SAMSUNG

# SUBMITTAL DATA

## **AM036FCMDCG/AA** DVM S Mini Series, Heat Pump Condensing Unit

Job Name: _____ Location: _____

Purchaser: _____ Engineer: _____

Submitted to: _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation: _____ Schedule #: _____

### General Information

- Compatible with Samsung R-32 DVM S indoor units (AM******DCG/AA) and upcoming R-32 Universal Communication Kit.
- Active AI control enhances operational performance: AI Low Pressure Control can improve cooling speed up to 21%; AI High Pressure Control reduces unnecessarily high pressures, improving efficiency and reducing power consumption.
- Auto-restart after power loss
- Soft-start compressor minimizing current inrush

### Construction

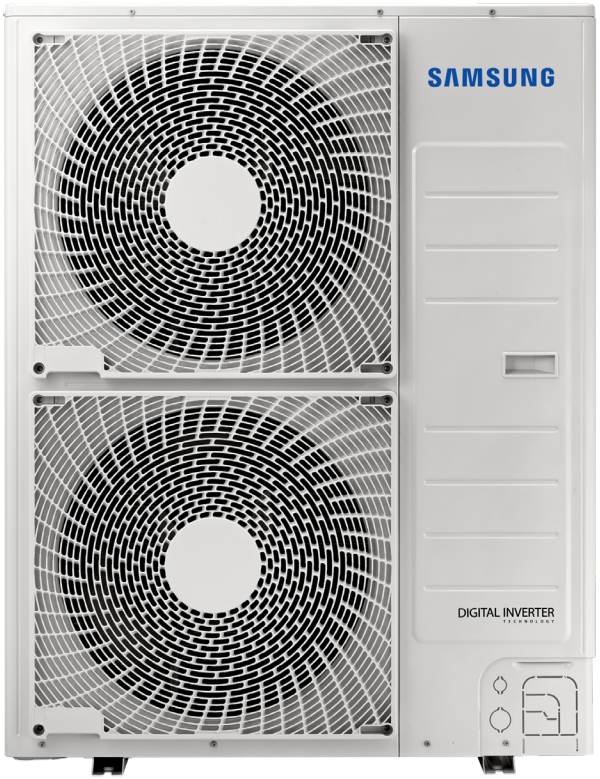
- Galvanized steel with a baked-on powder coated finish for durability.
- The heat exchanger shall be mechanically bonded aluminum fin to copper tube.

### Refrigerant System

- The system shall utilize low-GWP R-32 refrigerant
- The compressors shall be hermetically sealed, inverter driven, flash injected scroll type.
- The outdoor unit shall pump down the refrigerant in the event an indoor unit detects a refrigerant leak. The sequence of operations shall include closing refrigerant isolation valves at the end of the pump down process to secure as much refrigerant as possible in the outdoor unit in the event of refrigerant leakage within an indoor door unit.
- Refrigerant flow shall be controlled by an EEV (electronic expansion valve) throughout the system.
- A flat plate subcooler device will improve capacity at extreme system refrigerant pipe lengths and reduce refrigerant noise.
- The system shall include an R32 alarm output plug on the indoor unit and outdoor unit for notification of R32 leak when an indoor unit refrigerant leak detector detects a leak (MIM-B14U accessories are required).

### Controls

- Control wiring shall be 2 X 16 AWG wire.
- No additional interface modules/adapters are required when connecting to Samsung central control options.




### Convenience

- 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).
- Maximum Current Control configurable from 50% - 100% via outdoor unit, wired controller or central control.

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 or visit www.energystar.gov.

# Specifications AM036FCMDCG/AA

| Model | Outdoor Unit Model Number (US Code) | | AM036FCMDCG/AA |
|---|---|---|---|
| Performance | Rated Capacity* | Cooling (Btu/h) | 38,000 |
| | | Heating (Btu/h) | 42,000 |
| | Heating Capacity at 5°F OA, 70°F Indoor DB (Btu/h, Ducted) | | 31,000 |
| | SEER2 (Ducted / Mixed / Non-ducted) | | 19 / 20.5 / 22 |
| | EER2 (Ducted / Mixed / Non-ducted) | | 12 / 12.75 / 13.5 |
| | HSPF2 (Ducted / Mixed / Non-ducted) | | 10 / 10.5 / 11 |
| Power | Voltage | ø / V / Hz | 1 / 208-230 / 60 |
| | Working Voltage Range (VAC) | | 187 - 253 |
| | Nominal Current** | Cooling (A) | 13.7 |
| | | Heating (A) | 15.1 |
| | Max. Breaker | Amps | 30 |
| | Min. Circuit Ampacity | Amps | 22 |
| Dimensions | W X H X D | In. | 37 x 55-15/16 x 13 |
| | Weight | lbs. | 243.60 |
| Sound Pressure Level | Cooling / Heating (high) | | 50 / 52 |
| Operating Temperatures | Outdoor | Cooling | 23 - 118°F (-5 - 48°C) |
| | | | 0 - 118°F (-18 - 48°C) W/Baffle |
| | | Heating | -22 - 75°F (-30 - 24°C) |
| Pipe Connections | High side | | 3/8 |
| | Low side (suction) | | 5/8 |
| | Max. Distance - ODU to IDU | ft. | 492 (574 equivalent) |
| | Max. Line Set Length (total) | ft. | 984 |
| | Max. Vertical Separation | Outdoor to indoor (ft.) | IDU above ODU: 131, ODU above IDU: 164 |
| | | Highest to lowest indoor (ft.) | 49 |
| Refrigerant | Type | | R-32 |
| | Control Method | | Electronic Expansion Valve (D) |
| | Factory Charge | oz. | 105.8 |
| Compressor | Type | | Flash Injected, Inverter Driven Scroll |
| | RLA | Amps | 19.3 |
| Condenser Fan | Type | | BLDC With Axial Type Fan (2) |
| | MOC / Watts / CFM (max.) | | 1.2 / 125W X 2 / 4,415 |
| Corrosion Prevention | IS0-9227 - The condenser heat exchanger showed no unusual rust or corrosion development to 3,000 hours. | | |
| Safety | Certifications | | UL 60335-2-40 |
| | Devices | PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing | |

*Standard capacity is based on non-ducted rated capacity. Minimum and maximum capacity will vary based on connected indoor unit type, capacity, and quantity along with indoor and outdoor temperatures. Refer to system capacity tables for full capacity details.
**Rated current based on highest combination ratio of non-ducted indoor units.

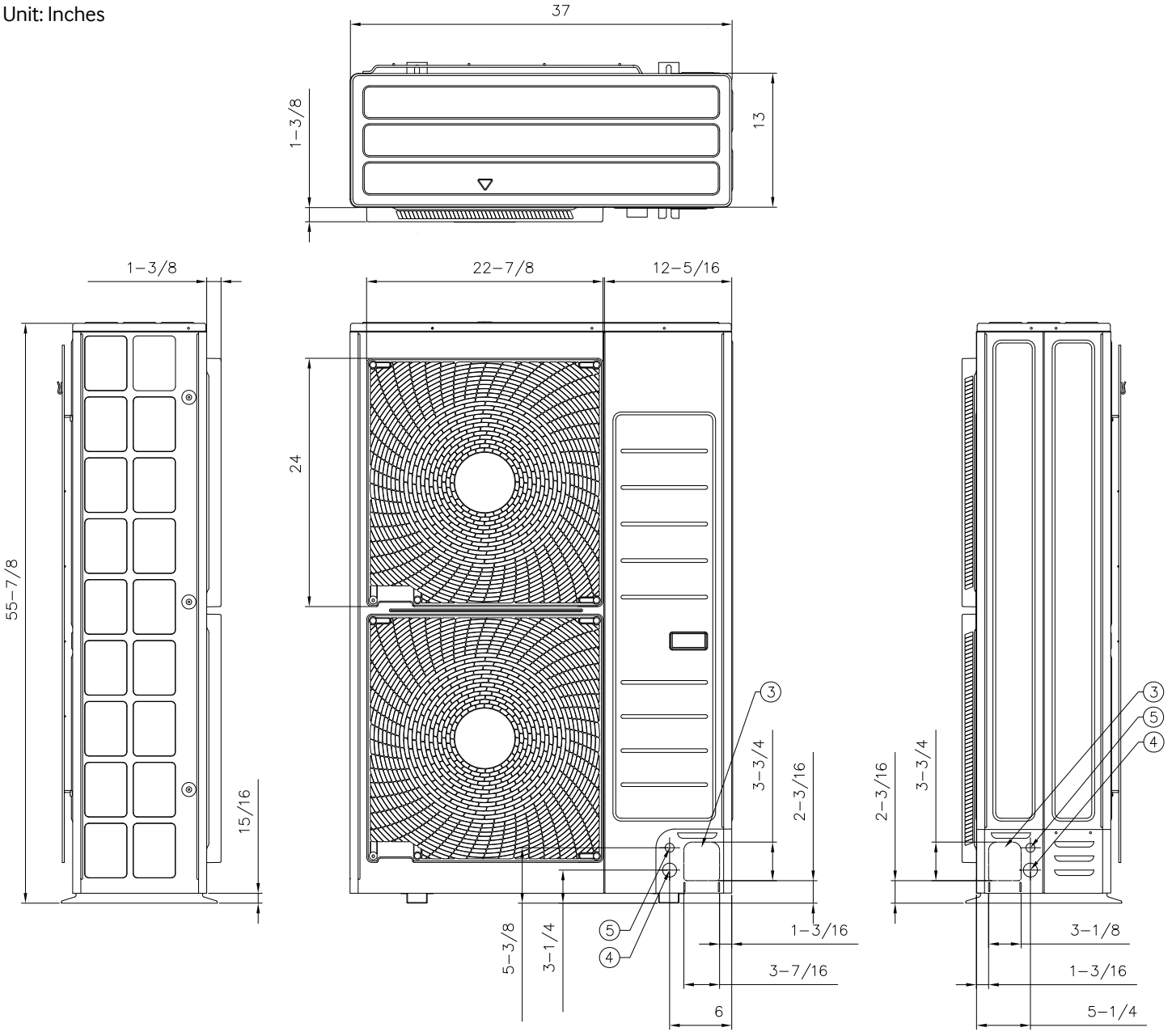
# Accessories AM036FCMDCG/AA

| | | |
|---|---|---|
| Wind baffles | Front | ☐ WBF-8M |
| | Back | ☐ WBB-8M |
| Hail guard kit (includes back and side guards) | | ☐ HGK-8 |
| Mode selector switch for HP systems | | ☐ MCM-C200U |
| Base pan heater kit | | ☐ MHC-015EEU |
| External contact control interface module<br>(operation and error output, night silent mode manual activation) | | ☐ MIM-B14U |
| Wall bracket | | ☐ CKN-250 |

# Dimensional Drawing

## AM036FCMDCG/AA

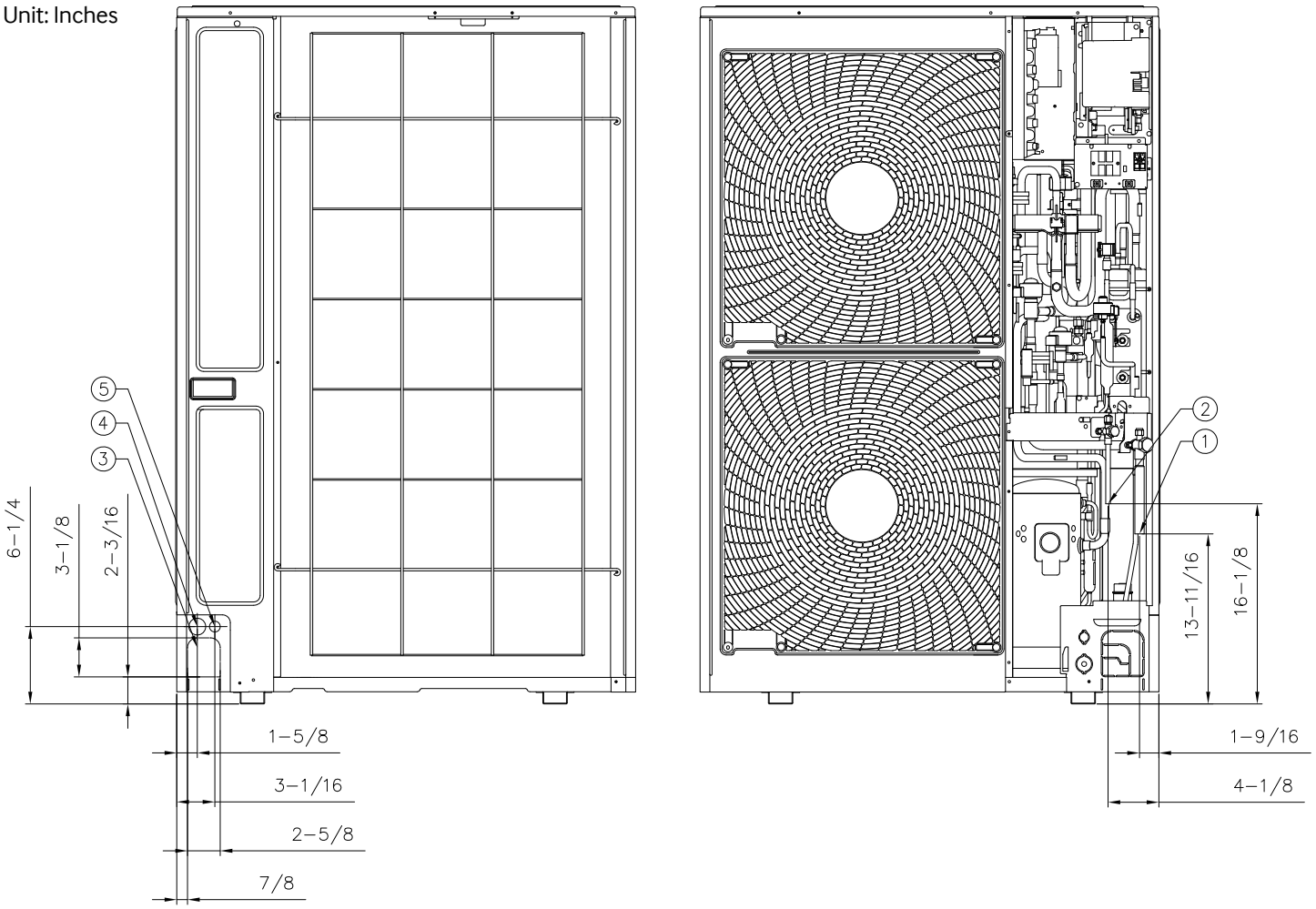
Unit: Inches

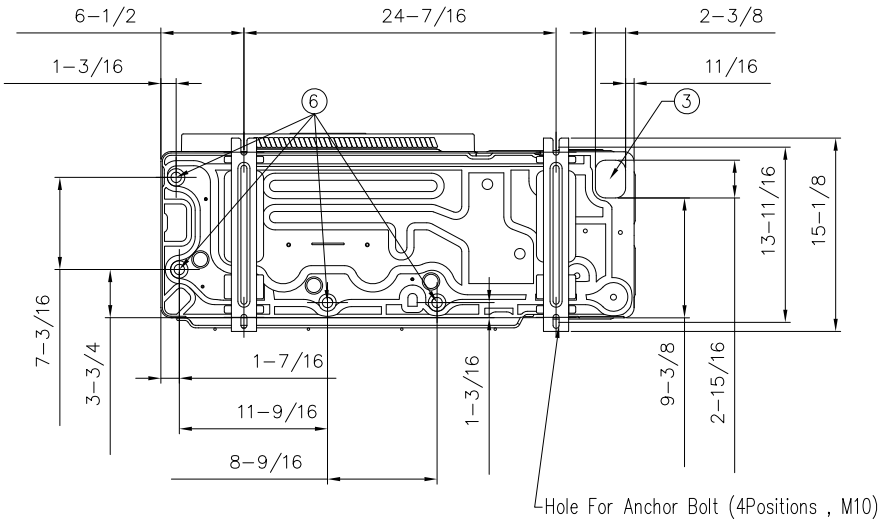



| No. | Description |
|---|---|
| 3 | Pipe Intake Knockout Hole |
| 4 | Opening for Power Wire Conduit (1 3/8) |
| 5 | Opening for Communication Conduit (7/8) |

# Dimensional Drawing
## AM036FCMDCG/AA

Unit: Inches




| No. | Description |
|---|---|
| 1 | Gas Pipe Connection (5/8) |
| 2 | Liquid Pipe Connection (3/8) |
| 3 | Pipe Intake Knockout Hole |
| 4 | Opening for Power Wire Conduit (1 3/8) |
| 5 | Opening for Communication Conduit (7/8) |
| 6 | Drain Holes |