C)						115° F (46.1° C)					
		Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb						
	cfm	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C				
59°F (15°C)	440	17.8	0.78	0.86	0.99	1	17	0.94	0.88	1	1	16.3	1.12	0.9	1	1	15.6	1.3	0.92	1	1				
	630	20.2	0.74	0.96	1	1	19.4	0.9	0.99	1	1	18.6	1.08	1	1	1	17.7	1.26	1	1	1				
	770	21.4	0.71	1	1	1	20.6	0.88	1	1	1	19.7	1.05	1	1	1	18.8	1.24	1	1	1				
63°F (17.2°C)	440	18.9	0.76	0.71	0.83	0.94	18.1	0.92	0.72	0.84	0.96	17.2	1.1	0.73	0.86	0.99	16.3	1.29	0.74	0.88	1				
	630	20.6	0.73	0.78	0.93	1	19.7	0.89	0.79	0.95	1	18.8	1.07	0.81	0.98	1	17.7	1.26	0.84	1	1				
	770	21.4	0.71	0.83	0.99	1	20.6	0.88	0.85	1	1	19.7	1.05	0.88	1	1	18.8	1.24	0.9	1	1				
67°F (19.4°C)	440	20	0.74	0.56	0.68	0.79	19.2	0.9	0.57	0.69	0.81	18.3	1.08	0.58	0.7	0.82	17.3	1.27	0.59	0.72	0.85				
	630	21.8	0.7	0.61	0.76	0.89	20.8	0.87	0.62	0.77	0.92	19.9	1.05	0.63	0.79	0.94	18.8	1.24	0.64	0.81	0.97				
	770	22.6	0.69	0.64	0.81	0.97	21.6	0.86	0.65	0.83	0.99	20.6	1.04	0.67	0.85	1	19.5	1.23	0.68	0.88	1				
71°F (21.7°C)	440	21.2	0.72	0.43	0.55	0.65	20.2	0.89	0.44	0.55	0.66	19.4	1.06	0.44	0.56	0.68	18.4	1.25	0.44	0.57	0.69				
	630	23	0.68	0.45	0.59	0.73	22	0.85	0.46	0.6	0.75	21	1.03	0.46	0.62	0.76	19.9	1.22	0.47	0.63	0.79				
	770	23.8	0.66	0.47	0.63	0.78	22.8	0.83	0.47	0.64	0.8	21.8	1.01	0.48	0.65	0.83	20.6	1.2	0.49	0.67	0.85				

COOLING PERFORMANCE EXTENDED RATINGS

4SHP20LX136P-1 - BCE4M36S - MINIMUM CAPACITY

Indoor Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85° F (29.4° C)						95° F (35° C)						105° F (40.6° C)						115° F (46.1° C)					
		Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb					Indoor Dry Bulb						
				75°F 23.9°C	80°F 26.7°C	85°F 29.4°C			75°F 23.9°C	80°F 26.7°C	85°F 29.4°C			75°F 23.9°C	80°F 26.7°C	85°F 29.4°C			75°F 23.9°C	80°F 26.7°C	85°F 29.4°C				
cfm	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C	kBtuh	kW	75°F 23.9°C	80°F 26.7°C	85°F 29.4°C					
59°F (15°C)	315	10.8	0.42	0.95	1	1	10	0.52	0.99	1	1	9.3	0.63	1	1	1	8.7	0.77	1	1	1				
	450	12.4	0.38	1	1	1	11.4	0.48	1	1	1	10.6	0.6	1	1	1	9.8	0.75	1	1	1				
	465	12.5	0.37	1	1	1	11.5	0.48	1	1	1	10.7	0.6	1	1	1	9.9	0.74	1	1	1				
63°F (17.2°C)	315	11.2	0.41	0.76	0.9	1	10.2	0.51	0.79	0.95	1	9.3	0.64	0.83	1	1	8.6	0.77	0.87	1	1				
	450	12.4	0.38	0.86	1	1	11.4	0.48	0.9	1	1	10.6	0.6	0.96	1	1	9.8	0.75	1	1	1				
	465	12.5	0.38	0.87	1	1	11.6	0.48	0.92	1	1	10.7	0.6	0.97	1	1	9.9	0.74	1	1	1				
67°F (19.4°C)	315	12	0.39	0.59	0.73	0.87	10.9	0.49	0.61	0.76	0.91	10	0.62	0.63	0.8	0.96	9.2	0.76	0.65	0.83	1				
	450	13	0.36	0.65	0.83	0.99	11.9	0.46	0.68	0.87	1	10.8	0.59	0.71	0.92	1	9.9	0.74	0.74	0.97	1				
	465	13.1	0.36	0.66	0.84	1	11.9	0.46	0.68	0.89	1	10.9	0.59	0.72	0.94	1	9.9	0.74	0.75	0.99	1				
71°F (21.7°C)	315	12.7	0.37	0.45	0.58	0.7	11.7	0.48	0.46	0.6	0.73	10.7	0.6	0.46	0.62	0.77	9.8	0.74	0.47	0.64	0.8				
	450	13.9	0.34	0.47	0.64	0.8	12.7	0.44	0.48	0.66	0.84	11.6	0.57	0.49	0.69	0.89	10.6	0.72	0.51	0.73	0.94				
	465	14	0.34	0.48	0.65	0.81	12.8	0.44	0.48	0.67	0.86	11.7	0.56	0.5	0.71	0.91	10.7	0.72	0.51	0.74	0.95				

HEATING PERFORMANCE EXTENDED RATINGS**4SHP20LX136P-1 - BCE4M36S - MINIMUM CAPACITY**

Indoor Coil Air Volume 70°F Dry Bulb	Air Temperature Entering Outdoor Coil							
	65°F		60°F		55°F		50°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
cfm	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
455	13	0.61	12.2	0.61	11.3	0.62	10.5	0.62
650	13.4	0.54	12.6	0.54	11.8	0.54	10.9	0.54
700	13.6	0.53	12.8	0.53	11.9	0.53	11.1	0.53

4SHP20LX136P-1 - BCE4M36S - MAXIMUM CAPACITY

Indoor Coil Air Volume 70°F Dry Bulb	65°F		45°F		25°F		5°F		-15°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
cfm	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
1050	39.4	2.88	31.8	2.62	24.2	2.31	16.6	2.17	8.2	1.61
1200	39.9	2.79	32.3	2.53	24.7	2.22	17	2.08	8.6	1.52
1355	40.3	2.71	32.7	2.44	25	2.14	17.4	1.99	9	1.43

4SHP20LX136P-1 - BCE4M36S

HEATING PERFORMANCE at 1200 cfm Indoor Coil Air Volume		
Outdoor Temperature	Compressor Motor Input	Total Output
°F	kW	kBtuh
65	2.79	39.9
60	2.74	38
55	2.69	36.1
50	2.64	34.2
47	2.6	33.1
45	2.53	32.3
40	2.33	30.3
35	2.14	28.3
30	2.18	26.5
25	2.22	24.7
20	2.26	22.9
17	2.29	21.8
15	2.27	21
10	2.22	19.1
5	2.08	17
0	1.94	14.9
-5	1.8	12.8
-10	1.66	10.7
-15	1.52	8.6
-20	1.38	6.5