# Outdoor Cabinet DC Air Conditioner

**Model: CS A 05 E D**

## Overview

The DC Series Air Conditioner is a high-efficiency cabinet cooling solution designed with full DC -48V inverter technology. It provides precise temperature control and reliable thermal protection for outdoor telecom cabinets, battery cabinets, and equipment enclosures. By maintaining a stable internal environment, the unit helps reduce overheating risks, improve equipment reliability, and support continuous operation in demanding outdoor applications.

## Quick Specifications

| DC -48V | 500 W | R134a | -40°C to +55°C |
|---|---|---|---|
| Power Supply | Cooling Capacity | Refrigerant | Ambient Range |

## Core Advantages

| | | |
|---|---|---|
| **PID**<br>**PID Control**<br>Three-proof coated main control board with precise PID temperature control. | **DC**<br>**All-DC Design**<br>DC fans, DC compressor, and DC control board reduce conversion losses. | **55°C**<br>**High-Temperature Ready**<br>R134a system supports reliable operation in T3 and hot ambient conditions. |
| **EER**<br>**Energy Saving**<br>Low power design with EER ≥ 3.5 and SEER ≥ 5.5. | **IP55**<br>**Outdoor Protection**<br>IP55 enclosure protection for cabinet and telecom applications. | **RS485**<br>**Smart Interface**<br>LED display, RS485 communication, and dry contact alarm output. |

## Typical Applications

| | | |
|---|---|---|
| **Telecom Cabinets**<br>Reliable thermal control for outdoor telecom and communication cabinets. | **Battery Cabinets**<br>Stable temperature control for battery cabinets and backup power enclosures. | **Hybrid Energy Storage Cabinets**<br>Efficient thermal management for hybrid energy storage and power control cabinets. |

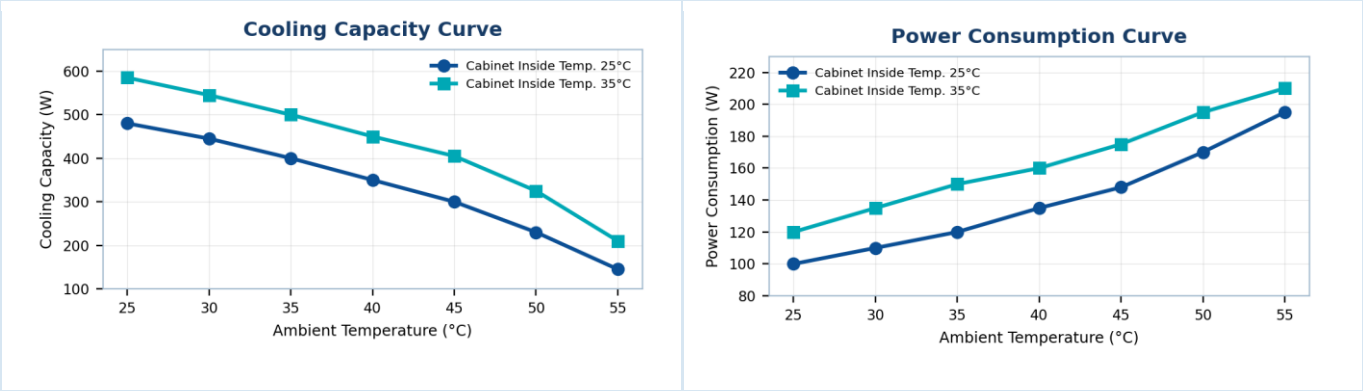
**Designed for stable, low-power thermal control in outdoor telecom, battery, and hybrid energy storage cabinet applications.**

# Technical Parameters

Clean layout based on the original specification data.

| | |
|---|---|
| **Name** | Outdoor Cabinet DC Air Conditioner |
| **Model** | CS A 05 E D |
| **Mounting Method** | Semi-embedded Mounting |
| **Power Supply** | -48±20% VDC |
| **Cooling Capacity (L35/L35)** | 500 W |
| **Power Consumption (L35/L35)** | 150 W |
| **Cooling Capacity (L35/L55)** | 250 W |
| **Power Consumption (L35/L55)** | 210 W |
| **Internal Airflow** | 150 m³/h |
| **Working Temperature Range** | -40°C to +55°C |
| **Max Noise Level** | 60 dB(A) |
| **IP Grade** | IP55 |
| **Net Weight** | 20 kg |
| **Refrigerant** | R134a |
| **Dimensions** | 550 × 319 × 175 mm (H × W × D) |
| **Compliance** | CE & RoHS |
| **Surface Treatment** | Outdoor type powder coating, standard color: RAL7035 |

## Performance Curves



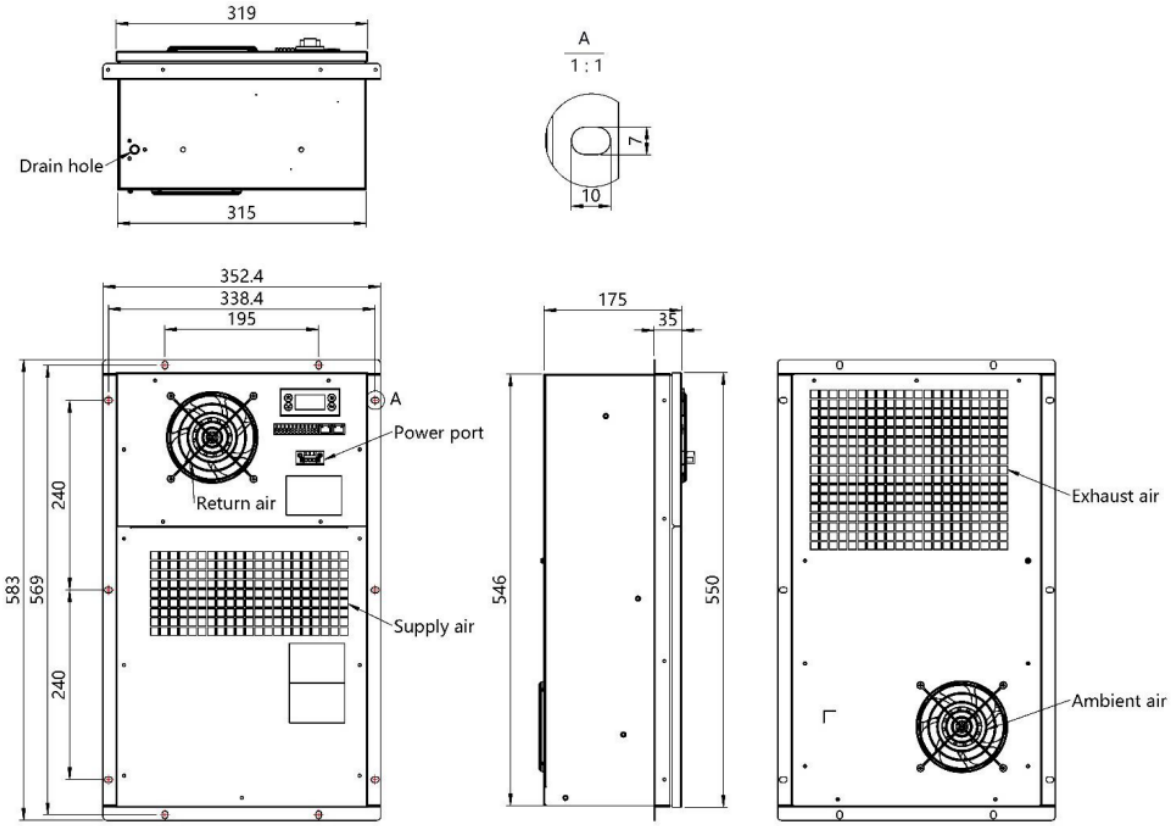

Note: Curves are presented for quick reference under different cabinet inside temperatures and ambient temperatures.

# Product Dimension & Installation

Dimensions and installation opening information are retained from the original specification.

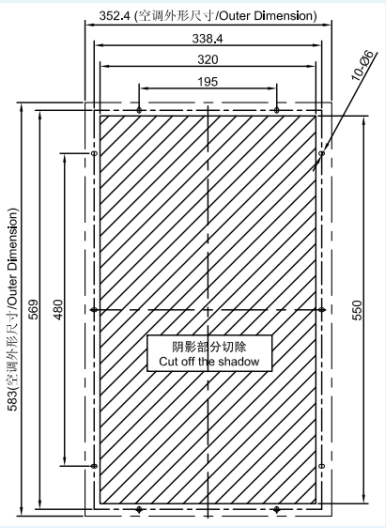
| Code | Model | Installation |
|---|---|---|
| 92200 | CS A 05 E D | Semi-embedded Mounting |

## Product Dimension

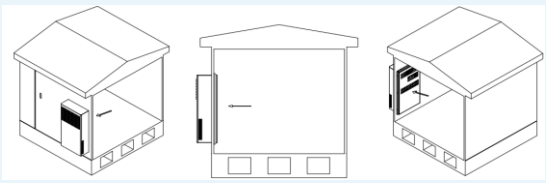



## Installation Opening & Notes

### Opening Drawing




Reference cut-out and mounting opening.



### Installation Checklist

Check these items before final mounting.

**01 Vertical Mounting**
Ensure the unit is installed vertically.

**02 Airflow Clearance**
Keep internal and external air paths unobstructed.

**03 Wiring Check**
Confirm power and terminal wiring are correct and firm.

**04 Protective Cover**
If a cover is used, aperture area should be >=70%.

**Focus:** keep air circulation smooth and reserve front service space.

# Display Panel & Terminal Instructions

Simplified operation and terminal definition page.

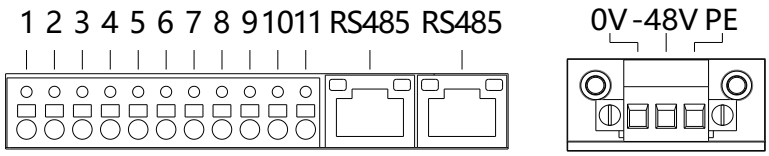
## Display Panel

### Panel Function

The display panel shows cabinet temperature under normal operation and alarm code when a malfunction occurs.

- **Setting:** Flashing during setting or self-diagnosis mode.
- **Cooling:** Lamp on when cooling is active.
- **External fan:** Lamp on when external fan is running.
- **Alarm:** Flashing when alarm is active.

## Terminal Instructions




## Terminal Instructions

| Number | Symbol | Definition |
|---|---|---|
| 1 | **NC/COM** | Alarm output - NC |
| 2 | **COM_IN** | Alarm output - COM |
| 3 | **COM_OUT** | Alarm output - NO |
| 4 | **1** | External control input - NC type |
| 5 | **2** | External control input - NC type |
| 6 | **3** | Hydrogen exhaust fan port |
| 7 | **4** | Hydrogen exhaust fan port |