STANDARD

ANSI/AMCA Standard 230-23

Laboratory Methods of Testing Air Circulating Fans for Rating and Certification

An American National Standard
Approved by ANSI on February 10, 2023

Air Movement and Control Association International

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AMCA Publications

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1. Purpose

The purpose of this standard is to establish uniform methods for laboratory testing of air circulating fans to determine performance for rating or certification.

2. Scope

This standard shall be used as the basis for testing electrically powered air circulating fan heads and ceiling fans when air is used as the test gas. The scope is limited to air circulating fans with an input power greater than or equal to 125 W—except for ceiling fans, which do not have a lower input power limit. The diameter of the fan being tested shall be limited by the minimum dimensions as shown in the applicable test figures.

Exclusions:

- Jet fans as defined in ANSI/AMCA Standard 214
- Powered roof ventilators, induced flow fans, laboratory exhausts
- Positive pressure ventilators as defined in ANSI/AMCA Standard 240
- Compressors
- Positive displacement machines

Only tests that fulfill all mandatory requirements of this standard may be designated as tests conducted in accordance with this standard.

3. References

ANSI/AMCA Standard 208-18, Calculation of the Fan Energy Index, Air Movement and Control Association International Inc., Arlington Heights, IL USA.

ANSI/AMCA Standard 214-21, Test Procedure for Calculating Fan Energy Index (FEI) for Commercial and Industrial Fans and Blowers, Air Movement and Control Association International Inc., Arlington Heights, IL USA.

ANSI/AMCA Standard 240, Laboratory Methods of Testing Positive Pressure Ventilators for Aerodynamic Performance Rating, Air Movement and Control Association International Inc., Arlington Heights, IL USA.

ANSI/AMCA Standard 250, Laboratory Methods of Testing Jet Fans for Performance, Air Movement and Control Association International Inc., Arlington Heights, IL USA.

ANSI/ASHRAE Standard 41.1-2020, Standard Methods for Temperature Measurement, American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc., Peachtree Corners, GA USA.

ANSI/ASHRAE Standard 41.11-2020, Standard Methods for Power Measurement, American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc., Peachtree Corners, GA USA.

ASHRAE Handbook — Fundamentals, American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc., Peachtree Corners, GA USA.