

| Submittal Data: SAP18HP230V1A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  | 18,000 BTU/H Wall Mounted Heat- Pump System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|
| Job Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  | Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Date |
| Purchaser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  | Engineer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |      |
| Submitted To                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  | For <input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |      |
| Unit Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  | Schedule No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |      |
| <div>GENERAL FEATURES</div> <div><div><div>- Variable Speed (Inverter) Two-Stage Compressor</div><div>- Low Ambient Heating ( down to -22° F)</div><div>- Wi Fi Controls</div><div>- 7 Indoor Fan Speeds</div><div>- 4 Way Airflow Operation</div><div>- Wireless Remote with LCD Display</div><div>- Copper Tube/Aluminum Fins w/ Acrylic Resin Anti-Corrosion Coating on both ID and OD units</div><div>- I-FEEL Function</div><div>- 5 year Limited Parts Warranty</div></div><div></div></div> |  |  | <div></div> <div>AHRI Certified Ref No: 10157570</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |      |
| System Ratings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  | Indoor Unit Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |      |
| <div>Cooling</div> <div><div>Rated Capacity</div><div>18,000 BTU/H</div></div> <div><div>Capacity Range</div><div>4,094 -21,837 BTU/H</div></div> <div><div>Power Input (Max)</div><div>2,500 W</div></div> <div><div>SEER</div><div>24.5</div></div> <div><div>EER</div><div>13.5</div></div>                                                                                                                                                                                                                                                                                      |  |  | <div><div>Fan Motor</div><div>Type</div><div>Cross-flow</div></div> <div><div></div><div>Output Power</div><div>60 W</div></div> <div><div></div><div>FLA</div><div>0.24 A</div></div> <div><div>Airflow</div><div>(Low/High)</div><div>353/736 CFM</div></div> <div><div>Air Throw</div><div>(Max)</div><div>29.5 ft</div></div> <div><div>Sound Level</div><div>Cooling (Low/High)</div><div>34/51 dB(A)</div></div> <div><div></div><div>Heating (Low/High)</div><div>34/51 dB(A)</div></div> <div><div>Dehumidification</div><div></div><div>3.8 pt/hr</div></div>                                                                                                                                            |  |      |
| <div>Heating at 47° F</div> <div><div>Rated Capacity</div><div>18,000 BTU/H</div></div> <div><div>Capacity Range</div><div>4,094 -24,566 BTU/H</div></div> <div><div>Power Input (Max)</div><div>2,500 W</div></div> <div><div>HSPF</div><div>12.0</div></div> <div><div>COP</div><div>3.5</div></div>                                                                                                                                                                                                                                                                              |  |  | Outdoor Unit Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |      |
| <div>Heating at 17° F</div> <div><div>Rated Capacity</div><div>14,200 BTU/H</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  | <div><div>Compressor</div><div>Type</div><div>DC Inverter Driven 2-Stage Rotary</div></div> <div><div></div><div>RLA</div><div>15.5 A</div></div> <div><div>Fan Motor</div><div>Output Power</div><div>90 W</div></div> <div><div></div><div>RLA</div><div>0.65 A</div></div> <div><div>Sound Level</div><div></div><div>59 dB(A)</div></div>                                                                                                                                                                                                                                                                                                                                                                     |  |      |
| <div>Operating Range</div> <div><div>Cooling</div><div>(Max)</div><div>129°F (54°C)</div></div> <div><div></div><div>(Min)</div><div>0°F (-18°C)</div></div> <div><div>Heating</div><div>(Max)</div><div>75°F (24°C)</div></div> <div><div></div><div>(Min)</div><div>-22°F (-30°C)</div></div>                                                                                                                                                                                                                                                                                     |  |  | <div>Refrigerant Piping Data</div> <div><div>Gas Pipe Size (OD)</div><div></div><div>5/8-in</div></div> <div><div>Liquid Pipe Size (OD)</div><div></div><div>1/4-in</div></div> <div><div>Connection Method</div><div></div><div>Flared</div></div> <div><div>Factory Charge</div><div></div><div>R410A/70.6 oz</div></div> <div><div>Additional Charge</div><div></div><div>0.50 oz/ft</div></div> <div><div>Pre-Charge Length</div><div></div><div>25-ft</div></div> <div><div>MAX Refrigerant Pipe Length</div><div></div><div>131-ft</div></div> <div><div>MIN Refrigerant Pipe Length</div><div></div><div>10-ft</div></div> <div><div>MAX Refrigerant Pipe Elevation</div><div></div><div>66-ft</div></div> |  |      |
| <div>Power Supply</div> <div><div>Normal Operational Voltage</div><div>208/230 V, 1 Phase, 60 Hz</div></div> <div><div>Voltage Range</div><div>187 - 253 V</div></div> <div><div>Main Power Wire Size</div><div>12-2 AWG</div></div> <div><div>Interconnecting Cable Wire Size</div><div>14-4 AWG</div></div> <div><div>MCA</div><div>22 A</div></div> <div><div>MOCP/Breaker Size</div><div>30 A</div></div>                                                                                                                                                                       |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |      |
| <div></div>                                                                                                                                       |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |      |

| SYSTEM FEATURES                        |                              |
|----------------------------------------|------------------------------|
| Inverter Type                          | G10                          |
| Ultra Low Frequency Torque Control     | Yes                          |
| Power Factor Correction                | Yes                          |
| Compressor Type                        | High Eff. Two Stage Rotary   |
| Refrigerant Type                       | R410A                        |
| Basepan With Electric Heater           | YES                          |
| Compressor With Electric Heater        | YES                          |
| Indoor & Outdoor Fin Coating           | Acrylic Resin/Anti-Corrosion |
| Intelligent Defrosting                 | YES                          |
| Intelligent Preheating                 | YES                          |
| Low Voltage Startup                    | YES                          |
| Memory/Power Failure Recovery          | YES                          |
| Self Diagnosis                         | YES                          |
| Wired Controller Interface             | NO                           |
| WIFI Interface Capable                 | YES                          |
| Indoor Fan Type                        | Crossflow                    |
| Multi Fan Speeds                       | 7 Speeds                     |
| Indoor Unit Display                    | YES                          |
| Advance Filter                         | Optional (see Filter Kits)   |
| Auxiliary Electrical Heater            | NO                           |
| Ventilation (Outdoor Air)              | NO                           |
| REMOTE CONTROLLER FUNCTIONS            |                              |
| Auto Mode                              | YES                          |
| Auto Fan                               | YES                          |
| Auto Swing (Horizontal Auto Swing)     | YES                          |
| Auto Swing - 180°(Vertical Auto Swing) | YES                          |
| Clock on Remote Controller             | YES                          |
| Dry Mode                               | YES                          |
| Dry Anti-Mildew (X-Fan) Mode           | YES                          |
| Energy Saving Mode                     | NO                           |
| Dirty Filter Alert                     | NO                           |
| Fan Speed Control (7 speeds)           | YES                          |
| I Feel Function                        | YES                          |
| Privacy Lock on Remote Controller      | YES                          |
| Quiet Mode                             | YES                          |
| Room Temperature Display               | NO                           |
| Sleep Mode                             | YES                          |
| 4 Sleep Modes Options                  | YES                          |
| Timer Mode                             | YES                          |
| Turbo Mode                             | YES                          |
| Display On/Off Control                 | YES                          |
| Freeze Guard Mode                      | NO                           |
| Display On/Off Control                 | YES                          |
| Freeze Guard Mode                      | YES                          |
| Power Failure Mode                     | YES                          |

## COOLING PERFORMANCE (BtuH)\*

| Outdoor<br>Ambient<br>Temperature<br>(DB) | Indoor Entering Air Temperatures |       |         |       |         |       |
|-------------------------------------------|----------------------------------|-------|---------|-------|---------|-------|
|                                           | 68°F DB                          |       | 73°F DB |       | 80°F DB |       |
|                                           | 57°FWB                           |       | 61°FWB  |       | 67°FWB  |       |
|                                           | TC                               | SHC   | TC      | SHC   | TC      | SHC   |
| 0°F                                       | 8866                             | 6585  | 9288    | 7023  | 10609   | 8187  |
| 5°F                                       | 10366                            | 8085  | 10788   | 8523  | 12109   | 9687  |
| 14°F                                      | 11804                            | 9207  | 12500   | 9875  | 13834   | 11067 |
| 23°F                                      | 12749                            | 9944  | 13851   | 10942 | 15671   | 12537 |
| 32°F                                      | 13249                            | 10334 | 14339   | 11328 | 16276   | 13021 |
| 41°F                                      | 13902                            | 10843 | 14927   | 11792 | 16608   | 13287 |
| 50°F                                      | 14873                            | 11601 | 15848   | 12520 | 17182   | 13746 |
| 59°F                                      | 15755                            | 12289 | 16905   | 13355 | 17643   | 14115 |
| 68°F                                      | 16239                            | 12667 | 17382   | 13732 | 18241   | 14593 |
| 77°F                                      | 16904                            | 13185 | 18104   | 14302 | 19025   | 15220 |
| 86°F                                      | 16449                            | 12830 | 17708   | 13990 | 18645   | 14916 |
| 95°F                                      | 15825                            | 12343 | 17269   | 13642 | 18196   | 14557 |
| 104°F                                     | 15503                            | 12093 | 17139   | 13540 | 18083   | 14467 |
| 113°F                                     | 15121                            | 11794 | 14707   | 11619 | 17988   | 14390 |
| 122°F                                     | 14958                            | 11667 | 15259   | 12054 | 17133   | 13706 |
| 129°F                                     | 14103                            | 10812 | 14404   | 11199 | 16278   | 12851 |

## HEATING PERFORMANCE (BtuH)\*

| Outdoor<br>Ambient<br>Temperature<br>(DB) | Indoor Entering Air Temperatures |     |         |     |         |     |
|-------------------------------------------|----------------------------------|-----|---------|-----|---------|-----|
|                                           | 68°F DB                          |     | 73°F DB |     | 80°F DB |     |
|                                           | 57°FWB                           |     | 61°FWB  |     | 67°FWB  |     |
|                                           | TC                               | SHC | TC      | SHC | TC      | SHC |
| -22°F                                     | 10048                            |     | 9645    |     | 9339    |     |
| -13°F                                     | 13482                            |     | 13079   |     | 12773   |     |
| -4°F                                      | 17398                            |     | 16995   |     | 16689   |     |
| 0°F                                       | 18239                            |     | 17836   |     | 17530   |     |
| 6°F                                       | 20634                            |     | 20167   |     | 19693   |     |
| 10°F                                      | 21509                            |     | 21007   |     | 20700   |     |
| 16°F                                      | 23470                            |     | 23168   |     | 22861   |     |
| 19°F                                      | 24225                            |     | 23930   |     | 23562   |     |
| 24°F                                      | 24337                            |     | 24035   |     | 23928   |     |
| 32°F                                      | 24600                            |     | 24298   |     | 24092   |     |
| 41°F                                      | 24908                            |     | 24590   |     | 22183   |     |
| 43°F                                      | 25072                            |     | 24770   |     | 24463   |     |
| 47°F                                      | 24315                            |     | 24012   |     | 23806   |     |
| 53°F                                      | 23502                            |     | 23199   |     | 22993   |     |
| 59°F                                      | 22792                            |     | 22510   |     | 22333   |     |
| 64°F                                      | 21673                            |     | 21470   |     | 21164   |     |
| 70°F                                      | 20433                            |     | 20190   |     | 19964   |     |
| 75°F                                      | 19229                            |     | 18977   |     | 18770   |     |
| 78°F                                      | 18674                            |     | 18239   |     | 17937   |     |

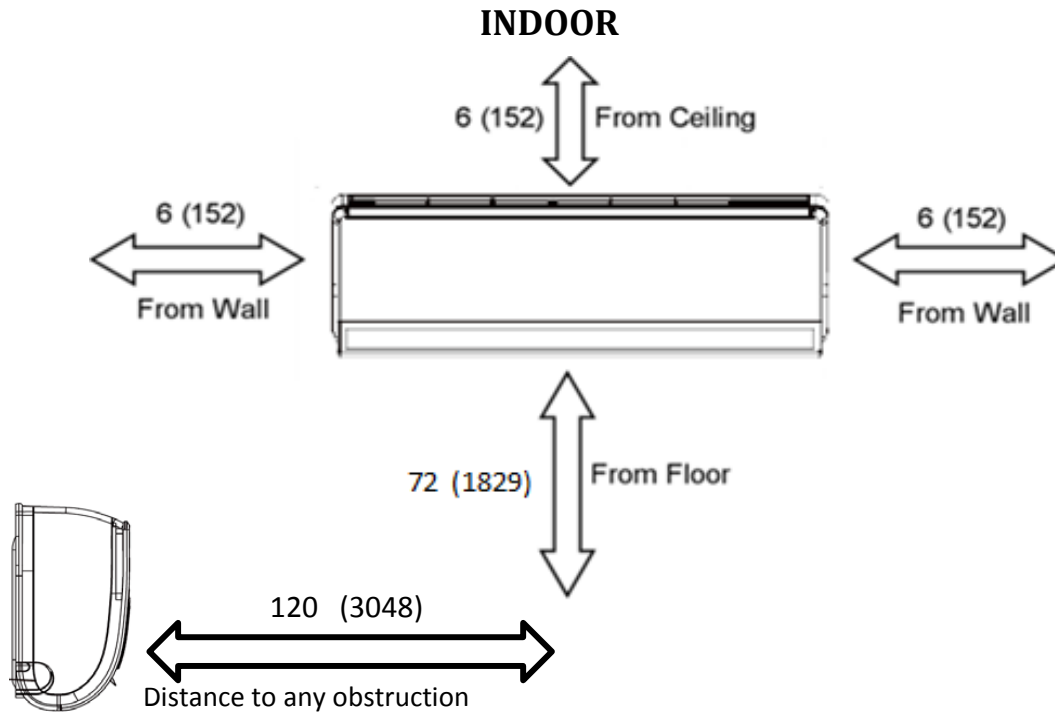
\* Maximum system capacity

TC- Total Capacity ( BtuH)

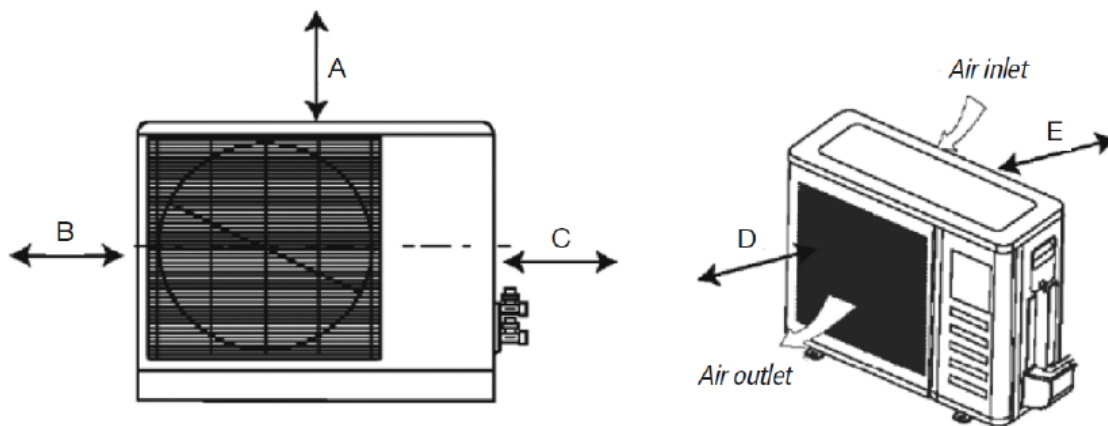
SHC- Sensible Capacity (BtuH)

MINIMUM SPACING REQUIREMENTS

Units: inch (mm)



**Minimum Outdoor Clearances**



| Outdoor Unit | Minimum Distances<br>in (mm) |
|--------------|------------------------------|
| A            | 20 (500)                     |
| B            | 12 (305)                     |
| C            | 20 (500)                     |
| D            | 80 (2032)                    |
| E            | 12 (305)                     |



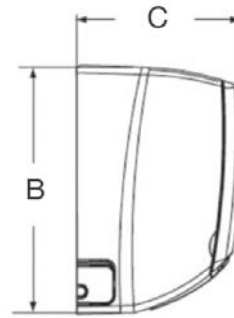
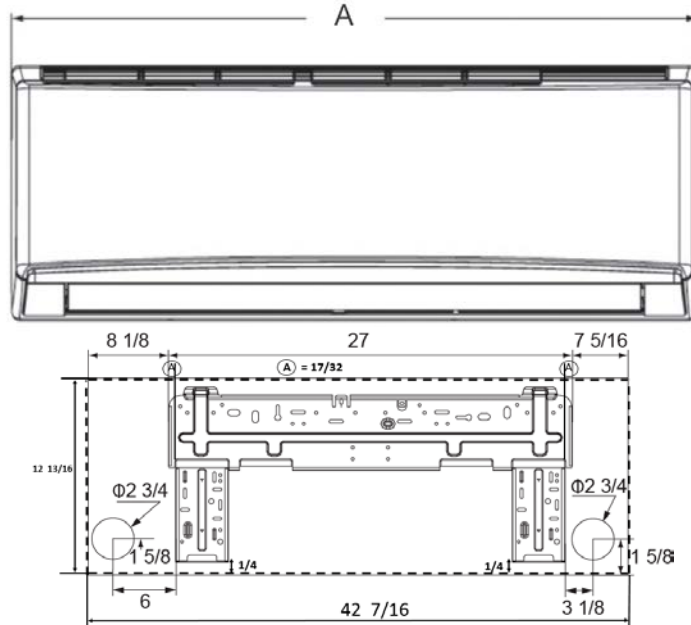
## DIMENSIONAL SPECIFICATIONS

**SAP18HP230V1A**

### INDOOR UNIT DIMENSIONS

Units: inch

Model No: SAP18HP230V1AH



| Dimensions |      |
|------------|------|
| A          | 42.5 |
| B          | 12.8 |
| C          | 9.7  |

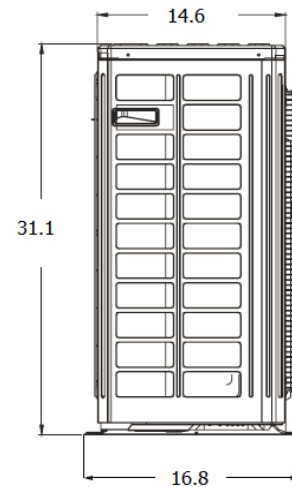
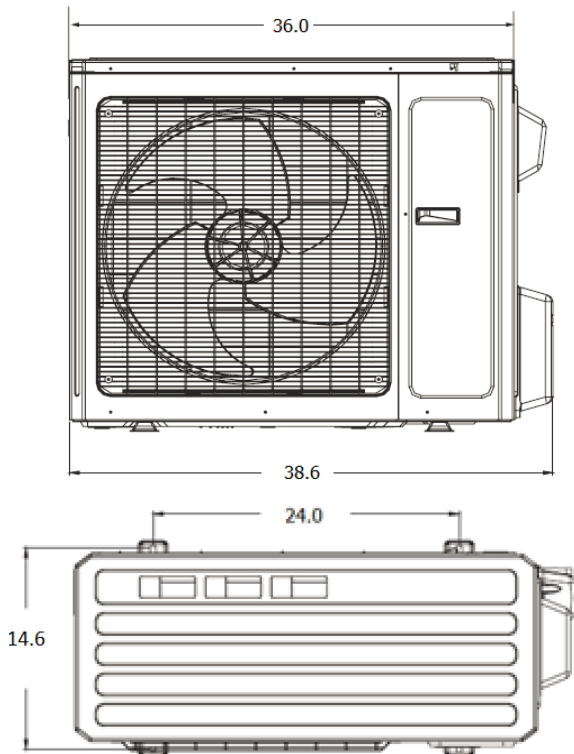
Weight (Net/Shipping) 36.4/44.1 LBS

|                   |                  |
|-------------------|------------------|
| Liquid Line Valve | 1/4-in OD Flared |
| Gas Line Valve    | 5/8-in OD Flared |
| Drain Connector   | 5/8-in OD        |

### OUTDOOR UNIT DIMENSIONS

Units: inch

Model No: SAP18HP230V1AO



|                   |                  |
|-------------------|------------------|
| Liquid Line Valve | 1/4-in OD Flared |
| Gas Line Valve    | 5/8-in OD Flared |

Weight (Net/Shipping) 141.1/152.1 LBS

#### Notes

1. Recommended Interconnecting Cable Type 14 AWG 4 Stranded Copper Conductors THHN 600V Wire
2. Power wiring cable size must comply with applicable national and local codes.
3. Test conditions are based on AHRI 210/240.

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