

# **AMCA Publication 511-10 (Rev. 2016)**

**Certified Ratings Program  
Product Rating Manual for  
Air Control Devices**



**AIR MOVEMENT AND CONTROL  
ASSOCIATION INTERNATIONAL, INC.**

The International Authority on Air System Components

# AMCA Publication 511-10 (Rev. 2016)

## Certified Ratings Program Product Rating Manual for Air Control Devices

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Air Movement and Control Association International  
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Arlington Heights, Illinois  
60004

## **AMCA Publications**

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The 2016 revision includes changes to the backdraft damper leakage section will allow manufacturers to show compliance with the new 2015 IECC and ASHRAE 90.1 - 2013 leakage requirements for non-motorized dampers. The proposal increases the number of samples required to be leakage tested from one to three.

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## 1. Purpose

AMCA Publication 511 dictates proper presentation of data and other required technical procedures for certification of air control devices under the AMCA Certified Ratings Program. This manual shall be used in conjunction with the current edition of AMCA Publication 11.

## 2. Scope

The products within the scope of this program are air control devices for use in general ventilation and air conditioning systems.

This program shall apply only to complete cataloged series of sizes. It shall not apply to individual sizes in a series, or part of a series of sizes, or to special units on which catalog ratings are not published.

The AMCA Certified Ratings seal shall be used only in connection with the specifically licensed device. The AMCA Seal shall be used only on complete units. The application of the AMCA seal to individual component parts, such as blades, frames, etc., is not permitted.

## 3. Definitions and Symbols

### 3.1 Definitions

All definitions found in AMCA Publication 11, as well as the definitions in this section, apply to this program.

#### 3.1.1 Appurtenance

Appurtenance is any item in the air stream or on the inlet or discharge of the air control device that may affect the performance of the air control device.

An appurtenance shall be considered a part of the air control device if it is in place when the device is tested for performance rating and the effect of the appurtenance is included in the cataloged performance rating.

#### 3.1.2 AMCA Certified Ratings Program

The Certified Ratings Program is a program for certifying a product's performance ratings, as defined in this document.

#### 3.1.3 Performance rating(s)

Performance ratings are data generated from actual tested products used to derive the certified and published information.

#### 3.1.4 Shall and should

The word *shall* indicates a mandatory requirement; the word *should* indicates an advisory statement.

#### 3.1.5 Aerodynamically similar

Louver and damper designs are considered to be aerodynamically similar if the profiles of the components in the air stream are geometrically similar. The blades shall be in relative position to the frame and the center-to-center dimensions shall be the same. Frame, blade stops and blade profiles may have slight variances due to manufacturing methods. Blades must have the same streamline shape in that their leading and trailing edges shall be dimensionally equal. The overall angle or curvature of the blade must be the same. Slight deviations in material thickness shall not reduce the overall free area by more than 5% for dampers and 2.5% for louvers. Blade seals shall have the same profile, be of the same durometer and be secured to the blade in the same manner.

In addition to the requirements described above, louver or damper models claiming aerodynamic similarity for the purpose of certifying leakage performance or energy efficiency performance shall meet the following criteria:

The frames and blades shall have a modulus of elasticity (E) greater than or equal to the originally licensed model.

The blade action (i.e., whether the damper is parallel or opposed blade) shall be the same as the originally licensed model.