

Job Name

Purchaser

Submitted to

Unit Designation

Location

Engineer

Reference

Approval

Construction

Schedule #

Specifications

|                               |                                           |                                                                                                                                                                                      |                                         |
|-------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Model                         | Indoor Unit Model Number (US Code)        |                                                                                                                                                                                      | AC012KNLDCH/AA (CNH12LDK)               |
|                               | Outdoor Unit Model Number (US Code)       |                                                                                                                                                                                      | AC012KXADCH/AA (CXH12ADK)               |
| Performance                   | Nominal Capacity*                         | Cooling / Heating (Btu/h)                                                                                                                                                            | 12,000 / 14,000                         |
|                               | Capacity Range*                           | Cooling (Btu/h)                                                                                                                                                                      | 3,400 - 15,300                          |
|                               |                                           | Heating (Btu/h)                                                                                                                                                                      | 3,000 - 16,200                          |
|                               | SEER / EER                                |                                                                                                                                                                                      | 20 / 12                                 |
|                               | COP (nominal heating)                     |                                                                                                                                                                                      | 3.16                                    |
|                               | HSPF                                      |                                                                                                                                                                                      | 10.5                                    |
|                               | AHRI Certification Number                 |                                                                                                                                                                                      | 8715730                                 |
| Condensate (pints/h)          |                                           | 3.38                                                                                                                                                                                 |                                         |
| Power                         | Voltage                                   | ø / V / Hz                                                                                                                                                                           | 1 / 208-230 / 60                        |
|                               | Working Voltage Range (VAC)               |                                                                                                                                                                                      | 176 - 254 (max. 3% deviation from each) |
|                               | Operating Current<br>(min. / std. / max.) | Cooling (A)                                                                                                                                                                          | 1.6 / 4.7 / 7.1                         |
|                               |                                           | Heating (A)                                                                                                                                                                          | 1.4 / 6.0 / 6.8                         |
|                               | Max. Breaker                              | Amps                                                                                                                                                                                 | 15                                      |
|                               | Min. Circuit Ampacity (A)                 |                                                                                                                                                                                      | 10.6                                    |
| Dimensions                    | W X H X D<br>(in.)                        | Indoor Unit                                                                                                                                                                          | 27 9/16 X 7 13/16 X 23 5/8              |
|                               |                                           | Outdoor Unit                                                                                                                                                                         | 31 1/8 X 21 9/16 X 11 1/4               |
|                               | Weight<br>(lbs.)                          | Indoor Unit                                                                                                                                                                          | 44.0                                    |
|                               |                                           | Outdoor Unit                                                                                                                                                                         | 79.8                                    |
|                               | Duct Connections<br>(inches)              | Supply (W X H)                                                                                                                                                                       | 26 X 6                                  |
|                               |                                           | Return (W X H, ID)                                                                                                                                                                   | 22 11/16 X 6 11/16                      |
| Heat Exchanger                | Indoor and Outdoor Unit                   | Type                                                                                                                                                                                 | Aluminum Fin / Copper Tube              |
|                               |                                           | Pipe Diameter (in.)                                                                                                                                                                  | 1/4                                     |
| Sound Pressure Level          | Indoor Unit dB(A)                         | L / M / H                                                                                                                                                                            | 27 / 31 / 34                            |
|                               | Outdoor Unit dB(A)                        | Cooling / Heating (high)                                                                                                                                                             | 47 / 48                                 |
| Operating Temperatures °F(°C) | Outdoor                                   | Cooling                                                                                                                                                                              | 23 ~ 115°F(-5 ~ 46°C)                   |
|                               |                                           | Heating                                                                                                                                                                              | 0 ~ 115°F(-18 ~ 46°C) w/ baffle         |
|                               | Indoor                                    | Cooling                                                                                                                                                                              | -4 ~ 75°F(-20 ~ 24°C)                   |
|                               |                                           | Heating                                                                                                                                                                              | 61 ~ 90°F(16 ~ 32°C)                    |
| Pipe Connections              | Indoor & Outdoor                          | High side X low side (flare)                                                                                                                                                         | 1/4 X 3/8                               |
|                               | Maximum Length                            | Feet                                                                                                                                                                                 | 65.6                                    |
|                               | Maximum Vertical Separation (ft.)         |                                                                                                                                                                                      | 49                                      |
|                               | Condensate Connection                     |                                                                                                                                                                                      | 1 1/4" OD, 1" ID                        |
| Refrigerant                   | Type                                      |                                                                                                                                                                                      | R410A                                   |
|                               | Control Method                            |                                                                                                                                                                                      | Electronic Expansion Valve              |
|                               | Factory Charge                            | oz.                                                                                                                                                                                  | 36.96                                   |
|                               | Charged for                               |                                                                                                                                                                                      | 25 ft                                   |
| Additional Refrigerant        |                                           | 0.11 oz./ft. over 25 ft                                                                                                                                                              |                                         |
| Compressor                    | Type                                      |                                                                                                                                                                                      | Inverter Driven, BLDC Rotary            |
|                               | RLA                                       | A                                                                                                                                                                                    | 8.1                                     |
| Evaporator Fan                | Type                                      |                                                                                                                                                                                      | BLDC (1) With Sirocco Fan (2)           |
|                               | Air Volume                                | CFM (L / M / H)                                                                                                                                                                      | 318 / 370 / 425                         |
|                               | Output                                    | Watts                                                                                                                                                                                | 69                                      |
|                               | FLA                                       | A                                                                                                                                                                                    | 0.31                                    |
|                               | Static Pressure                           | Standard ("WC)                                                                                                                                                                       | 0.1                                     |
| Min. / Max. ("WC)             |                                           | 0 / .24                                                                                                                                                                              |                                         |
| Condenser Fan                 | Motor                                     |                                                                                                                                                                                      | BLDC With Axial Type Fan (1)            |
|                               | FLA / Watts / Max. CFM                    |                                                                                                                                                                                      | 0.17 / 39W / 1,271 CFM                  |
| Safety                        | Certifications                            | ETL (UL 1995)                                                                                                                                                                        |                                         |
|                               | Devices                                   | PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing |                                         |

\* Certified in accordance with the AHRI Unitary Small Air-Source Heat Pumps (USHP) Certification Program which is based on the latest edition of AHRI Standard 210/240.



- Horizontal discharge airflow
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire
- Auto-restart after power loss
- The outdoor unit shall have a snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The indoor and outdoor units shall have a removable EEPROM that stores system programming information, unit name, and other data
- The outdoor unit shall have a night time quiet mode option to reduce operating sound during the night.
- Electrostatic, washable filter included as standard.
- Built in condensate pump with maximum 29" lift and float switch that disables indoor unit during overflow detection

Construction

The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability

The indoor unit shall be insulated, galvanized steel.

Heat Exchanger

The indoor and outdoor unit heat exchanger shall be mechanically bonded aluminum fin to copper tube

Controls

Control signal shall be a DDC type signal

Interconnect control wire between outdoor and indoor unit shall be 16AWG X 2 shielded

Wired or wireless controllers must be purchased separately

Controls shall integrate with a BMS system

No additional interface modules/adapters are required when connecting to Samsung NASA DVM S central control options.

Refrigerant System

The refrigerant shall be R410A

The compressor shall be hermetically sealed, inverter controlled, BLDC Rotary

Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit

Soft-start to reduce current demand during compressor start

Warranty

10 Years compressor, 10 years parts, 1 year limited labor when registered

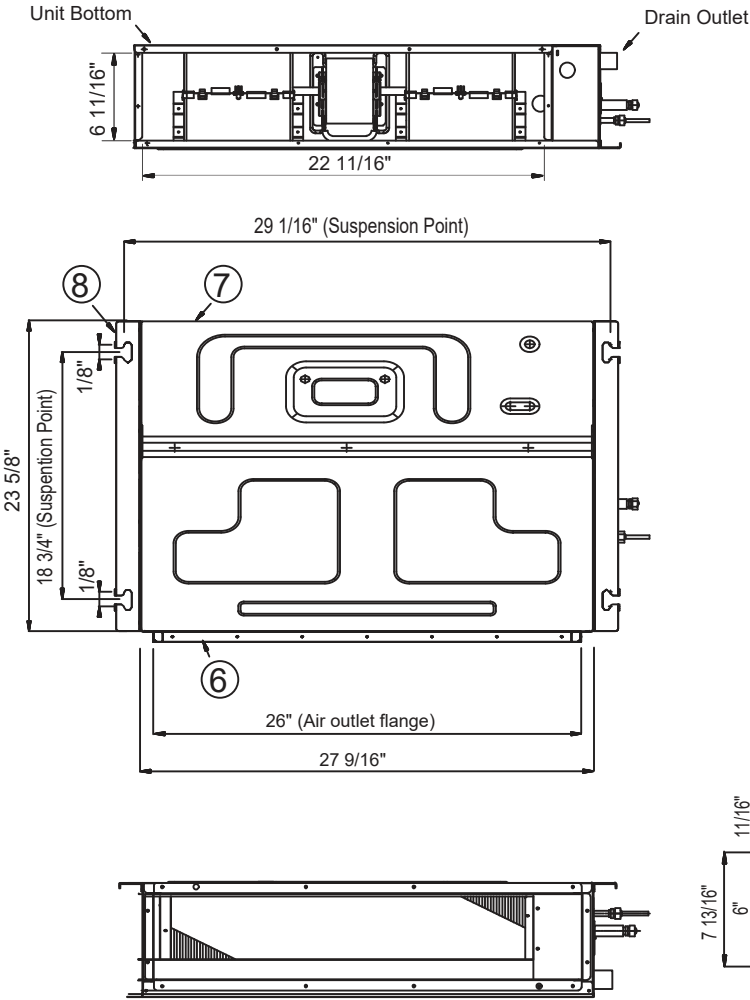
ATTENTION

This air handling unit is intended for free-air discharge or for connection to a duct supplying only one room. Improper installation could contribute to the spread of smoke or flame in the event of a fire.

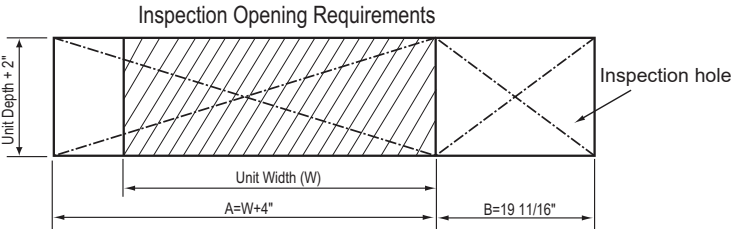
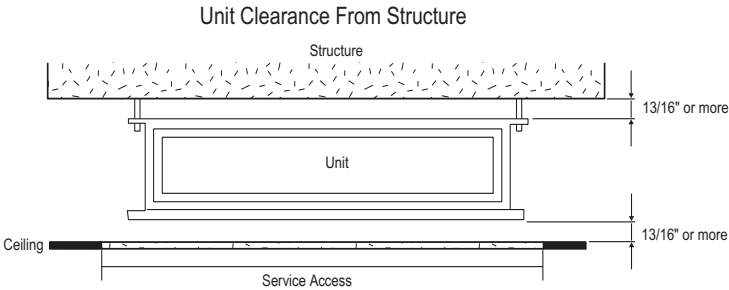
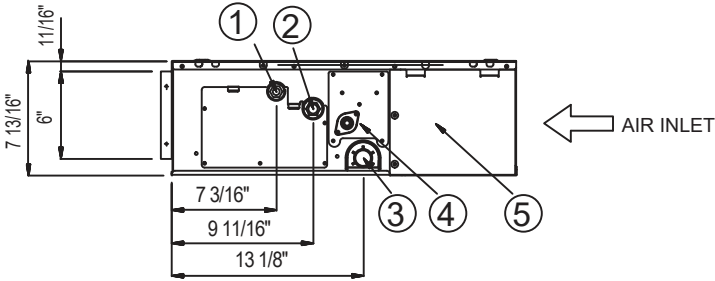
Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice. Refer to [www.ahridirectory.org](http://www.ahridirectory.org) for current reference numbers.

Optional Accessories

|                                                                    |                             |               |
|--------------------------------------------------------------------|-----------------------------|---------------|
| Filter Box                                                         |                             | FB-SLIM1      |
| Wired Controller                                                   | Simplified Touch Controller | MWR-SH11UN    |
|                                                                    | Advanced Wired Controller   | MWR-WG00UN    |
| Wireless Signal Control                                            | Wireless Signal Receiver    | MRK-A10N      |
|                                                                    | Wireless Controller         | AR-EH03U      |
| Wi-Fi Adapter                                                      |                             | MIM-H04UN     |
| External Temperature Sensor                                        |                             | MRW-TA        |
| External Contact Control                                           |                             | MIM-B14       |
| Wall Bracket (for outdoor unit)                                    |                             | CKN-250       |
| Wind Baffles                                                       | Front                       | WBF-3M        |
|                                                                    | Back                        | WBB-5M        |
| Line Sets - insulated and flared, interconnect cables included     |                             | 25' - ILS2506 |
|                                                                    |                             | 50' - ILS5006 |
| Thermostat Adaptor (for connection to a standard 24VAC thermostat) |                             | MIM-A60UN     |

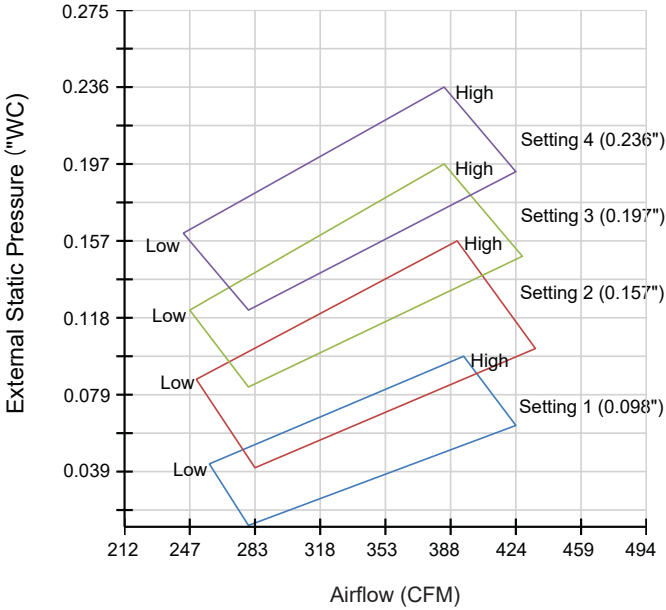


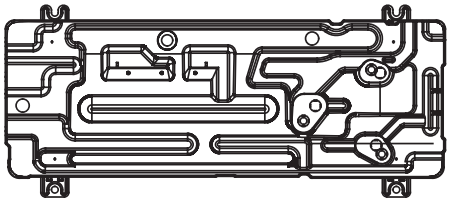
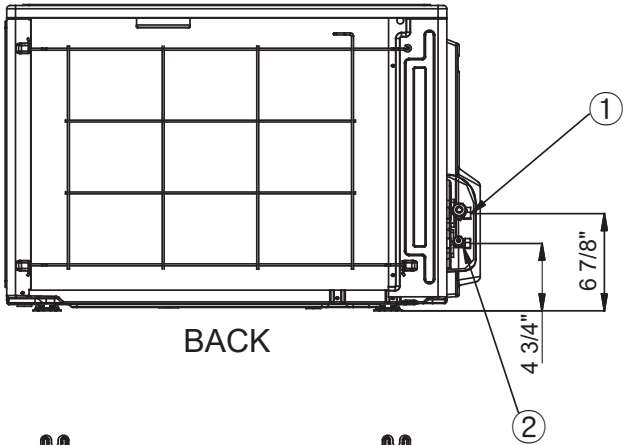
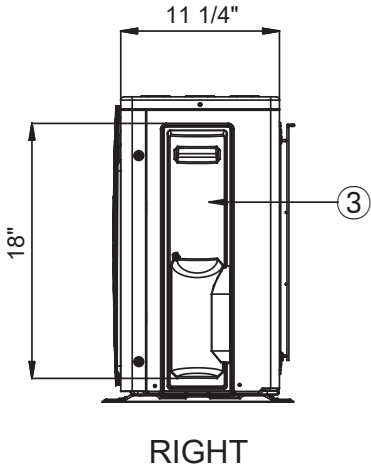
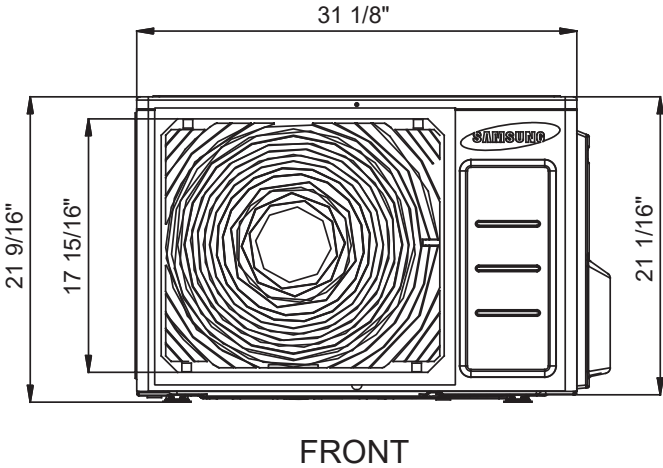
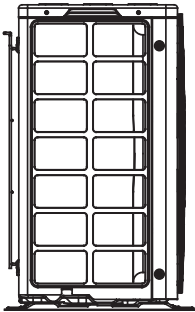
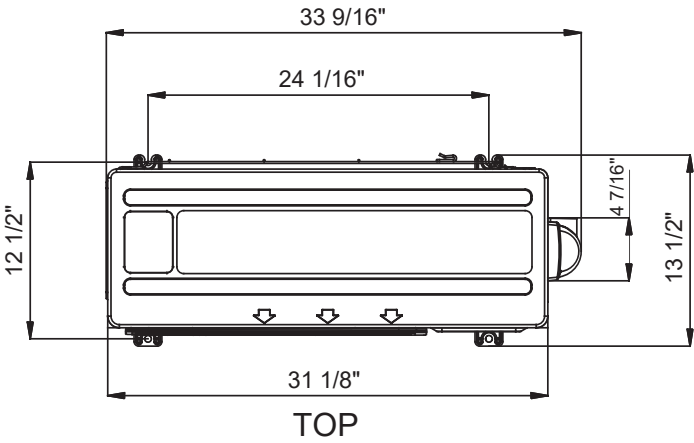
| No. | Name                                    | Description      |
|-----|-----------------------------------------|------------------|
| ①   | Liquid Pipe Connection                  | Ø 1/4" Flare     |
| ②   | Gas Pipe Connection                     | Ø 3/8" Flare     |
| ③   | Drain Pipe Connection (gravity drain)   | OD 1 1/4", ID 1" |
| ④   | Drain Pipe Connection (condensate pump) | OD 1", ID 3/4"   |
| ⑤   | Control Box                             | -                |
| ⑥   | Air Discharge Flange                    | -                |
| ⑦   | Air Inlet                               | -                |
| ⑧   | Suspension Hook                         | 5/16" - 3/8"     |



In applications where there is not a tile ceiling, an inspection hole is required.  
If height between ceiling and structure is 1.64' or more, inspection opening "B" is recommended.  
If height between ceiling and structure is less than 1.64', inspection opening "A" and "B" is recommended (verify state and local codes).

P-Q Curve





| No. | Name                                  | Description  |
|-----|---------------------------------------|--------------|
| ①   | Gas Pipe Connection                   | Ø 1/4" Flare |
| ②   | Liquid Pipe Connection                | Ø 3/8" Flare |
| ③   | Power and Comm. Wire Connection Cover | -            |