

Job Name

Purchaser

Submitted to

Unit Designation

Location

Engineer

Reference

Approval

Construction

Schedule #

| Specifications                                |   |                           |  |
|---|---|---------------------------|--|
| Model   | Indoor Unit Model Number (US Code)  |                           | AC048BNHDCH/AA (CNH48HDB)                                  |
|   | Outdoor Unit Model Number (US Code)   |                           | AC048BXADCH/AA (CXH48ADB)                                  |
| Performance <sup>1</sup>                      | Nominal Capacity  | Cooling / Heating (Btu/h) | 42,000 / 47,000  |
|   | Capacity Range  | Cooling (Btu/h)           | 12,500 -51,000   |
|   |   | Heating (Btu/h)           | 11,500 - 65,000  |
|   | SEER / EER  |                           | 16.3 / 8.0   |
|   | COP (nominal heating)   |                           | 2.8  |
|   | HSPF  |                           | 8.8  |
| AHRI Certification Number                     |   |                           | 207465469  |
| Power   | Voltage   | ø / V / Hz                | 1 / 208-230 / 60   |
|   | Working Voltage Range (VAC)   |                           | 176 - 254 (max. 3% deviation from each)                    |
|   | Operating Current (min. / std. / max.)  | Cooling (A)               | 5.2 / 26.6/ 28.8   |
|   |   | Heating (A)               | 4.1 / 25.1/ 32.0   |
|   | Max. Breaker  | Amps                      | 40   |
|   | Min. Circuit Ampacity (A)   |                           | 32.2   |
| Dimensions                                    | W X H X D (in.)   | Indoor Unit               | 51 3/16 X 11 13/16 X 27 9/16                               |
|   |   | Outdoor Unit              | 37 X 47 11/16 X 13   |
|   | Duct Connections (W X H)  | Supply (in.)              | 49 5/16 X 10 5/8   |
|   |   | Return (ID, in.)          | 49 5/16 X 10 5/8   |
|   | Weight (lbs.)   | Indoor Unit               | 97.0   |
|   |   | Outdoor Unit              | 191.8  |
| Sound Pressure Level                          | Indoor Unit dB(A)   | L / M / H                 | 41/ 43/ 45   |
|   | Outdoor Unit dB(A)  | Cooling / Heating (high)  | 56 / 58  |
| Operating Temperatures                        | Outdoor   | Cooling                   | 23 ~ 122°F (-5 ~ 50°C)<br>0 ~ 122°F (-18 ~ 50°C) w/ baffle |
|   |   | Heating                   | -4 ~ 75°F (-20 ~ 24°C)                                     |
|   | Indoor  | Cooling                   | 61 ~ 90°F (16 ~ 32°C)                                      |
|   |   | Heating                   | T ≤ 80°F (27°C)  |
| Pipe Connections                              | Indoor & Outdoor  | High side (flare)         | 3/8"   |
|   |   | Low side (flare)          | 5/8"   |
|   | Maximum (ft.)   |                           | 246  |
|   | Maximum Vertical Separation (ft.)   |                           | 98.4   |
| Condensate Connection (with included adapter) |   |                           | 1 1/16" ID for 3/4" PVC                                    |
| Refrigerant                                   | Type  |                           | R410A  |
|   | Control Method  |                           | Electronic Expansion Valve                                 |
|   | Factory Charge  | lbs.                      | 7.5  |
|   | Charged for   |                           | 24.6 ft  |
|   | Additional Refrigerant  |                           | 0.11 oz/ft over 24.6 ft                                    |
| Compressor                                    | Manufacturer  |                           | Samsung  |
|   | Type  |                           | Inverter Driven, Twin BLDC Rotary                          |
|   | RLA   | Amps                      | 20.9   |
| Evaporator Fan                                | Type  |                           | BLDC (1) With Sirocco Fan (3)                              |
|   | Air Volume  | CFM (L/M/H)               | 954 / 1130 / 1271 (at standard ESP)                        |
|   | Output (W) / FLA (A)  |                           | 244 W / 3.50 A   |
|   | Static Pressure   | Standard ("WC)            | 0.58   |
| Min. / Max. ("WC)                             |   | 0.12 - 0.80               |  |
| Condenser Fan                                 | Motor   |                           | BLDC With Axial Type Fan (2)                               |
|   | FLA / Watts / CFM (max.)  |                           | 1.25 A / 125 W / 3,532 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 |                           |  |

<sup>1</sup> 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.

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.



- General Information
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire
  - High-voltage terminal block temperature sensor to disable unit in the event of power connection overheating
  - Integral condensate pump with maximum 29" lift from bottom of the unit with check valve and float switch that disables indoor should condensate overflow be detected.
  - Auto-restart after power loss
  - Soft-start compressor minimizing current inrush
  - All heat exchangers shall be mechanically bonded aluminum fin to copper tube
  - The condensing unit heat exchanger salt spray test method: ASTM-B117-18 - the heat exchanger showed no unusual rust or corrosion development to 2,280 hours.

- Option settings
- The outdoor unit shall have snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
  - Night-time Quiet Mode: reduction of operational sound during (*automatic or manual activation*).
  - Emergency Temperature Output (ETO) function: when indoor unit is in error status or when room temperature exceeds configurable temperature level, the system outputs a signal to an external source, e.g., backup system, building management system, alert device (ex: status light, warning lamp, buzzer).
  - System can be set up as heating/cooling, cooling only, or heating only via outdoor unit option setting.
  - Maximum Current Control configurable from 50% - 100% via outdoor unit, wired controller, or central controller

- Indoor Fan
- Indoor fan is sirocco type
  - Three fan speed settings and auto setting
  - Smart pressure control feature that adjusts fan speed based on ESP delivering consistent heating and cooling power
  - The indoor unit shall have a smart-tuning function that can provide optimized comfort by allowing the occupant to offset the fan CFM curve with a wired remote controller (MWR-WG00UN) to increase or decrease airflow.
  - The indoor unit shall have automatic air volume scanning for simple setup and optimized comfort settings for the occupant.

- Construction
- Outdoor unit shall be galvanized steel with a baked-on powder coated finish for durability
  - Indoor Unit: Insulated, galvanized steel.

- Controls
- Control wiring shall be 2 X 16 AWG
  - No additional interface modules/adapters are required when connecting to Samsung central control options.
  - The unit shall be operated via a wireless or wired remote control with DDC type signal
  - Dual set temperature support when connected to MWR-WG00UN Advanced Wired Controller or central control options.
  - Wired or wireless controllers must be purchased separately

- Refrigerant System
- The compressor shall be hermetically sealed, inverter-controlled BLDC rotary type.
  - Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit

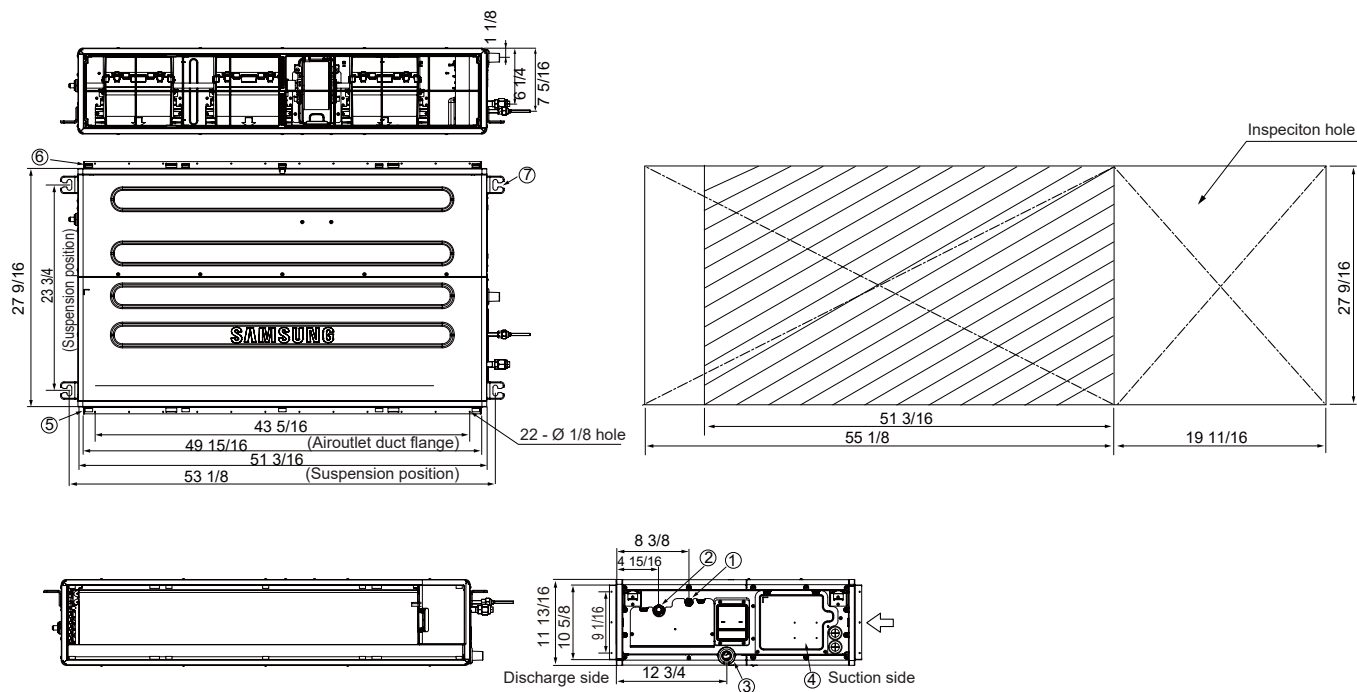
Warranty

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

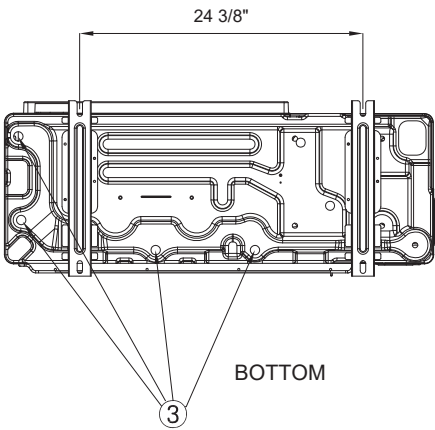
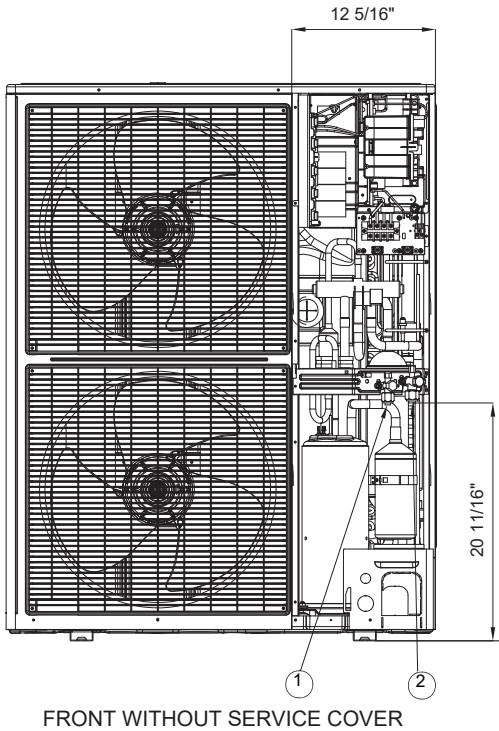
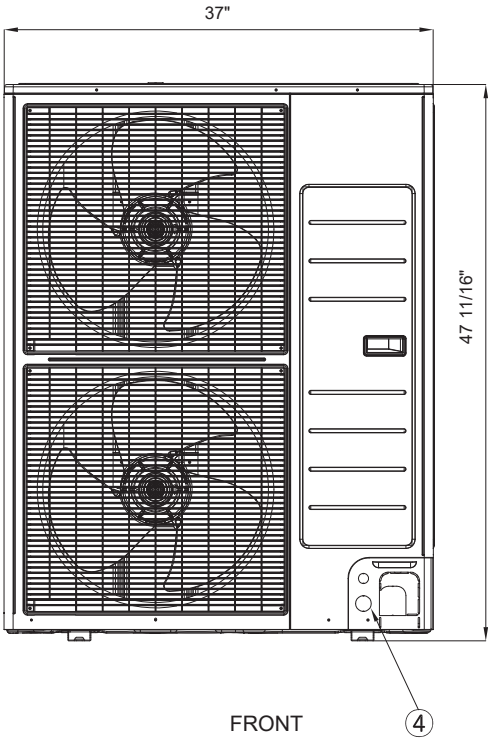
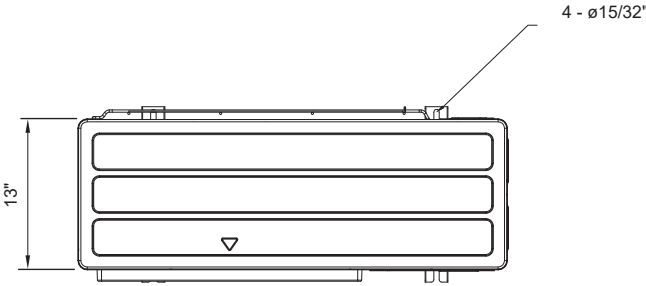


Optional Accessories

|  |                          |                |
|--|--------------------------|----------------|
| Wired Controller   | Advanced                 | MWR-WG00UN     |
|  | Touchscreen              | MWR-SH11UN     |
| Thermostat Adaptor (for connection to a standard 24VAC thermostat) |                          | MIM-A60UN      |
| Wireless Signal  | Wireless Signal Receiver | MRK-A10N       |
| Control  | Wireless Controller      | AR-EH04U       |
| Wi-Fi Adapter  |                          | MIM-H04UN      |
| External Temperature Sensor  |                          | MRW-TA         |
| Filter Box   |                          | FB-DS3         |
| External Contact Control   |                          | MIM-B14        |
| Wall Bracket (for outdoor unit)                                    |                          | CKN-250        |
| Wind Baffles   | Front                    | WBF-1M2        |
|  | Back                     | WBB-2M-B       |
| Hail Guard   |                          | TBD            |
| Line Sets - insulated and flared, interconnect cables included     |                          | 25' - ILS-2510 |
|  |                          | 50' - ILS-5010 |



| No. | Name                          | Description     |
|-----|-------------------------------|-----------------|
| ①   | Refrigerant Liquid Pipe       | Ø 3/8"          |
| ②   | Refrigerant Gas Pipe          | Ø 5/8"          |
| ③   | Condensate Drain              | 3/4" (OD 1.05") |
| ④   | Power & Comm. Wiring Conduits | -               |
| ⑤   | Supply Air Flange             | -               |
| ⑥   | Return Air Flange             | -               |
| ⑦   | Hook                          | -               |



| No. | Name                    | Description                      |
|-----|-------------------------|----------------------------------|
| 1   | Refrigerant liquid pipe | $\phi 3/8$                       |
| 2   | Refrigerant gas pipe    | $\phi 5/8$                       |
| 3   | Drain hole              | Connect with provided drain plug |