

DC05CDNC1C 48V DC Cabinet Air Conditioner

Category: Air Conditioner

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DC05CDNC1C 48V DC Cabinet Air Conditioner: Technical Overview and Practical Guide

Outdoor telecom cabinets, base stations and industrial enclosures rely on compact DC air conditioners to keep sensitive electronics within a safe temperature range. The **Envicool DC05CDNC1C 48V DC cabinet air conditioner** is one of these dedicated solutions, delivering 550 W of cooling capacity in a sealed IP65 housing for harsh outdoor environments.

Product identification

The nameplate in the photo clearly identifies the unit as a *Cabinet Air Conditioner - Model DC05CDNC1C* manufactured by Shenzhen Envicool Technology Co., Ltd.

It is a 48 VDC powered system using refrigerant R134a, designed specifically for outdoor telecom and electronics cabinets rather than for human comfort cooling.

Main technical specifications

From the label and available product listings, the DC05CDNC1C offers 550 W (\approx 1700 BTU/h) of rated cooling capacity at test conditions L35/L35, with a rated cooling power input of 170 W, which indicates a high-efficiency DC compressor.

The unit works on -48 V DC, draws a rated current around 3.6 A and a maximum current of 5.5 A, and uses R134a refrigerant within an IP65 enclosure suitable for dusty or rainy outdoor sites.

Key data table

Specification	Value
Model	DC05CDNC1C cabinet air conditioner
Power supply	-48 V DC nominal
Rated cooling capacity	550 W at L35/L35 (\approx 1700 BTU/h)
Rated cooling input	170 W at L35/L35
Refrigerant	R134a
Cooling function	Cooling only or cooling + heating (depending on configuration)
Working temperature	Approximately -40 °C to +55 °C (typical for this model range)
Protection rating	IP65 for outdoor installation

Specification	Value
Approx. dimensions	315 × 170 × 545 mm (W×D×H)

Typical applications and installation

This compact DC air conditioner is used on outdoor telecom cabinets, wireless base stations, battery cabinets and other critical enclosures where grid AC power is limited but -48 V DC is available from telecom power systems or solar-hybrid supplies.

Installers mount the unit directly on the cabinet wall, ensuring correct cut-out size, gasket sealing for IP65, and proper connection to the DC power and control terminals according to Envicool's cabinet air-conditioner manuals.

Advantages for telecom and industrial users

The **DC05CDNC1C** offers several operational advantages: it reduces energy consumption by using DC power directly without an AC/DC conversion stage, keeps electronics within their design temperature for higher reliability, and protects against dust and moisture thanks to its sealed IP65 construction.

For operators of remote sites, the 48 V DC architecture integrates smoothly with solar and battery systems, helping to maintain cooling even during AC grid outages and extending equipment life in severe climates.







Model: MTS9514A
Type: MTS9514A-GX2001

Input: ~ 200 - 240/346 - 415 V; 3W+N+ \ominus ; 50/60 Hz; 54 A Max
~ 200 - 240 V; 50/60 Hz; 154 A Max

Output: - - - 48 V; 400 A Max



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合格证/QUALIFICATION CARD

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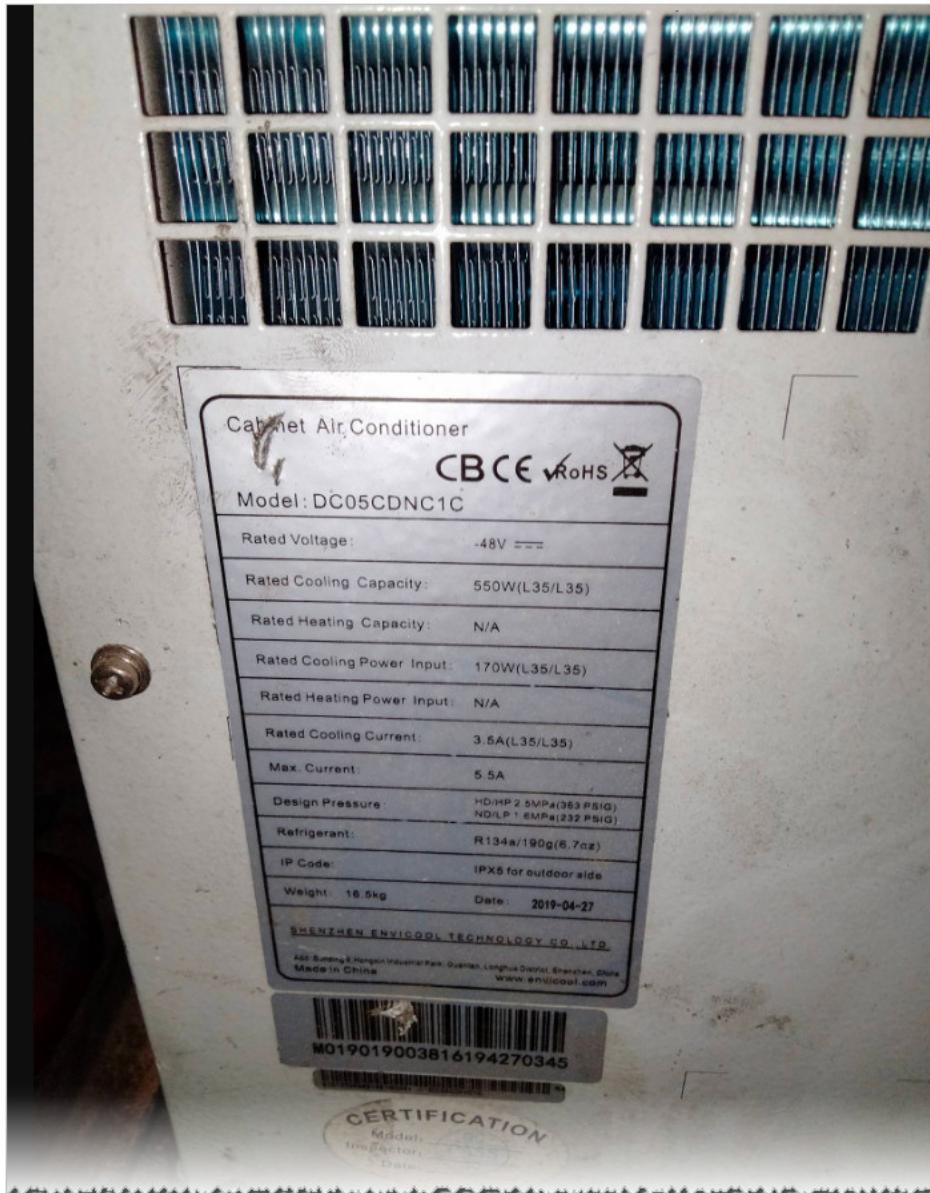
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