

BA13L

PRODUCT SPECIFICATIONS

13 SEER SPLIT SYSTEM AIR CONDITIONER

FORM NO. 4AC13-100 (07/2021)



FEATURES

- R410a Refrigerant
- Factory installed high pressure switch
- High-quality condenser coil with copper tubing and enhanced louvered fin for maximum heat transfer capacity
- Top discharge with fan orifice to direct hot air away from living area and shrubbery
- All units factory run tested
- Available with louvered panel or wire guard coil protection
- Easy access to electrical panels
- Corner mounted service valves for easy hook-up and service
- Liquid line filter drier shipped loose
- Charged for 15 feet of interconnecting tubing
- All units are ETL and ETL approved and AHRI certified

WARRANTY

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

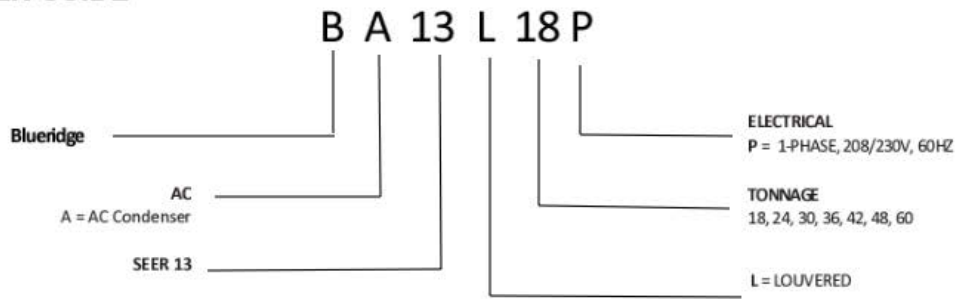
**Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults to 5-year coverage. See full warranty at www.alliedair.com for terms, conditions and exclusions.*

NOTE:

For the latest AHRI system matches please visit www.alliedratings.com or www.AHRIdirectory.org



MODEL NUMBER GUIDE

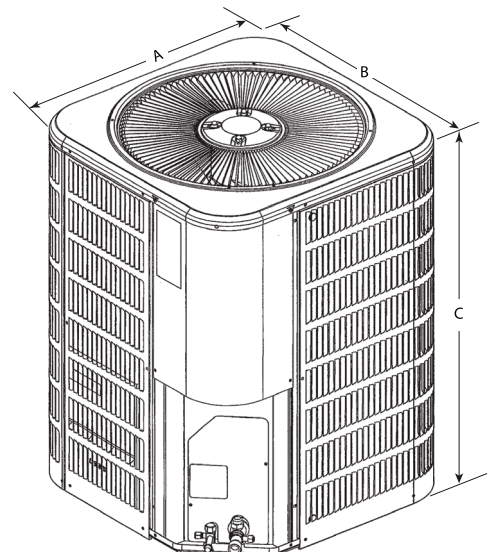


PHYSICAL AND ELECTRICAL DATA

Model	Voltage/Hz/ Phase	Voltage Range	Min. Circuit Amp.	Max. Over Current Device (amps) [†]	Compressor		Outdoor Fan Motor		
					Rated Load (amps)	Locked Rotor (amps)	Rated Load (amps)	Rated HP	Nom. RPM
BA13L18P	208-230/60/1	197-253	12.4	20	9.4	57	0.7	1/10	1010
BA13L24P	208-230/60/1	197-253	14.7	25	11.2	61	0.7	1/10	1010
BA13L30P	208-230/60/1	197-253	18.7	30	14.1	64	1.1	1/5	1090
BA13L36P	208-230/60/1	197-253	22.0	35	16.7	79	1.1	1/5	1090
BA13L42P	208-230/60/1	197-253	25.7	40	19.2	124	1.7	1/4	825
BA13L48P	208-230/60/1	197-253	31.9	50	24.2	100	1.7	1/4	825
BA13L60P	208-230/60/1	197-253	34.7	60	26.4	125	1.7	1/4	825

UNIT DIMENSIONS (IN.)

Model	Dimensions (inch)			Weight (lbs.)	
	A - Width	B - Depth	C - Height	Wire Guard	Louvered
BA13L18P	24.25	24.25	25	125	136
BA13L24P	24.25	24.25	25	126	137
BA13L30P	24.25	24.25	29	139	147
BA13L36P	24.25	24.25	29	141	149
BA13L42P	28.25	28.25	29	184	194
BA13L48P	28.25	28.25	33	181	192
BA13L60P	28.25	28.25	29	194	205



SOUND RATINGS

Model	Sound Power ¹	Estimated Sound Pressure (dBA) ²		
		Approximate Distance ³		
		3.3 Feet (1 Meter)	6.6 Feet (2 Meters)	9.8 Feet (3 Meters)
BA13L18P	74	66	60	56
BA13L24P	74	66	60	56
BA13L30P	74	66	60	56
BA13L36P	74	66	60	56
BA13L42P	79	71	65	61
BA13L48P	79	71	65	61
BA13L60P	80	72	66	62

¹ Rated in accordance with AHRI standard 270 (2015). AHRI Standard 270 establishes a method of rating outdoor unitary equipment in terms of Sound Power.

² Rated in accordance with AHRI standard 275 (2010). AHRI Standard 275 provides the calculations for estimating the A-Weighted Sound Pressure at a given distance from the equipment. That is a more useful number because that is what humans will hear.

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

ACCESSORIES

System Accessory	Where Used	Kit Number	Purpose
Liquid Line solenoid	All models	60M52	Prevents liquid migration to the compressor especially for high liquid riser applications
Low ambient (cooling operation)	All models	34M72	Enables cooling demand down to 30 °F. Will require freeze stat, CC heater and TXV
Compressor Short Cycle protector	All models	47J27	Delays compressor start 5-7 minutes to prevent short cycling
Hard Start	18	10J42	Scroll compressors usually do not require hard start; maybe needed for utility brown-out or low voltage areas
Hard Start	24 thru 60	88M91	
Crankcase Heater	18, 24, 30, 36	93M04	Prevents liquid migration to compressor in cold weather
Crankcase Heater	42, 48, 60	93M05	
Sound Cover	18, 24, 30, 36	14W00	Lowers compressor sound level
Sound Cover	42, 48, 60	14W01	
Loss of Charge Kit	All models	84M23	Protects the compressor if refrigerant charge is too low
Additional System Accessories (indoor section)			
TXV Kit	18, 24, 30	H4TXV01	TXVs provide superior refrigerant flow control, comfort and efficiency compared to pistons
	36, 42, 48	H4TXV02	
	60	H4TXV03	
Outdoor Thermostat - electric heat	All models	10Z23	Prevents electric heat operation above specific ambient conditions
Outdoor Thermostat - Mounting box	All models	31461	Mounting box for outdoor thermostat
Freeze stat	All models	93G35	Protects the compressor at low suction pressure conditions
Over flow switch	All models	11U75	Turn the system off, if condensate water overflows due to clogged drain pipes
Blower time delay	All models	58M81	Improves system efficiency and comfort
Single point power supply	All models	21H39	Provide single power source in one junction box
Auxiliary blower relay	All models	85W66	Maybe required to select multiple indoor blower speeds

Note: All of the above accessories are field installed

REFRIGERATION DATA

Outdoor Model	Charge (oz) ⁶	Refrigerant Connection				Refrigerant Line Size		Indoor Expansion Device	
		Outdoor		Indoor (DTC) ⁷					
		Suction	Liquid	Suction	Liquid	Suction	Liquid	Piston	TXV ¹
BA13L18P	65	5/8	3/8	3/4	3/8	5/8 or 3/4 ³	3/8 or 1/4 ²	0.053	H4TXV01
BA13L24P	62	5/8	3/8	3/4	3/8	5/8 or 3/4 ³	3/8 or 1/4 ²	0.057	H4TXV01
BA13L30P	82	3/4	3/8	3/4	3/8	3/4	3/8	0.063	H4TXV01
BA13L30P-1	82	3/4	3/8	3/4	3/8	3/4	3/8	0.059	H4TXV01
BA13L36P	84	3/4	3/8	7/8	3/8	3/4	3/8	0.072	H4TXV02
BA13L42P	104	3/4	3/8	7/8	3/8	3/4 ⁵	3/8	0.074	H4TXV02
BA13L48P	124	7/8	3/8	7/8	3/8	7/8	3/8	0.082	H4TXV02
BA13L60P	144	7/8	3/8	7/8	3/8	7/8 or 1-1/8 ⁴	3/8	0.090	H4TXV02

Note:

¹ Required to achieve AHRI rating. If NA (Not Applicable) is in the piston column, then TXV is required.

² Use 3/8 if over 24 feet of line set

³ Use 3/4 if over 24 feet of line set

⁴ Use 1-1/8 if over 24 feet of line set. Adapter provided with OD unit

⁵ Use 7/8 if over 24 feet of line set

⁶ Charged for 15 ft of line set

⁷ DTC = Designated Tested Combination

COOLING PERFORMANCE WITH DTC¹

Outdoor Model	Indoor Model	Capacity (BTUH)	EER	SEER
BA13L18P	BC1P24(A,B) + TDR	17600	11	13
BA13L24P	BC1P24(A,B) + TDR	22800	11	13
BA13L30P	BC1P30(A,B) + TDR	28000	10.7	13
BA13L36P	BC1P36(A,B) + TDR	34000	10.5	13
BA13L42P	BC1P48C + TDR	40000	10.7	13
BA13L48P	BC1P48(B,C) + TDR	47000	11	13
BA13L60P	BC1P60C + TDR	57000	10.7	13

¹ DTC = Designated Tested Combination

NOTE:

For the latest AHRI system matches please visit www.alliedratings.com or www.AHRIdirectory.org

COOLING PERFORMANCE EXTENDED RATINGS

Outdoor Model	Indoor Model Piston or Field Installed TXV	Indoor Temp DB/ WB °F	Outdoor Air Temperature Entering Outdoor Coil														
			65			82			95			105			115		
			Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW
BA13L18P	E*1P19	85/72	19,900	0.67	1.49	19,000	0.71	1.61	18,500	0.74	1.71	17,400	0.76	1.78	16,300	0.77	1.38
		80/67	18,800	0.69	1.38	18,300	0.73	1.74	18,000	0.76	1.64	16,700	0.78	2.19	15,300	0.80	1.33
		75/63	17,400	0.74	1.33	16,900	0.78	1.47	16,700	0.81	1.58	15,500	0.83	1.65	14,200	0.85	1.28
		75/57	16,400	0.83	1.30	16,100	0.88	1.44	16,000	0.91	1.55	14,900	0.93	1.61	13,600	0.95	1.25
BA13L24P	E*1P24	85/72	23,200	0.65	1.66	23,100	0.70	1.90	23,100	0.74	2.08	22,300	0.76	2.20	21,400	0.77	1.90
		80/67	22,900	0.69	1.65	23,000	0.73	2.03	23,000	0.76	2.06	21,700	0.79	2.51	20,300	0.81	1.69
		75/63	22,700	0.74	1.65	22,000	0.78	1.84	21,400	0.81	1.99	20,100	0.83	2.06	18,800	0.85	1.76
		75/57	22,300	0.83	1.64	21,500	0.88	1.82	20,800	0.91	1.95	19,500	0.93	2.02	18,200	0.95	1.72
BA13L30P	E*1P29	85/72	31,900	0.66	2.14	30,700	0.70	2.46	29,700	0.73	2.72	27,900	0.75	2.81	26,200	0.76	3.02
		80/67	30,100	0.66	2.12	28,900	0.72	2.03	28,000	0.75	2.61	26,300	0.77	2.51	24,700	0.78	2.91
		75/63	27,900	0.79	2.11	26,800	0.80	2.34	25,900	0.80	2.51	24,300	0.82	2.60	22,800	0.84	2.80
		75/57	27,100	0.82	2.07	26,000	0.87	2.29	25,100	0.90	2.46	23,600	0.92	2.55	22,200	0.94	2.74
BA13L36p	E*1P36	85/72	42,100	0.61	2.4	39,890	0.64	2.86	38,200	0.67	3.22	35,650	0.7	3.61	33,100	0.73	3.99
		80/67	39,900	0.68	2.38	37,010	0.73	2.85	34,800	0.76	3.21	32,150	0.79	3.58	29,500	0.81	3.95
		75/63	37,900	0.71	2.36	34,727	0.75	2.82	32,300	0.78	3.17	29,600	0.82	3.53	26,900	0.86	3.88
		75/57	35,800	1.00	2.33	32,570	1.00	2.77	30,100	1.00	3.11	27,150	1.00	3.47	24,200	1.00	3.82
BA13L42P	E*1P43	85/72	46,800	0.65	1.66	44,900	0.68	2.91	43,500	0.71	3.86	41,000	0.73	4.02	38,500	0.74	6.17
		80/67	44,500	0.67	1.65	42,500	0.7	2.03	41,000	0.73	3.73	39,600	0.75	2.51	38,200	0.77	6.13
		75/63	44,200	0.68	1.65	40,600	0.74	2.75	37,900	0.78	3.59	35,600	0.8	3.72	33,400	0.82	5.71
		75/57	40,800	0.71	1.64	38,600	0.80	2.70	36,800	0.87	3.51	34,600	0.89	3.64	32,400	0.91	5.60
BA13L48P	E*1P49	85/72	61,100	0.63	3.56	57,870	0.65	4.50	55,400	0.66	4.57	52,000	0.69	5.03	48,600	0.71	5.48
		80/67	56,800	0.69	3.49	53,230	0.71	4.06	50,500	0.73	4.50	46,800	0.76	4.95	43,100	0.79	5.39
		75/63	53,300	0.72	3.44	49,447	0.75	4.01	46,500	0.77	4.44	42,800	0.80	4.92	39,100	0.83	5.39
		75/57	47,000	1.00	3.39	43,713	1.00	3.95	41,200	1.00	4.38	38,500	1.00	4.85	35,800	1.00	5.31
BA13L60P	E*1P49	85/72	69,800	0.61	4.02	66,457	0.63	4.75	63,900	0.64	5.30	59,950	0.67	5.87	56,000	0.69	6.44
		80/67	65,400	0.68	3.96	61,490	0.70	4.72	58,500	0.71	5.30	54,600	0.74	5.83	50,700	0.77	6.36
		75/63	61,400	0.71	3.90	56,923	0.73	4.59	53,500	0.75	5.12	49,650	0.78	5.70	45,800	0.81	6.27
		75/57	45,400	1.00	3.83	46,760	1.00	4.54	47,800	1.00	5.09	45,600	1.00	5.67	43,400	1.00	6.24



1-800-448-5872

All specifications and illustrations subject to change without notice and without incurring obligations.