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ACiQ ACiQ-18-AC

ACiQ 1.5 Ton 16 SEER2 Central Air Conditioner System

Model: **ACiQ-18-AC**

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your ACiQ 1.5 Ton 16 SEER2 High Efficiency Central Air Conditioner System. Please read this manual thoroughly before attempting any procedures. Proper installation and maintenance are crucial for optimal performance and longevity of the unit.

Image 1.1: Overview of the ACiQ 1.5 Ton Central Air Conditioner System and included installation kit.

2. Safety Information

WARNING: Installation and servicing of this equipment can be hazardous due to system pressure, electrical components, and sharp edges. Only qualified, trained, and licensed HVAC technicians should install, repair, or service this equipment. Failure to follow this warning could result in property damage, personal injury, or death.

- Always disconnect power to the unit before performing any maintenance or service.
- Wear appropriate personal protective equipment (PPE), including gloves and eye protection.
- Ensure proper grounding of all electrical components.
- Do not operate the unit with damaged electrical cords or components.
- Keep children and pets away from the unit during operation and maintenance.

3. Package Contents

Verify that all components listed below are present in your package:

- Outdoor Condenser Unit
- Indoor Evaporator Cased Coil (Multi-Positional)

- Smart WiFi Thermostat
- 30' Insulated Line Set (3/8" LL x 3/4" SL x 3/8")
- 1/2" x 6' 10 Gauge Electrical Whip
- 60A Non-fused Disconnect Switch
- Controls Surge Protector
- CPS Charging Adapter
- Wall Sleeve
- Wall Mount Bracket
- User Manual (this document)

Image 3.1: Components included in the ACiQ Split System Installation Kit.

4. Product Overview and Features

4.1. Inverter AC Technology

The ACiQ system utilizes inverter technology, which allows the compressor to adjust its speed continuously. This precise control maintains a consistent indoor temperature, reduces energy consumption, and results in quieter operation compared to traditional single-stage systems.

4.2. Multi-Positional Evaporator Cased Coil

The included cased coil is designed for multi-positional installation, offering flexibility for various HVAC system configurations. It features a factory-integrated TXV (Thermostatic Expansion Valve) for optimized refrigerant flow and enhanced system efficiency.

4.3. Smart Thermostat

The system comes with a Smart WiFi Thermostat, enabling remote control and advanced scheduling features. It integrates with popular smart home platforms for convenient management of your home's climate.

Image 4.1: Key features of the ACiQ Air Conditioner, including inverter technology, gold fin coil, and quiet operation.

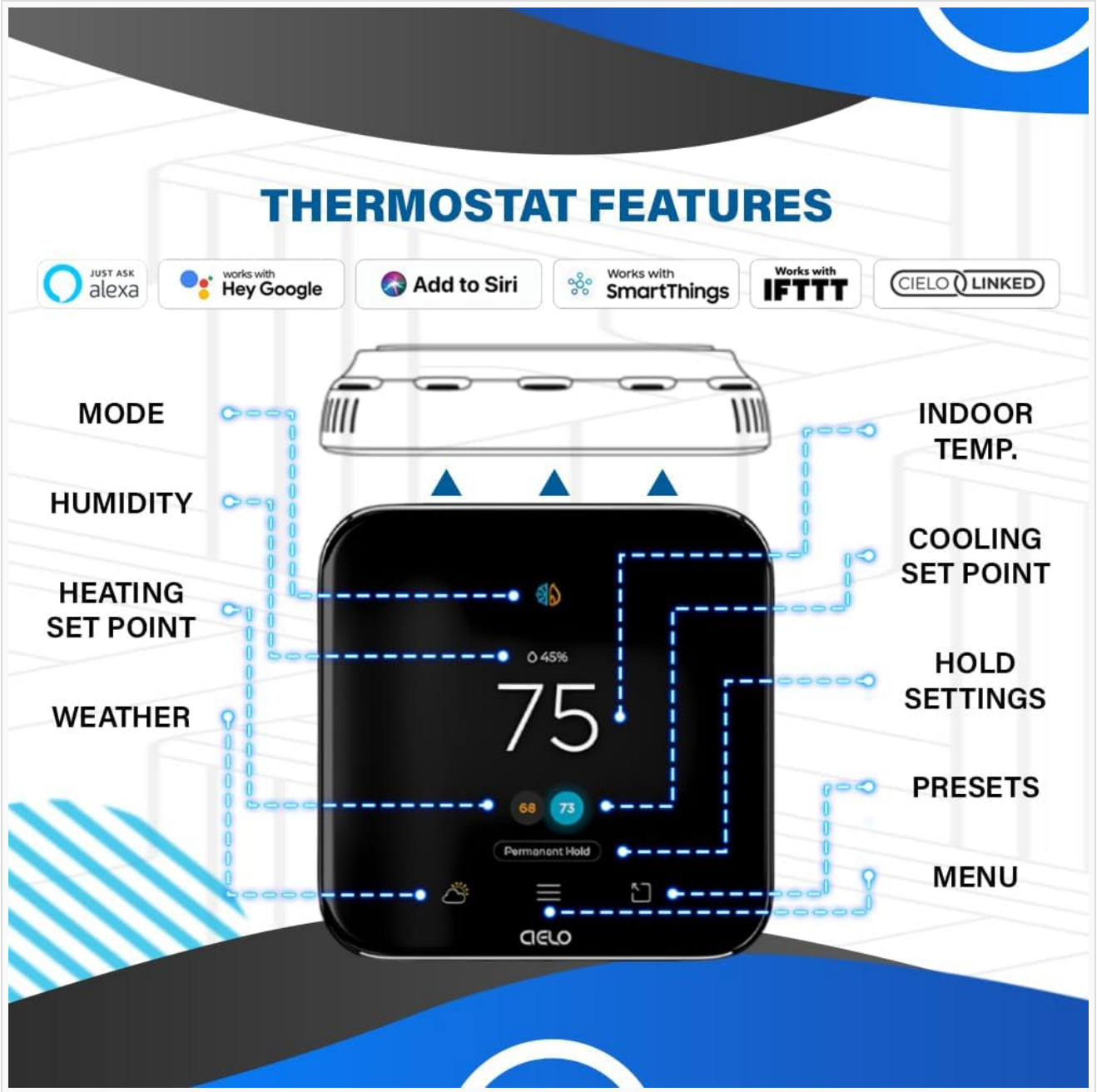

Image 4.2: Detailed features and interface of the included Smart Thermostat.

5. Specifications

Specification	Value
Brand Name	ACiQ
Model Info	ACiQ-18-AC / ACIQ-24-ACL / IKIC31
Capacity	1.5 Tons (18000 BTU/h)
SEER2 Rating	Up to 16.8
Voltage	230 Volts
Wattage	1538 watts
Installation Type	Split System

Specification	Value
Form Factor	Central Split System
Special Features	Inverter Unit, Smart Sensors, Gold Fin Coil, Ultra-Quiet, All-Climate Performance
Floor Area Coverage	Up to 900 Square Feet
Outdoor Condenser Dimensions (D x W x H)	13.46 x 35.04 x 26.5 inches
Evaporator Coil Dimensions (W x D x H)	17.52 x 20.98 x 17.99 inches
Evaporator Coil Air Flow	720.04 CFM
Evaporator Coil Dehumidification	3.02

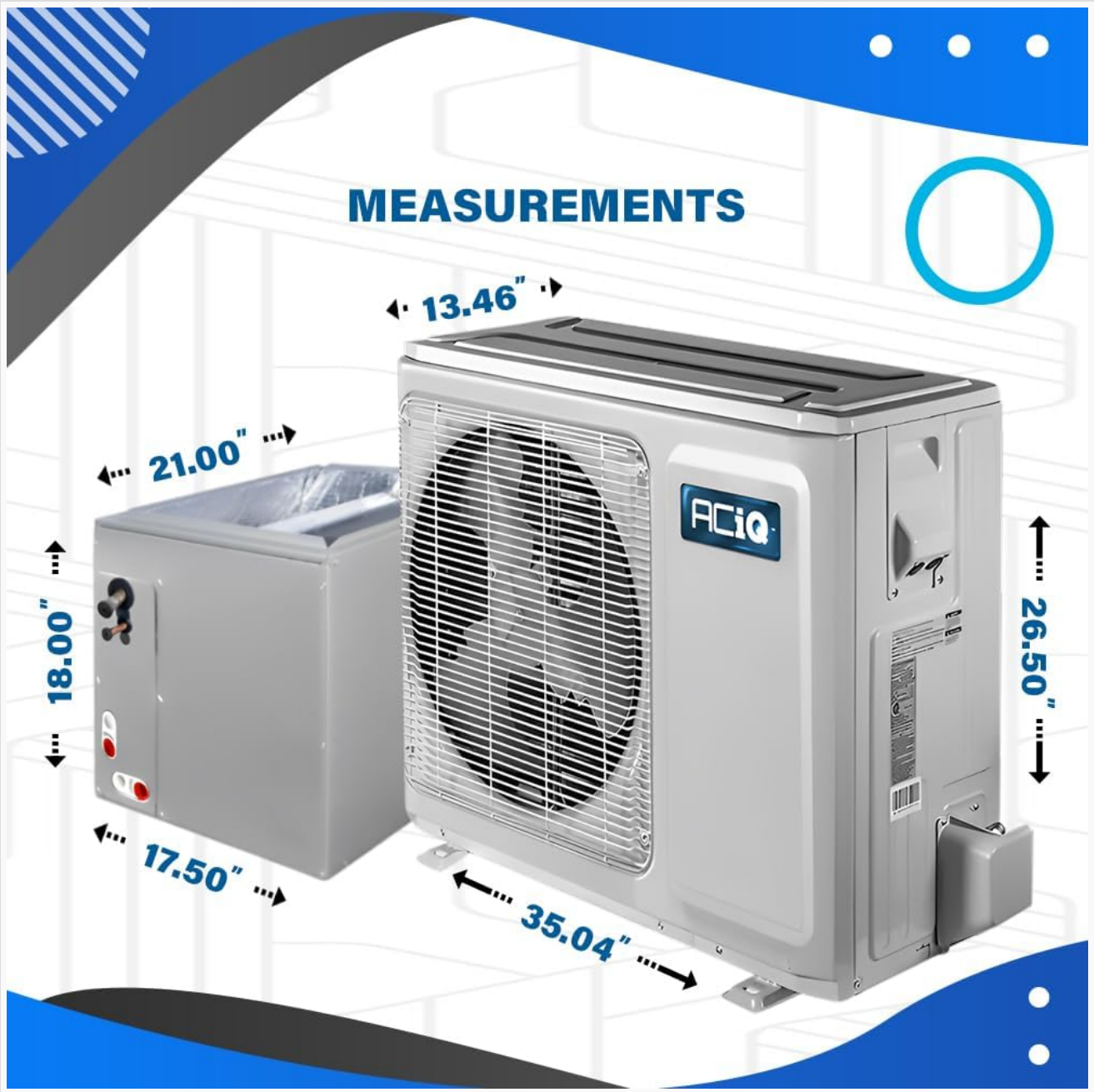

Image 5.1: Dimensional measurements for the ACiQ outdoor condenser and evaporator coil.

Image 5.2: Detailed specifications for the ACiQ evaporator coil.

6. Setup and Installation

IMPORTANT: This ACiQ Central Air Conditioner System requires professional installation by a qualified and licensed HVAC technician. Attempting to install the system without proper training and tools can lead to property damage, personal injury, voided warranty, and improper operation.

6.1. Pre-Installation Checks

1. Ensure the installation site meets local building codes and regulations.
2. Verify that the electrical supply matches the unit's requirements (230 Volts).
3. Confirm adequate space for both the outdoor condenser and indoor evaporator coil, allowing for proper airflow and service access.

6.2. Installation Steps (Overview for Technician)

1. **Mounting the Outdoor Condenser:** Securely mount the outdoor unit using the provided wall mount bracket

or a suitable ground-level pad, ensuring proper drainage and vibration isolation.

2. **Installing the Indoor Evaporator Coil:** Integrate the multi-positional cased coil with your existing furnace or air handler, ensuring proper sealing and airflow.
3. **Connecting Refrigerant Lines:** Connect the insulated line set between the outdoor and indoor units. This involves brazing and vacuuming the lines to remove moisture and non-condensable gases, followed by charging with R410A refrigerant.
4. **Electrical Wiring:** Connect the electrical whip, disconnect switch, and controls surge protector according to wiring diagrams provided with the unit and local electrical codes. Connect the smart thermostat.
5. **System Start-up and Testing:** Perform a leak check, verify proper refrigerant charge, test all operational modes, and calibrate the thermostat.

7. Operating Instructions

Once professionally installed, your ACiQ system is designed for user-friendly operation primarily through the Smart WiFi Thermostat.

7.1. Smart Thermostat Operation

Refer to the separate Smart WiFi Thermostat manual for detailed instructions on its features, including:

- Setting desired temperature (cooling/heating set points).
- Selecting operating modes (Cool, Heat, Auto, Fan Only).
- Programming schedules and presets.
- Connecting to your home's WiFi network for remote access via a mobile application.
- Integration with voice assistants (e.g., Alexa, Google Assistant) and smart home platforms (e.g., SmartThings, IFTTT).

7.2. Inverter Technology Benefits

The inverter system automatically adjusts its output to match the cooling demand, providing consistent comfort and energy savings. You may notice the compressor running at varying speeds, which is normal operation for an inverter unit.

8. Maintenance

Regular maintenance ensures the efficiency and longevity of your ACiQ system. Some tasks can be performed by the homeowner, while others require a professional technician.

8.1. User Maintenance

- **Clean or Replace Air Filters:** Check your furnace/air handler's air filter monthly and clean or replace it as needed. A dirty filter restricts airflow and reduces efficiency. The system uses a washable, reusable mesh filter.
- **Clear Outdoor Unit:** Keep the area around the outdoor condenser unit free from debris, leaves, and vegetation to ensure proper airflow.
- **Clean Evaporator Coil Drain Pan:** Periodically check and clean the condensate drain pan to prevent clogs and water overflow.

8.2. Professional Maintenance

Schedule annual maintenance with a qualified HVAC technician. This typically includes:

- Checking refrigerant levels and pressure.
- Cleaning condenser and evaporator coils.
- Inspecting electrical connections and components.
- Lubricating moving parts (if applicable).
- Checking thermostat calibration.
- Inspecting ductwork for leaks.

9. Troubleshooting

Before calling for service, review these common issues and solutions:

Problem	Possible Cause	Solution
System not cooling/heating	Thermostat setting incorrect, dirty air filter, power supply issue, tripped breaker.	Check thermostat settings, replace/clean filter, check circuit breaker, ensure power is on.
Poor airflow	Dirty air filter, blocked vents, obstructed outdoor unit.	Clean/replace filter, ensure vents are open, clear debris from outdoor unit.
Unusual noises	Loose parts, debris in fan, refrigerant issues.	Inspect for loose panels or debris. If persistent, contact a technician.
Water leakage	Clogged condensate drain line, frozen evaporator coil.	Clear drain line. If coil is frozen, turn off unit and contact a technician.

If these steps do not resolve the issue, contact a qualified HVAC technician for further diagnosis and repair.

10. Warranty and Support

10.1. Warranty Terms

Your ACiQ Central Air Conditioner System comes with a warranty of**7 years on parts** and **12 years on the compressor**. This warranty is valid when the unit is installed by a qualified technician and registered online with the manufacturer. Please retain your proof of purchase and installation records.

10.2. Customer Support

For technical assistance, warranty claims, or to locate a certified service provider, please visit the official ACiQ website or contact their customer support line. (Specific contact details are typically provided on the manufacturer's website or warranty card.)

11. AHRI Rating Conditions

AHRI (Air-Conditioning, Heating, and Refrigeration Institute) certification is essential for HVAC units as it assures performance, energy efficiency, quality, regulatory compliance, and provides benefits like market differentiation, financial incentives, and consumer protection.

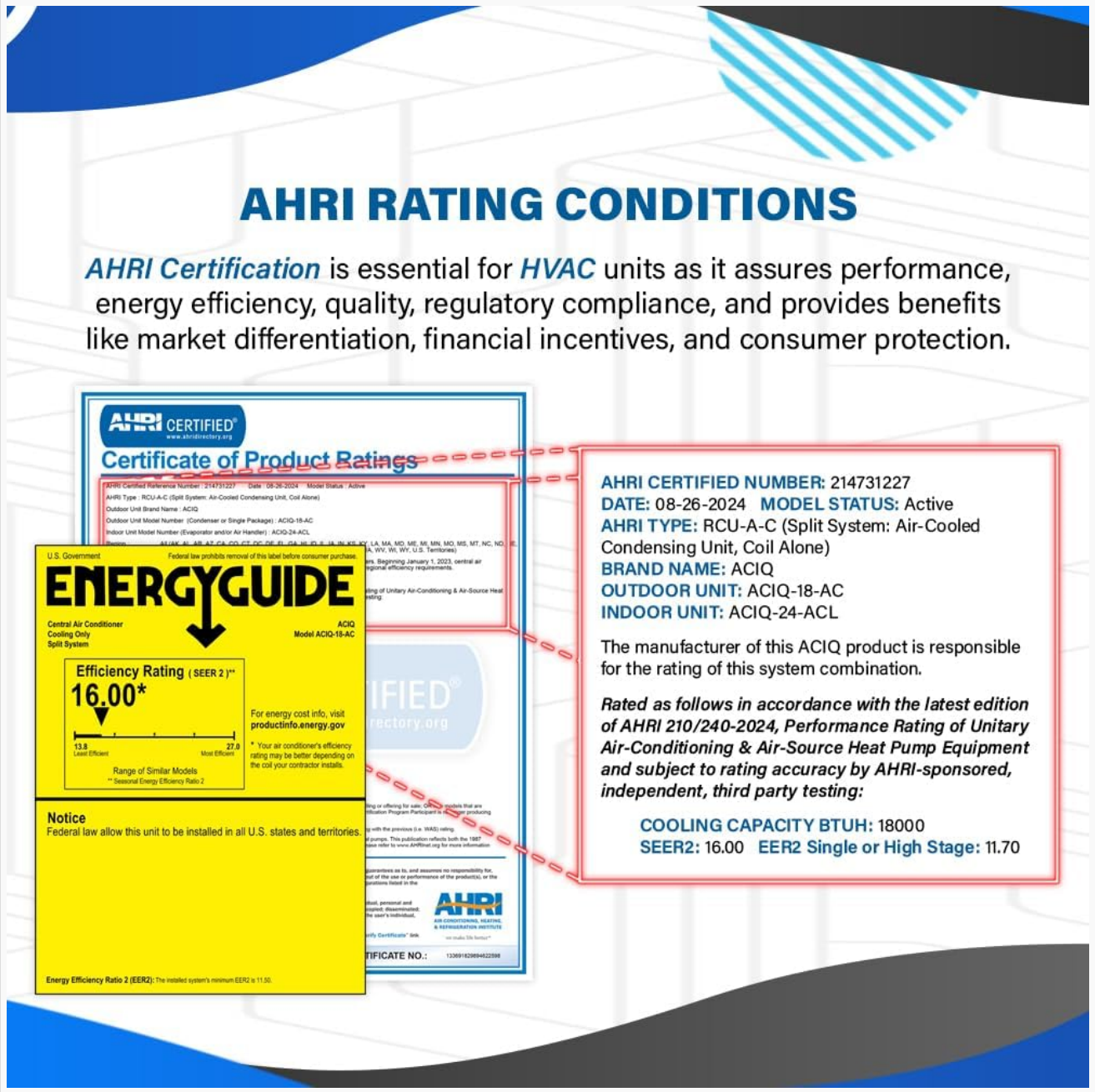

Image 11.1: AHRI Certification and EnergyGuide label details for the ACiQ system, showing SEER2 rating and cooling capacity.

The manufacturer of this ACiQ product is responsible for the rating of this system combination. The unit is rated as follows in accordance with the latest edition of AHRI 210/240-2024, Performance Rating of Unitary Air-Conditioning & Air-Source Heat Pump Equipment:

- **AHRI Certified Number:** 214731227
- **Date:** 08-26-2024
- **Model Status:** Active
- **AHRI Type:** RCU-A-C (Split System: Air-Cooled Condensing Unit, Coil Alone)
- **Brand Name:** ACiQ
- **Outdoor Unit:** ACiQ-18-AC
- **Indoor Unit:** ACiQ-24-ACL
- **Cooling Capacity BTU/h:** 18000
- **SEER2:** 16.00
- **EER2 Single or High Stage:** 11.70

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Related Documents - ACiQ-18-AC

	ACiQ Central Inverter Systems Outdoor Unit Installation Manual Comprehensive installation manual for ACiQ Central Inverter Systems outdoor units, covering safety precautions, refrigerant piping, outdoor unit installation, wiring, power specifications, air evacuation, and test run procedures. Includes model details and important notes for proper setup.
	ACiQ Central Inverter Systems Installation Manual Comprehensive installation manual for ACiQ Central Inverter Air Conditioning and Heat Pump Systems, detailing safety precautions, refrigerant piping, outdoor unit installation, wiring, power specifications, air evacuation, and test run procedures.
	ACiQ Central Inverter Systems Outdoor Unit Installation Manual Comprehensive installation manual for ACiQ Central Inverter Systems outdoor units, covering safety precautions, refrigerant piping, wiring, unit installation, and testing procedures for models like ACiQ-18-AC, ACiQ-24-AC, ACiQ-18-EHPB, and others.
	ACiQ Ducted Air Handler Installation Manual (12K-60K BTU/h) This installation manual from ACiQ provides detailed instructions for the safe and correct installation of Ducted Air Handler units, models 12K through 60K BTU/h. It covers essential safety guidelines, unit placement, refrigerant piping, electrical wiring, specifications, and operational testing to ensure optimal performance and system longevity.
	ACiQ Extreme Heat Single-Zone Condenser & Concealed Duct Air Handler Installation Manual Installation manual for ACiQ Extreme Heat Single-Zone Condenser and Concealed Duct Air Handler systems (models ACIQ-09CD-HH-MC to ACIQ-60CD-HH-MC and ACIQ-09ZPL-HP230C to ACIQ-60ZPL-HP230C). Includes safety, installation steps, and specifications.

ACiQ Extreme+ Ducted Air Handler Owner's Manual

Comprehensive owner's manual for the ACiQ Extreme+ Ducted Air Handler (18K-60K), covering safety precautions, parts, maintenance, and troubleshooting.