

# 4AC13

## PRODUCT SPECIFICATIONS

## 13 SEER SPLIT SYSTEM AIR CONDITIONER

FORM NO. 4AC13-100 (09/2019)



### FEATURES

- R410a Refrigerant
- 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\*

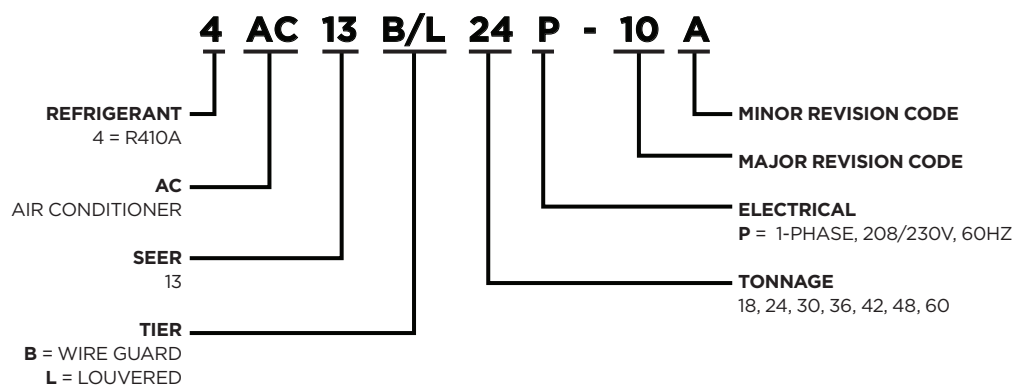
*\*Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults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

### NOTE:

For the latest AHRI system matches please visit [www.alliedratings.com](http://www.alliedratings.com) or [www.AHRIdirectory.org](http://www.AHRIdirectory.org)



## MODEL NUMBER GUIDE



## PHYSICAL AND ELECTRICAL DATA

| Model        | Voltage/Hz/Phase | Voltage Range | Min. Circuit Amp. | Max. Over Current Device (amps) <sup>†</sup> | Compressor        |                     | Outdoor Fan Motor |          |          |
|--------------|------------------|---------------|-------------------|----------------------------------------------|-------------------|---------------------|-------------------|----------|----------|
|              |                  |               |                   |                                              | Rated Load (amps) | Locked Rotor (amps) | Rated Load (amps) | Rated HP | Nom. RPM |
| 4AC13*18P-10 | 208-230/60/1     | 197-253       | 10.9              | 15                                           | 8.1               | 39                  | 0.7               | 1/10     | 1010     |
| 4AC13*24P-10 | 208-230/60/1     | 197-253       | 14.1              | 20                                           | 10.7              | 53                  | 0.7               | 1/10     | 1010     |
| 4AC13*30P-10 | 208-230/60/1     | 197-253       | 15.6              | 25                                           | 11.6              | 59                  | 1.1               | 1/5      | 1090     |
| 4AC13*36P-10 | 208-230/60/1     | 197-253       | 20.1              | 35                                           | 15.2              | 70                  | 1.1               | 1/5      | 1090     |
| 4AC13*42P-10 | 208-230/60/1     | 197-253       | 28.1              | 45                                           | 21.1              | 90                  | 1.7               | 1/4      | 825      |
| 4AC13*48P-10 | 208-230/60/1     | 197-253       | 31.9              | 50                                           | 24.1              | 100                 | 1.7               | 1/4      | 825      |
| 4AC13*60P-10 | 208-230/60/1     | 197-253       | 29.4              | 60                                           | 22.1              | 120                 | 1.7               | 1/4      | 825      |

\* = B or L    B = Wire Guard    L = Louvered

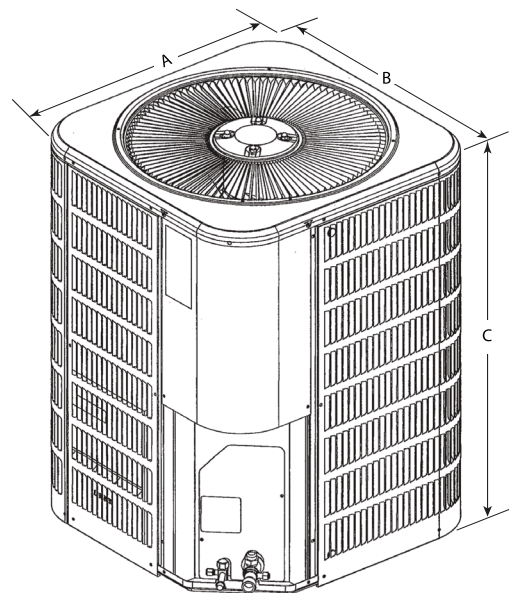
<sup>†</sup>    Overcurrent protection device

## UNIT DIMENSIONS (IN.)

| Model        | Dimensions (inch) |           |            | Weight (lbs.) |          |
|--------------|-------------------|-----------|------------|---------------|----------|
|              | A - Width         | B - Depth | C - Height | Wire Guard    | Louvered |
| 4AC13*18P-10 | 24.25             | 24.25     | 25         | 125           | 136      |
| 4AC13*24P-10 | 24.25             | 24.25     | 25         | 126           | 137      |
| 4AC13*30P-10 | 24.25             | 24.25     | 29         | 139           | 147      |
| 4AC13*36P-10 | 24.25             | 24.25     | 29         | 141           | 149      |
| 4AC13*42P-10 | 28.25             | 28.25     | 29         | 184           | 194      |
| 4AC13*48P-10 | 28.25             | 28.25     | 33         | 181           | 192      |
| 4AC13*60P-10 | 28.25             | 28.25     | 29         | 194           | 205      |

\* = B or L    B = Wire Guard    L = Louvered

Note: Dimensions listed are unit sizes w/o packaging



## SOUND RATINGS

| Model        | Sound Power <sup>1</sup> | Estimated Sound Pressure (dBA) <sup>2</sup> |                        |                        |
|--------------|--------------------------|---------------------------------------------|------------------------|------------------------|
|              |                          | Approximate Distance <sup>3</sup>           |                        |                        |
|              |                          | 3.3 Feet<br>(1 Meter)                       | 6.6 Feet<br>(2 Meters) | 9.8 Feet<br>(3 Meters) |
| 4AC13*18P-10 | 74                       | 66                                          | 60                     | 56                     |
| 4AC13*24P-10 | 74                       | 66                                          | 60                     | 56                     |
| 4AC13*30P-10 | 74                       | 66                                          | 60                     | 56                     |
| 4AC13*36P-10 | 74                       | 66                                          | 60                     | 56                     |
| 4AC13*42P-10 | 79                       | 71                                          | 65                     | 61                     |
| 4AC13*48P-10 | 79                       | 71                                          | 65                     | 61                     |
| 4AC13*60P-10 | 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) <sup>5</sup> | Refrigerant Connection |        |                           |        | Refrigerant Line Size     |                         | Indoor Expansion Device |                  |
|---------------|--------------------------|------------------------|--------|---------------------------|--------|---------------------------|-------------------------|-------------------------|------------------|
|               |                          | Outdoor                |        | Indoor (DTC) <sup>6</sup> |        |                           |                         |                         |                  |
|               |                          | Suction                | Liquid | Suction                   | Liquid | Suction                   | Liquid                  | Piston                  | TXV <sup>1</sup> |
| 4AC13*18P-10  | 65                       | 5/8                    | 3/8    | 3/4                       | 3/8    | 5/8 or 3/4 <sup>3</sup>   | 3/8 or 1/4 <sup>2</sup> | 0.053                   | H4TXV01          |
| 4AC13*24P-10  | 62                       | 5/8                    | 3/8    | 3/4                       | 3/8    | 5/8 or 3/4 <sup>3</sup>   | 3/8 or 1/4 <sup>2</sup> | 0.057                   | H4TXV01          |
| 4AC13*30P-10  | 82                       | 3/4                    | 3/8    | 3/4                       | 3/8    | 3/4                       | 3/8                     | 0.063                   | H4TXV01          |
| 4AC13*36P-10  | 84                       | 3/4                    | 3/8    | 7/8                       | 3/8    | 3/4                       | 3/8                     | 0.072                   | H4TXV02          |
| 4AC13*42P-10  | 104                      | 3/4                    | 3/8    | 7/8                       | 3/8    | 3/4                       | 3/8                     | 0.074                   | H4TXV02          |
| 4AC13*48P-10  | 124                      | 7/8                    | 3/8    | 7/8                       | 3/8    | 7/8                       | 3/8                     | 0.082                   | H4TXV02          |
| 4AC13*60P-10  | 144                      | 7/8                    | 3/8    | 7/8                       | 3/8    | 7/8 or 1 1/8 <sup>4</sup> | 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 Charged for 15 ft of line set

6 DTC = Designated Tested Combination

COOLING PERFORMANCE WITH DTC<sup>1</sup>

| Outdoor Model | Indoor Model            | Capacity (BTUH) | EER  | SEER |
|---------------|-------------------------|-----------------|------|------|
| 4AC13*18P-10  | E(C,M,U)1P24(A,B)+TDR   | 17600           | 11   | 13   |
| 4AC13*24P-10  | E(C,M,U)1P24(A,B)+TDR   | 22800           | 11   | 13   |
| 4AC13*30P-10  | E(C,M,U)1P24(A,B)+TDR   | 28000           | 10.7 | 13   |
| 4AC13*36P-10  | E(C,H,M,U)1P36(B,C)+TDR | 34000           | 10.5 | 13   |
| 4AC13*42P-10  | E(C,H,M,U)1P43C+TDR     | 40000           | 10.7 | 13   |
| 4AC13*48P-10  | E(C,H,U)1P49C+TDR       | 47000           | 11   | 13   |
| 4AC13*60P-10  | E(C,H,U)1P49C+TDR       | 57000           | 10.7 | 13   |

1 DTC = Designated Tested Combination

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## COOLING PERFORMANCE EXTENDED RATINGS

| Outdoor Model | Indoor Model                  | Indoor Temp DB/WB °F | Outdoor Air Temperature Entering Outdoor Coil |      |      |        |      |      |        |      |      |        |      |      |        |      |      |
|---------------|-------------------------------|----------------------|-----------------------------------------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|
|               |                               |                      | 65                                            |      |      | 82     |      |      | 95     |      |      | 105    |      |      | 115    |      |      |
|               | Piston or Field Installed TXV |                      | Btuh                                          | S/T  | kW   | Btuh   | S/T  | kW   | Btuh   | S/T  | kW   | Btuh   | S/T  | kW   | Btuh   | S/T  | kW   |
| 4AC13*18P     | 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 |
| 4AC13*24P     | 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 |
| 4AC13*30P     | 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 |
| 4AC13*36P     | 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 |
| 4AC13*42P     | 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 |
| 4AC13*48P     | 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 |
| 4AC13*60P     | 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.