ANSI/AHRI Standard 440 with Addendum 1 (Formerly ARI Standard 440)

2008 Standard for

Performance Rating of Room Fan-Coils

Approved American National Standard
ANSI

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Full document details: AHRI Standard 440-2008 - Performance Rating of Room Fan-Coils - Addendum 1

ANSI/AHRI STANDARD 440 -2008 WITH ADDENDUM 1, *PERFORMANCE RATING OF ROOM FAN-COILS*

April 2014

Note: This addendum is not ANSI approved but will be submitted to ANSI for approval.

Addendum 1 (dated April 2014) of ANSI/AHRI Standard 440-2008 modifies ANSI/AHRI Standard 440-2008 as follows. The following changes have been incorporated (additions are shown by shading and deletions are shown by ~~strikethroughs~~) into Insulation Efficiency Test in Sections 8.1.1 and 8.1.2 of the already published 2008 version of ANSI/AHRI Standard 440 -2008.

The changes include:

8.1.1 ~~*Temperature*~~ *Test Conditions.*

a. Ambient air temperature: 80.0°F [26.7°C] dry–bulb, 75.0°F [23.9°C] wet-bulb
b. Entering water temperature: ~~43°F [6.1°C]~~ 42°F [5.6°C]
c. ~~Water temperature rise: 6.0°F [3.3°C]~~ Water flow rate from standard cooling rating test

8.1.2 *Procedure.* After establishing specified temperature conditions, the unit shall operate continuously at its lowest fan speed for a period of ~~four~~ two hours at the following external static pressure:

a. Free Delivery 0.0 in H_2O [0.0 kPa]
b. Furred-in 0.0 in H_2O [0.0 kPa]
c. High-Static 0.050 in H_2O [0.012 kPa]

For equipment with motor speed taps, the unit shall be set to the lowest fan-speed tap. For equipment without motor speed taps, the unit shall be run at a fan-speed which produces between 60% and 70% of the airflow at which the standard cooling rating test was conducted, with instructions provided by the manufacturer on how to adjust the motor controls to achieve this setting.

For equipment with a single fan speed, the external static pressure specified in the standard cooling rating test shall be used.

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IMPORTANT

SAFETY DISCLAIMER

AHRI does not set safety standards and does not certify or guarantee the safety of any products, components or systems designed, tested, rated, installed or operated in accordance with this standard/guideline. It is strongly recommended that products be designed, constructed, assembled, installed and operated in accordance with nationally recognized safety standards and code requirements appropriate for products covered by this standard/guideline.

AHRI uses its best efforts to develop standards/guidelines employing state-of-the-art and accepted industry practices. AHRI does not certify or guarantee that any tests conducted under its standards/guidelines will be non-hazardous or free from risk .

AHRI CERTIFICATION PROGRAM PROVISIONS

Scope of the Certification Program

The certification program includes Room Fan-Coils as defined in Section 3, having air-delivery capacities of 1500 cfm [0.7080 m^3/s] or less.

Room Fan-Coils employing Volatile Refrigerant Coils or steam coils, central-station air-handling units as defined in AHRI Standard 430, and unit ventilators as defined in ARI Standard 840 are not included.

Certified Ratings

The following certification program ratings shall be verified by test at the Standard Rating Conditions for Cooling Capacity (Section 6.3.1), and for power input (Section 6.3.4):

1. Total Cooling Capacity, Btu/h [W]
2. Sensible Cooling Capacity, Btu/h [W]
3. Power Input, W [W]

Conformance to the requirements of the insulation efficiency test and the low voltage test (Section 8) shall also be verified by test.

Note:

This standard supersedes ARI Standard 440-2005.

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