



TECHNICAL CERTIFICATION RULES OF THE EUROVENT CERTIFIED PERFORMANCE MARK



Fans

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The purpose of this Technical Certification Rules is to prescribe procedures for the operation of the Eurovent Certified Performance (ECP) certification programme for Fans (FAN), in accordance with the Certification Manual.

Modifications as against last version:

| No. | Modifications | Section | Page |
|------------|--|----------------|-------------|
| 1 | New structure | all | all |
| 2 | Alignment with AMCA certification process. One annual audit is required in addition. | all | all |

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I. GENERAL INFORMATION

I.1. Scope

I.1.1. General

The programme scope covers all Fans intended to be used in Air Handling Units and covered by the scope of “AMCA 211 – Certified Ratings Program Product Rating Manual for Fan Air Performance”.

I.2. Certified performances

The following performance items can be certified:

- Air performance according to AMCA 211 – Certified Ratings Program Product Rating Manual for Fan Air Performance
- Sound (optional) according to AMCA 311 – Certified ratings program Product Rating Manual for Fan Sound Performances
- Efficiency (optional) according to ANSI/AMCA 208 – Calculation of the Fan Energy Index

I.3. Definitions

In addition to the definitions specified in the Certification Manual, the definitions listed in ANSI/AMCA 99 apply.

I.4. Contributors

The lists of contributors are given for information and may be modified by EUROVENT CERTITA CERTIFICATION whenever necessary.

I.4.1. Audit body

The audit functions are performed by the following body(ies), called audit body:

EUROVENT CERTITA CERTIFICATION SAS
34 rue Laffitte
F- 75009 PARIS
Tel: + 33 1 75 44 71 71
www.eurovent-certification.com

I.4.2. Certification body

Part of the certification process can be carried out by the following certification body:

AMCA International
30 West University Drive
Arlington Heights
IL 60004 U.S.A.
Tel: + 1 847-394-0150
www.amca.org

II. REQUIREMENTS OF THE REFERENCE DOCUMENT

II.1 Reference documents

The test procedure is detailed in the technical appendix and in the product and test standards.

The applicable standards are as follow (non-exhaustive list):

- AMCA 11 – Certified Ratings Program Operational Manual
- AMCA 211 – Certified Ratings Program Product Rating Manual for Fan Air Performance
- AMCA 311 – Certified ratings program Product Rating Manual for Fan Sound Performances

- AMCA 206 – Fan Efficiency Grade Application Guide
- ANSI/AMCA 99 – Standards Handbook
- ANSI/AMCA 210 – Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating
- ANSI/AMCA 300 – Reverberant Room Method for Sound Testing of Fans
- ANSI/AMCA 301 – Methods for Calculating Fan Sound Ratings from Laboratory Test
- ANSI/AMCA 208 – Calculation of the Fan Energy Index
- ISO 5801 – Fans – Performance Testing Using Standardized Airways
- ISO 3744 – Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure - Engineering Methods for an Essentially Free Field Over a Reflecting Plane
- ISO 3745 – Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure – Precision Methods for Anechoic Rooms and Hemi-Anechoic Rooms
- ISO 13347-3 – Industrial Fans – Determination of Fan Sound Power Levels Under Standardized Laboratory Conditions, Part 3: Enveloping Surface Methods
- ISO 10302 – Acoustics – Method for Measurement of Airborne Noise Emitted by Small Air Moving Devices

The Applicant/Participant is responsible to ensure the compliance of products with the applicable regulations. For instance, it must comply with Commission Regulation (EU) No 1253/2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to eco-design requirements for ventilation units on the EU Single market.

II.2 Specific audit requirements

Declaration consistency

The following points or documents can be checked to verify consistency between what is declared and what is sold:

- Quotations
- Selection tool printouts
- Brochures
- Technical documents
- Contractual technical documents associated with an offer or an order acknowledgement.
- Orders
- Consistency between what is declared and what is produced:
- Bill of Materials of key components
- Production order
- Line assembly follow up files.
- Quality Control documents
- Test documents
- Delivery documents
- Consistency between what is tested (in the frame of the admission and surveillance procedures) and what is produced:
- Component inventory turnaround log

Key components identification on manufacturing/assembling sites (in component stocks, production lines and on the final products)

Production identification and traceability:

The participant shall use suitable means to identify the products by a unique identification code (the minimum traceable information: production plant, production batch number, components), and the retention of documented information (records) necessary to enable traceability.

Use of mark logo:

The participant shall respect the marking requirements of the Certification Manual if the logo is used on its products and/or services and all the related documentations.

Management of customers claims:

Customer claims and their treatment related to certified products shall be done, recorded and shall remain available.

Certification documents:

Up-to-date certification documents (Certification Manual for the ECP mark, dedicated Technical Certification Rules) shall be available in the applicant/participant quality documentation system.

Certification

All manufacturing places shall be certified according to ISO 9001 by a National Accreditation Body signatory to the EA (European co-operation for Accreditation) or IAF (International Accreditation Forum) Multilateral Agreement (MLA).

II.3. Marking

It is highly recommended that the participating company indicates participation in the EUROVENT CERTIFIED PERFORMANCE (ECP) programme for Fans by means complying with the provisions laid down in the Certification Manual.

II.3.1 Display of Eurovent Certified Performance logo on production units

The provisions of the Certification Manual apply.

Eurovent certified fans cannot be promoted by AHU manufacturers if they are integrated in an AHU that is not Eurovent certified.

II.3.2 Display of Eurovent Certified Performance logo on technical documentation

The provisions of the Certification Manual apply.

III. CERTIFICATION PROCESS

III.1 Admission procedure

III.1.1 Declaration of data

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The Applicant, after signing the Certification Agreement, shall send to EUROVENT CERTITA CERTIFICATION all information required for the qualification:

- Product types
- Range names
- Model names
- Catalogues or software names, version and web links.
- Manufacturing places (cities and countries)

All characteristics and performances shall be expressed in SI units.

Submittal of data shall be made by filling in the forms provided by EUROVENT CERTITA CERTIFICATION as.xlsx files. The forms shall be sent by e-mail to EUROVENT CERTITA CERTIFICATION.

III.1.2 Admissibility of the application

The provisions of the Certification Manual apply.

Applicants shall have their products AMCA certified to be able to apply for these products to this Eurovent certification programme.

As they are already certified by AMCA, applicants are not required to perform tests during the admission process.

III.1.3 Implementation of checking operations

The provisions of the Certification Manual apply.

III.1.3.1 Initial admission audit

The provisions of the Certification Manual apply.

One (1) manufacturing place shall be audited. The duration of the site audit is one (1) day. This duration can be adjusted in the case of carrying out a joint audit with other certifications.

III.1.3.2 Selection of units to be tested

As they are already certified by AMCA, applicants are not required to perform tests during the admission process.

III.1.4. Evaluation and decision

The provisions of the Certification Manual apply.

III.2. Surveillance procedure

The provisions of the Certification Manual apply.

III.2.1. Implementation of surveillance operations

III.2.1.1. Surveillance audit

In addition to the provisions laid down in the Certification Manual, the following requirements apply:
One (1) manufacturing place shall be audited each year. The duration of the site audit is one (1) day.
This duration can be adjusted in the case of carrying out a joint audit with other certifications.

III.2.1.2. Selection of units to be tested

As they are already certified by AMCA, participants are not required to perform tests during the admission process.

Validity of the AMCA certificate shall be checked by Eurovent Certita Certification.

III.2.1.3. Technical and commercial documentation check

The provisions of the Certification Manual apply.

III.2.2. Evaluation and decision

The provisions of the Certification Manual apply.

III.3 Declaration of modifications

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The applicant/participant shall inform Eurovent Certita Certification of any modification of the product portfolio by updating the declaration file. Non-compliance of the applicant/participant is considered as non-application of procedures.

III.3.1. Temporary or permanent cessation of production of a certified product

The provisions of the Certification Manual apply.

III.4. Suspension/cessation conditions

The provisions of the Certification Manual apply.

APPENDIX A. TECHNICAL APPENDIXES

A.1 Purpose

The purpose of this document is to establish definitions and specifications for testing and rating of Fans for the related Programme.

A.2 Testing requirements

The aerodynamic test shall be conducted in accordance with:

- ANSI/AMCA Standard 210, Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating

OR:

ISO 5801 – Fans – Performance Testing Using Standardized Airways

The sound test shall be conducted in accordance with:

- ANSI/AMCA Standard 300, Reverberant Room Methods for Sound Testing of Fans

OR

- ISO 3744 – Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure - Engineering Methods for an Essentially Free Field Over a Reflecting Plane
- ISO 3745 – Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure – Precision Methods for Anechoic Rooms and Hemi-Anechoic Rooms
- ISO 13347-3 – Industrial Fans – Determination of Fan Sound Power Levels Under Standardized Laboratory Conditions, Part 3: Enveloping Surface Methods

ISO 10302 – Acoustics – Method for Measurement of Airbourne Noise Emitted by Small Air Moving Devices

A.3 Rating requirements

The provisions of the following standards apply:

- AMCA 211 – Certified Ratings Program Product Rating Manual for Fan Air Performance
- AMCA 311 – Certified ratings program Product Rating Manual for Fan Sound Performances apply.

A.4 Certified Performance Items

Air performances are listed in AMCA 211 and are given below:

- Volumetric airflow rate
- Fan static pressure and/or fan total pressure
- Choice of (one or more):
 - Fan input power.
 - Maximum fan input power over the range catalogued.
 - Fan input power at the stated duty.
 - Maximum motor (or motor control) input power, nominal efficiency and/or motor model number, voltage and frequency over the range catalogued.
 - Motor (or motor control) input power, nominal efficiency and/or motor model number, voltage and frequency at the stated duty.
 - Impeller speed
 - Inlet air density (if other than standard air)

- If publishing axial impeller ratings:
 - Impeller diameter
 - Cylinder length
 - Tip clearance
 - Geometry of inlet shape
 - Position of the impeller
 - Driver distance

Sound performances are listed in AMCA 311 and are given below:

- Octave band ratings
- LwA ratings

Energy efficiency performances are listed in AMCA 211 and are given below:

- FEI
- FEG
- CFEI

A.5 Acceptance criteria

The provisions of the following standards apply:

- AMCA 211 – Certified Ratings Program Product Rating Manual for Fan Air Performance
- AMCA 311 – Certified ratings program Product Rating Manual for Fan Sound Performances apply.

APPENDIX B. FORMS

B.I. Form FAN-1: Declaration file

The form FAN-1 (declaration file) to be filled in shall be sent by Eurovent Certita Certification to:

- applicants who have signed the license agreement,
- participants on an annual basis before the deadline specified in the Certification schedule.

A template will be available for information and upon request.

B.I. Form FAN-2: Technical datasheet (TDS)

The form FAN-2 (Technical Data Sheet) to be filled in shall be sent by Eurovent Certita Certification to applicants/participants who have returned the form FAN-1 duly completed.

A template will be available for information and upon request.



Performances on line
www.eurovent-certification.com

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