# SAMSUNG

## SUBMITTAL AC030BN4DCH/AA, AC030BXSCCH/AA (CNH304DB/CXH30SCB)

Samsung Max Heat®, WindFree™\*, Low Ambient Heating, 4-Way Cassette, Single Zone, Split System

| Job Name         | Location                        |  |  |  |
|------------------|---------------------------------|--|--|--|
| Purchaser        | Engineer                        |  |  |  |
| Submitted to     | Reference Approval Construction |  |  |  |
| Unit Designation | Schedule #                      |  |  |  |



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- General Information
  •The indoor unit shall feature "WindFree™\* mode. In cooling mode, as room temperature nears set temperature, the unit will close its louver and will disperse air into the space through thousands of micro-holes on the front of the indoor unit preventing cold air drafts on occupants
  - •The system shall provide 100% heating capacity at -4° (-20°C) and high heating performance at -13° (-25°C)
  - Base pan heater equipped as standard
  - 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.
  - •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
  - •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: ISO-9227 the heat exchanger showed no unusual rust or corrosion development to 3,000 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 evening hours (automatic or manual activation)
- System can be set up as heating/cooling, cooling only, or heating only via outdoor unit option setting.
- 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)
- Maximum Current Control configurable from 50% 100% via outdoor unit, wired controller, or central controls

#### Indoor Far

- •Indoor fan is a single Turbo type
- •Three fan speed settings and auto setting
- ·Washable filter as standard
- •The WindFree™\* function will close the supply air outlet louver while in cooling mode to gently disperse cool air into the space without blowing directly onto occupants. The WindFree™\* feature is optional and can be enabled using central or local control options
- •The WindFree™ indoor unit has an integral humidity sensor that will open the louvers for standard cool mode when space conditions could potentially cause condensation formation on the chassis surface

#### Construction

- •Outdoor unit: Galvanized steel with a baked-on powder coated finish for durability
- •Indoor unit: Insulated, HIPS chassis and fascia panel certified to UL94 V0

#### Controls

- •Control wiring shall be 2 X 16 AWG
- •Wired controllers must be purchased separately
- •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

## Refrigerant System

- The compressor shall be hermetically sealed, inverter-controlled Twin 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









|                                |                                    | Specifications                |   |
|--------------------------------|------------------------------------|-------------------------------|---|
|                                | Indoor Unit Model Nu               | •                             | AC030BN4DCH/AA (CNH304DB  |
| Model                          | Outdoor Unit Model N               | , ,                           | AC030BXSCCH/AA (CXH30SCB  |
|                                | I.                                 | ,                             | ,   |
|                                | Nominal Capacity                   | Cooling / Heating (Btu/h)     | 30,000 / 34,000   |
|                                | Capacity Range                     | Cooling (Btu/h)               | 13,000 - 36,000   |
|                                |                                    | Heating (Btu/h)               | 10,000 - 40,000   |
| Df                             |                                    | SEER                          | 22.0  |
| Performance                    | AHRI 210-240 2017 <sup>1</sup>     | EER                           | 13.2  |
|                                |                                    | HSPF                          | 10.60   |
|                                | AHRI 210-240 2023 <sup>2</sup>     | SEER2<br>EER2                 | 22.6  |
|                                | AHRI 210-240 2023                  | HSPF2                         | 8.9   |
|                                |                                    | порги                         | 6.9   |
|                                | Voltage                            | ø / V / Hz                    | 1 / 208-230 / 60  |
|                                | Working Voltage Ran                | . ,                           | 187 - 253   |
| Power                          | Operating Current                  | Cooling (A)                   | 4.2 / 10.3 / 14.3   |
|                                | (min. / std. / max.)               | Heating (A)                   | 2.8 / 11.9 / 19.8   |
|                                | Max. Breaker                       | Amps                          | 40  |
|                                | Min. Circuit Ampacity              | (A)                           | 32.1  |
|                                | M V II V D (in )                   | Indoor Unit                   | 33 1/16 X 11 5/16 X 33 1/16   |
| Dimensions                     | W X H X D (in.)                    | Outdoor Unit                  | 37 X 55 7/8 X 13  |
| Dimensions                     | Weight (lbs.)                      | Indoor Unit                   | 41.9  |
|                                | Weight (lbs.)                      | Outdoor Unit                  | 220.5   |
| Sound Pressure                 | Indoor Unit dB(A)                  | L/M/H                         | 30 / 34 / 37  |
| Level                          | Outdoor Unit dB(A)                 | Cooling / Heating (high)      | 49 / 50   |
|                                | ( )                                | 3. 3. 3.                      | 22 422°F ( 5 50°C)  |
|                                | Outdoor                            | Cooling                       | 23 ~ 122°F (-5 ~ 50°C)  |
| Operating                      |                                    | Lleating                      | -4 ~ 122°F (-20 ~ 50°C) W/Baffle<br>-13 - 75°F (-25 - 24°C)                               |
| Temperatures                   |                                    | Heating                       | 61 ~ 90°F (16 ~ 32°C)   |
|                                | Indoor                             | Cooling<br>Heating            | T ≤ 86°F (30°C)   |
|                                |                                    |                               |   |
|                                | Indoor & Outdoor                   | High side (flare)             | 3/8"  |
| Pipe                           |                                    | Low side (flare)              | 5/8"  |
| Connections                    | Maximum (ft.)                      |                               | 246   |
|                                | Maximum Vertical Se                |                               | 98.4  |
|                                | Condensate Connecti                | ion                           | 1 1/4" OD, 1" ID  |
|                                | Туре                               |                               | R410A   |
| Refrigerant                    | Factory Charge Ibs.                |                               | 8.82  |
|                                | Charged for                        |                               | 24.6 ft.  |
|                                | Manufacturer                       |                               | Samsung   |
| Compressor                     | Туре                               |                               | Inverter Driven, Twin BLDC Rotar  |
|                                | RLA                                | Amps                          | 21  |
|                                | Туре                               |                               | BLDC (1) With Turbo Type Fan (1   |
|                                | Air Volume CFM (L/M/H)             |                               | 629 / 833 / 996   |
| Evaporator Fan                 | LAIL VOILIME                       |                               | 97  |
| Evaporator Fan                 | Air Volume<br>Output               | Watts                         |   |
|                                | Output                             | Watts                         |   |
| Condenser                      | Output<br>Motor                    |                               | BLDC With Axial Type Fan (2)  |
| Evaporator Fan  Condenser  Fan | Output                             |                               | BLDC With Axial Type Fan (2)  |
| Condenser<br>Fan               | Output  Motor FLA / Watts / CFM (m |                               |   |
| Condenser<br>Fan               | Output<br>Motor                    | nax.)                         | BLDC With Axial Type Fan (2)<br>1.25A X 2 / 125W X 2 / 4,415 CFM                          |
| Condenser                      | Output  Motor FLA / Watts / CFM (m | L X W X H (in.) Weight (lbs.) | BLDC With Axial Type Fan (2) 1.25A X 2 / 125W X 2 / 4,415 CFN 37 3/8 X 37 3/8 X 2 1/2 in. |

This publication reflects both the 1987 Appendix M metric (SEER) and the 2023 Appendix M1 metric (SEER2). Efficiency requirements are published at 10 C.F.R. 430.32(c). Please refer to www.AHRInet.org for more information about updated energy metrics.

temperature limit protection logic, compressor overload sensing

<sup>1</sup>Performance data certified by AHRI to AHRI 210-240 (2017) with Addendum 1. <sup>2</sup>Performance data certified by AHRI to AHRI 210-240 (2023). Effective January 1st, 2023.

Heating, Refrigerating, and Air-Conditioning Engineers)

The WindFree™ unit delivers an air current that is under 0.15 m/s while in WindFree™ mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE (American Society of

Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice. Refer to www.AHRIdirectory.org for current reference numbers.

Select models are ENERGY STAR labeled. Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your contractor for details or visit www.energystar.gov.

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# **Required Accessories**

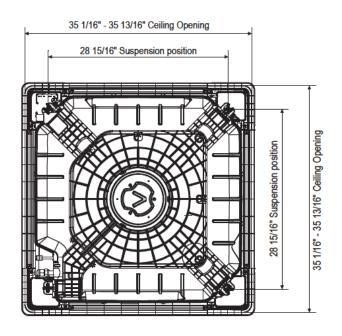
| Fascia panel | WindFree <sup>™</sup> Type | ✓ PC4NUFMUN |  |
|--------------|----------------------------|-------------|--|
|--------------|----------------------------|-------------|--|

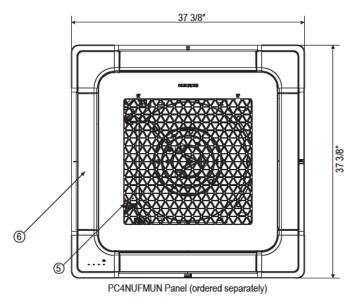
# **Optional Accessories**

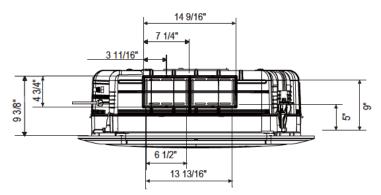
| Wired Controller   | Advanced           | MWR-WG00UN    |
|--|--------------------|---------------|
| Wiled Controller   | Touchscreen        | MWR-SH11UN    |
| Thermostat Adapter (24vac)                                     | MIM-A60UN          |               |
| Wireless Controller  |                    | AR-EH04U      |
| Wi-Fi Adapter  | Single indoor unit | MIM-H14UN     |
| Wi-Fi Adaptei  | 1-16 indoor units  | MIM-H05UN     |
| External Temperature Sensor                                    | MRW-TA             |               |
| External Contact Control                                       |                    | MIM-B14       |
| Wall Bracket (for outdoor unit)                                |                    | CKN-250       |
| Wind Baffle  | Front              | WBF-6M        |
| Willia Ballie  | Back               | WBB-4M        |
| Hail Guard Kit (includes back and side guards)                 |                    | HGK-5         |
| Line sets - insulated and flared, interconnect cables included |                    | 25' - ILS2510 |
|  |                    | 50' - ILS5010 |

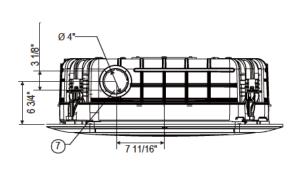
Samsung Max Heat®, WindFree™\*, Low Ambient Heating, 4-Way Cassette, Single Zone, Split System AC030BN4DCH/AA Dimensional Drawing

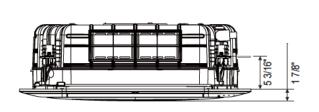
Units: Inches

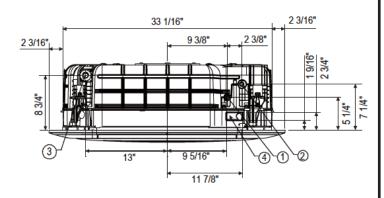


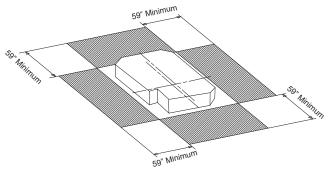










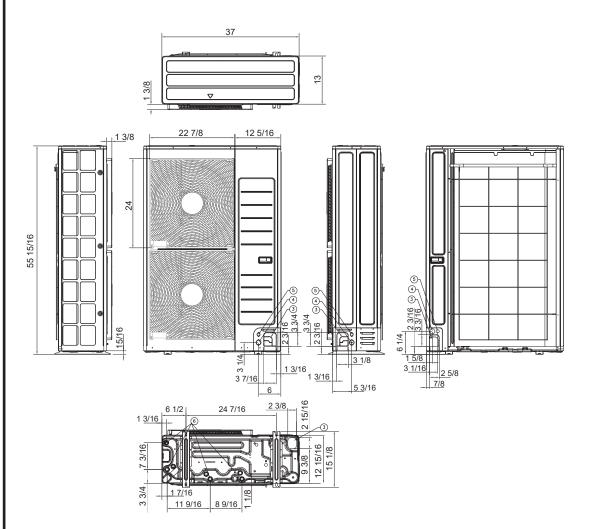


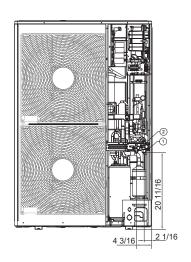
| Dropor | alcaranaa | must be | maintained | around i | unit for | proper | oporation |
|--------|-----------|---------|------------|----------|----------|--------|-----------|
|        |           |         |            |          |          |        |           |

| No. | Name                                  | Description             |
|-----|---------------------------------------|-------------------------|
| 1   | Liquid Pipe Connection                | Ø 3/8" Flare            |
| 2   | Gas Pipe Connection                   | Ø 5/8" Flare            |
| 3   | Drain Pipe Connection                 | OD 1 <u>1/4", ID 1"</u> |
| 4   | Conduit for Power & Communication Wil | ring _                  |
| 5   | Air Inlet Grille                      | -                       |
| 6   | Air Outlet Louver                     | -                       |
| 7   | Fresh Air Inlet                       | Ø 4"                    |

Samsung Max Heat®, WindFree™\*, Low Ambient Heating, 4-Way Cassette, Single Zone, Split System AC030BXSCCH/AA Dimensional Drawing

Units: Inches





| No. | Name                    | Description |
|-----|-------------------------|-------------|
| 1   | Refrigerant Liquid Pipe | Ø 3/8"      |
| 2   | Refrigerant Gas Pipe    | Ø 5/8"      |
| 3   | Pipe Knockout Hole      | -           |
| 4   | Power Wiring Conduits   | -           |
| (5) | Comm. Wiring Conduits   | -           |
| 6   | Drain Hole              | -           |