

Federal Requirements for Portable ACs



Portable air conditioning unit

Single-duct and dual-duct portable air conditioners (ACs) manufactured on or after January 10, 2025, are required to meet U.S. Department of Energy (DOE) standards as well as certification requirements in [California's Appliance Efficiency Regulations \(Title 20\)](#). These regulations set a minimum efficiency ratio for portable ACs, which means that products have to provide a minimum amount of cooling for a given amount of energy use.

Compliant products must be listed on the DOE's [Compliance Certification Management System \(CCMS\)](#). In addition to being certified to the CCMS, if products are to be sold or offered for sale in California, Title 20 requires that federal and state-regulated products be certified to the California Energy Commission (CEC) [Modernized Appliance Efficiency Database System \(MAEDbS\)](#), a publicly-available database that contains all regulated products that may be legally sold or offered for sale in California.

What Changed?

In 2020, the U.S. DOE adopted standards for portable air conditioners which became effective on January 10, 2025. These standards now apply to both single-speed and variable-speed portable ACs, in contrast to the requirements previously effective in California, which only applied to single-speed equipment.

Products manufactured between January 1, 2022 and January 9, 2025, do not need to be re-certified to the MAEDbS. Products manufactured on and after January 10, 2025, need to be certified to both the DOE's CCMS and the CEC MAEDbS as a federally-regulated product.

What Qualifies as a Portable AC?

Portable ACs are portable, self-contained, refrigeration-based products used to cool and condition the air in a space. They typically have one or two hoses or ducts attached to an adjustable window bracket used for air intake and/or heat rejection. They are similar to, but do not include, packaged terminal ACs, room ACs, and dehumidifiers. Like other ACs, portable ACs contain a compressor, evaporator, condenser, fan, and refrigerant system. Unlike other AC products, portable ACs are freestanding and are not installed in a wall or window.



Quick Links

to Relevant Code Sections

California Appliance Efficiency Regulations - Title 20

- ✦ [Section 1602\(d\)](#) – Definitions
- ✦ [Section 1604\(d\)](#) – Test Methods for Portable Air Conditioners
- ✦ [Section 1605.1\(d\)](#) – Federal and State Standards for Portable Air Conditioners
- ✦ [Section 1606](#) – Filing by Manufacturers; Listing of Appliances in Database
- ✦ [Section 1607](#) – Marking of Appliances
- ✦ [Section 1608](#) – Compliance, Enforcement, and General Administrative Matters

Federal Requirements

The U.S. DOE standards require the Combined Energy Efficiency Ratio (CEER) of single-duct and dual-duct portable ACs manufactured on or after January 10, 2025, to meet the following criterion:

The CEER may not be less than the value calculated in the following equation, where SACC is the seasonally adjusted cooling capacity of a portable AC:

$$\text{CEER (Btu/Wh)} = 1.04 \times \frac{\text{SACC}}{3.7117 \times \text{SACC}^{0.6384}}$$

Test Procedure

The test method for portable ACs is defined in the Code of Federal Regulations, [10 CFR, Subpart B, Appendix CC to Subpart B of 430 – Uniform Test Method for Measuring the Energy Consumption of Portable Air Conditioners](#).

To develop the product CEER rating, portable ACs are tested under standardized temperature conditions to see how much energy they use. More efficient products use less energy to provide a standardized amount of cooling, while less efficient products use more energy to provide the same amount of cooling.

The test procedure measures portable AC cooling capacity and the power input required for product operation. The procedure also adds factors to account for seasonal variations as well as heat losses through the product ducts and casing. Because product operation is less efficient on very hot days, dual-duct portable ACs are tested at two inlet air conditions: a high-temperature (95°F dry-bulb and 75°F wet-bulb) operating condition that represents peak usage and an expected average operating condition (83°F dry-bulb and 67.5°F wet-bulb). Since single-duct portable ACs draw air from inside a conditioned space, they are tested at an inlet air condition of 80°F dry-bulb and 67°F wet-bulb, mirroring the indoor air temperature. The overall efficiency calculation weighs performance on average days more than performance on hot days to better represent the majority of time that portable ACs are running.

For more information about the test labs, visit the [CEC website](#).

CEER & SACC

- ★ The Combined Energy Efficiency Ratio (CEER) compares a product's cooling capacity to its power input, using the seasonally adjusted cooling capacity (SACC) metric. It takes into account the energy used while the air conditioner is running, as well as the standby power used when the unit is not running but is powered on.
- ★ The SACC (Btu/h) represents the weighted average cooling capacity of a unit under average day and peak day test conditions.

How to Comply

Compliance entails all of the following:

- ✦ Meeting the applicable design or performance standards (efficiency standards)
- ✦ Testing regulated products using the required test method by a lab approved by the CEC
- ✦ Marking the regulated product in accordance with Title 20, [Section 1607](#) and
- ✦ Certifying the product to the DOE's [CCMS](#) and the CEC's [MAEDbS](#)

Even if a portable AC meets all performance, testing, and marking requirements outlined in Title 20, it is illegal to sell or offer for sale a regulated product in California if the model is not certified to the CEC MAEDbS. Everyone in the sales chain – including manufacturers, distributors, retailers, contractors, and importers – is responsible for ensuring regulated products are listed in the MAEDbS. To learn more about the MAEDbS and how to use it, view the [Energy Code Ace Title 20 On-Demand Video Training](#).

Retailer Responsibilities

Retailers are required to ensure all portable ACs sold or offered for sale are listed in the [MAEDbS](#) as meeting applicable federal requirements. They must verify that only compliant products are being sold to consumers.

Certified products will appear on the MAEDbS as available.



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For More Information



**CALIFORNIA
ENERGY COMMISSION**

energy.ca.gov

- ★ **Appliances Call Center:** (888) 838-1467 or outside California (916) 651-7100. Questions may also be emailed to appliances@energy.ca.gov
- ★ [California Appliance Efficiency Standards Site](#)
- ★ [Modernized Appliance Efficiency Database \(MAEDbs\)](#)

U.S. Department of Energy

- ★ [Office of Energy Efficiency & Renewable Energy Appliance and Equipment Standards Program](#)
- ★ [Compliance Certification Management System \(CCMS\)](#)



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A suite of interactive tools to help you understand the compliance process, required forms, installation techniques, and energy efficiency regulations applicable to Title 20 and Title 24, Part 6

- ★ [Title 20 Reference Ace](#) - Navigate the Title 20 Standards using an index, keyword search, and hyperlinked text.



A portfolio of on-demand, live online, and in-person training on Title 20 and Title 24, Part 6, tailored to a variety of industry professionals to address key requirements

- ★ [Title 20 Training Ace](#)
- ★ [Title 20 Essentials: Using MAEDbs for Manufacturers](#)



An array of downloadable materials providing practical and concise guidance on how and when to comply with Title 20 and Title 24, Part 6

- ★ [Title 20 Basics - Manufacturers](#)
- ★ [Title 20 Basics - Retailers, Distributors, and Installers](#)
- ★ [MAEDbs 101](#)

 **Submit a Question** - Get your Title 20 questions answered directly by experts. Select the 'Appliances' drop-down menu, navigate to 'Resources,' and select 'Submit a Question.'

Energy Code Ace is here to help you ensure your products meet Title 20 requirements. This website can help prevent issues that impact your sales and bottom line, including civil penalties under Title 20 Section 1609 for non-compliant products. Create an account on the Energy Code Ace website and select an industry role for your profile to receive messages about our offerings!



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