OPERATIONAL MANUAL
for the
CERTIFICATION
of
Evaporative Cooling
OM-24-2018
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I. PURPOSE

The purpose of this manual is to prescribe procedures for the operation of the Eurovent Certified Performance (ECP) certification programme for Evaporative Cooling (EC), in accordance with the Certification Manual.

II. SCOPE

II.1. General

The programme for Evaporative Cooling is divided in three sub-programmes, as it applies to Evaporative Cooling units in the following groups:

- Direct Evaporative Cooling (DEC)
- Indirect Evaporative Cooling (IEC)
  - with primary outside air
  - with separation of external and room air
- Evaporative Cooling Equipment (ECE)

Companies may apply to participate in any of the above certification sub-programmes

a. Direct Evaporative Cooling (DEC)

The following units are specifically excluded from the scope:

- Units with an air flow less than 2 500 m$^3$/h
- Units with an air flow greater than 120 000 m$^3$/h
- Portable air cooling units

b. Indirect Evaporative Cooling (IEC)

The scope includes:

- Indirect Evaporative Cooling units with primary outside air
- Indirect Evaporative Cooling units with separation of the outside and room air

Indirect Evaporative Cooling units with direct evaporative cooling stage are accepted under the scope.

Indirect Evaporative Cooling units with DX coil (integrated in the unit) or chilled water coil (integrated in the unit) are accepted under the scope.

The following units are specifically excluded from the scope:

- Units with an air flow less than 2 500 m$^3$/h
- Units with an air flow greater than 120 000 m$^3$/h

c. Evaporative Cooling Equipment (ECE)

The following technologies are accepted under the scope of Evaporative Cooling Equipment:

- Water spray system
- Wet pads/media
- Ultrasonic units
The following units are specifically excluded from the scope:

- Units with an water flow less than 0.5 l/h
- Units with an water flow greater than 5 000 l/h
- ECE with integrated heat exchanger

### III. BASIC OUTLINE OF THE PROGRAMME

Participation in this Eurovent Certified Performance programme consists of the following:

#### III.1. Application

The Applicant, after signing the License Agreement, shall send to Eurovent Certita Certification all information required for the qualification according to Rating standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018: software name and version, the software itself, declaration file and relevant literature (see also §IV.1).

#### III.2. Qualifying procedure

Once the application is completed, the qualification procedure is as follows:

- For Brand Name (BN) companies, applicable steps of the software checking procedure and audit procedure shall be conducted (see IV.4 and IV.5).
- For Original Equipment Manufacturers (OEM) and if a selection software is used for the design of the product, Eurovent Certita Certification checks the software compliance to general (see Certification Manual) and specific (see §IV.4.a) requirements and its consistency with the declaration file. Then, Eurovent Certita Certification proceeds to a test selection (see §IV.2) based on the declaration file EC-1 and requests the performances declaration together with selected units delivery to the laboratory. The independent laboratory staff proceeds to product performance testing on the selected units according to the procedure detailed in §IV.3. A “test-check” (see §IV.3.g) is then performed by Eurovent Certita Certification (applicable only for participant using a selection software for the design of their products) to evaluate the test success. In the meantime, an auditor appointed by Eurovent Certita Certification shall audit each manufacturing site (see §IV.5).

If the aforementioned checks prove the ranges compliance with the requirements specified in Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018 and that all other requirements from the present Operational Manual are fulfilled, the certification is granted. If not, the procedure for failure treatment shall be applied.

When certified, the range(s) is (are) published on the Eurovent Certified Performance (ECP) website as specified in §V.1. Once the certificate is received, the participant is entitled to use the certification mark according to applicable requirements.

#### III.3. Repetition procedure

Every year, Eurovent Certita Certification checks whether the certified products still fulfil the requirements:
• For Brand Name (BN) companies, applicable steps of the software checking procedure and audit procedure shall be conducted annually (as per Certification Manual (latest version in force))

• For Original Equipment Manufacturers (OEM), repetition tests in the independent laboratory, software checking procedure (applicable only for participant using a selection software for the design of their products) and factory audit shall be conducted annually in compliance with the Certification Schedule.

For the repetition procedure, the certification is renewed at the date specified in the Certification Schedule on condition that:

• The previous test campaign (N-1) has been successfully completed;

• The scheduled audits for campaign N have been performed by the auditor and are successful or the corrective actions plan is considered satisfactory;

• The product delivery together with the technical datasheet and the payment have been completed for the test campaign N.

The company receives then a renewed certificate and the display of data is maintained on the Eurovent Certified Performance (ECP) website. If not, failure treatment shall be applied.

III.4. Failure treatment

When a range fails to comply with the requirements of the Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018, the failure treatment shall be applied.

III.5. Challenge procedure

Under special conditions a challenge procedure may be carried out as described in the Certification Manual.

IV. OPERATION OF THE PROGRAMME

IV.1. Declaration of data

All characteristics shall be expressed in SI units. Maximum of 3 significant digits shall be used for:

• In the case of DEC: cooling capacity, air flow, EER, saturation efficiency, water consumption, sound power level (optional)

• In the case of IEC: Total cooling capacity, room cooling capacity, air flow, EER, saturation efficiency, water consumption, sound power level (optional)

• In the case of ECE: cooling capacity, Evaporation Efficiency, EER, water consumption, pressure drop (wet and dry)

Submittal of data shall be made by filling in the forms provided by Eurovent Certita Certification as .xls or .xlsx files. The forms shall be sent by e-mail to Eurovent Certita Certification within the time limits specified in Certification Schedule.

Copies of the forms are part of this manual (see Appendix B):

• Declaration file EC-1 will be used
  
  o for manufacturing companies (Original Equipment Manufacturer – OEM) to declare ranges, performance ratings and technical data.
for Brand Name (BN) companies to identify the corresponding models number of the original equipment manufacturer

- Technical data sheet EC-2 will be used to complete technical description of all raw material or incoming goods for the units selected.

The applicant/participant shall inform Eurovent Certita Certification of any modification of the product portfolio by updating the declaration file (EC-1) and sending the updated selection software together with the software update record sheet EC-3. Non-compliance of the applicant/participant is considered as non-application of procedures (see §IV.7).

Eurovent Certita Certification decides whether the modification is significant for the certified performance data or not. In the case of significant modifications Eurovent Certita Certification is entitled to request adequate tests to check the influence on performance data. This test shall not be considered as a repetition one.

Confidentiality of certification data: All data submitted to Eurovent Certita Certification will be held confidential except for information authorised to be published in the Eurovent Certified Performance website.

A special unit is a unit with configurations affecting the performance at laboratories condition and not included in the latest version of the selection software. If a special unit is produced, the manufacturer has the right to not declare it.

Manufacturer shall declare special units non-certified Eurovent products.

IV.2. Selection of units to be tested

a. Selection for qualifying procedure

Eurovent Certita Certification shall select units to be tested on the basis of its evaluation of the declaration file EC-1 communicated by the applicant.

- In the case of DEC:
  Two (2) units per range with an airflow less than 20 000 m³/h to be tested in the independent laboratory shall be selected.
  One (1) unit per range with an airflow greater than 20 000 m³/h to be tested in the applicant’s laboratory (approved by Eurovent Certita Certification) shall be selected. This test will be supervised by an independent agency selected by Eurovent Certita Certification. If the applicant is not able to provide testing facilities to perform the test 1 additional unit of the same range shall be sent to the independent laboratory for testing, the air flow of this unit shall correspond to the maximum testing capacity of the independent laboratory. The tests will be performed on an existing unit, the selection shall then be based on the applicant’s orders. For this purpose the applicant shall issue to Eurovent Certita Certification his orders and technical specification 6 months prior to the test in order to select the unit to be tested.

- In the case of IEC:
  One (1) unit per range to be tested in the applicant’s laboratory (approved by Eurovent Certita Certification) shall be selected. This test will be supervised by an independent agency selected by Eurovent Certita Certification. If the applicant is not able to provide testing facilities to perform
the test one unit per range shall be sent to the independent laboratory for testing, the air flow of this unit shall correspond to the maximum testing capacity of the independent laboratory.

Eurovent Certita Certification is responsible for the selection of a unit for testing and may select any unit as defined below.

Units with an airflow greater than the maximum capacity of the participant laboratory cannot be tested. If a rerate of the software is required the complete range of airflow will thus be affected.

Selection from the existing available stock is preferable, even if only a single unit is available. If no stock is available a selection will be made from the Participant production schedule within a 6-month period.

If within this 6 months period only special units (as defined under section IV.1) have been produced by the manufacturer a special unit will be selected for the tests. The special unit configuration selected must then be added into the selection software of the manufacturer before it is tested.

For the penalty tests, Eurovent Certita Certification shall select the additional units from the failed range, if applicable.

- In the case of ECE:
  At least one (1) unit per Basic Model Group (BMG) shall be selected in order to cover the variations declared (see system and BMG definition in Rating Standard RS 9/C/006-2018). The units will be tested in the independent laboratory.

  Products with a water flow greater than 200 l/h are included in the scope (up to 5000 l/h) but won’t be tested due to the limits of the laboratory’s capacity. If a rerate of the software is required the products with an airflow greater than 200 l/h will thus be indirectly affected.

b. Selection for repetition procedure

For the repetition procedure, Eurovent Certita Certification shall select for testing:

- In the case of DEC:
  One (1) unit every five (5) models per range with the same conditions defined under the qualifying procedure.

- In the case of IEC:
  If not ISO 9001 certified one (1) unit per range every year to be tested in the participant’s laboratory.

  If ISO 9001 certified one (1) unit per range every two years to be tested in the participant’s laboratory.

- In the case of ECE:
  At least one (1) unit per Basic Model Group (BMG) shall be selected in order to cover the variations declared (see system and BMG definition in Rating Standard RS 9/C/006-2018) in the case of case A and B (see definition of case A and B in Rating Standard RS 9/C/006-2018). The units will be tested in the independent laboratory.
At least one (1) unit every two (2) Basic Model Groups (BMG) shall be selected in order to cover the variations declared (see system and BMG definition in Rating Standard RS 9/C/006-2018) in the case of case C (see definition of case C in Rating Standard RS 9/C/006-2018). The units will be tested in the independent laboratory.

If possible, a configuration different from that previously tested shall be selected.

c. **Selection for penalty tests**

Eurovent Certita Certification shall select units for penalty tests from the range which failed (see §IV.6.d). If this range is no longer produced in year N+1 (status “deleted” or “obsolete”) then the selection will be made from the range which is the most similar to the one that failed.

**IV.3. Tests at the independent laboratory/participant laboratory**

a. **General**

Within the programme, tests may be conducted under the following procedures:

- Scheduled tests in qualifying procedure
- Scheduled tests in repetition procedure
- Penalty test in repetition procedure
- Challenge procedure test

Tests shall be performed at the independent laboratory selected by Eurovent Certita Certification for DEC (unit less than 20 000 m³/h) and ECE and in the participant laboratory supervised by an expert of the independent laboratory for DEC (unit with an air flow greater than 20 000 m³/h) and IEC.

b. **Test at an independent laboratory:**

The laboratory shall have the responsibility of unpacking, handling, testing and re-packing the unit for shipment.

Before testing, the laboratory shall check the product dimensions against the values declared in the technical datasheet to ensure that the unit corresponds to the selection.

The laboratory shall not perform the test and contact Eurovent Certita Certification who shall ask the applicant/participant to send a new unit in the following cases:

- one of the dimensions is not compliant with the technical datasheet (see Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018 for acceptance criteria),
- one of the units components appears damaged (see IV.6.b “Initial Test failure”).

Units shall be assembled and installed in the test facility by the laboratory personnel in accordance with the manufacturer's published installation instructions. The applicant/participant shall therefore provide the laboratory with full information about the installation.
Upon justified request the applicant/participant’s staff may be allowed by Eurovent Certita Certification to attend the preparation and installation of units but not the test itself.

No applicant/participant’s personnel shall be present in the laboratory test facility during the tests.

If the test establishes that the unit fails to meet one or more of the requirements of the Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018, the laboratory shall promptly notify Eurovent Certita Certification to receive instructions regarding further actions (see §IV.6.c).

c. **Test at the participant laboratory**

Tests shall be performed by an independent agency, selected by and under contract with Eurovent Certita Certification. The same procedure as for testing at an independent laboratory shall be applied except that the Participant’s personnel is permitted in the laboratory test room facility. The test requirements in Participant laboratory are given in the relevant Rating Standards.

d. **Testing competitor products at a Participant laboratory**

Tests shall be performed by an independent agency, selected by and under contract with Eurovent Certita Certification. The application forms shall be checked by an independent agent and shall not be disclosed to the competitor laboratory. Problems of confidentiality shall be solved by a mutual agreement between Participants.

e. **Time limitation of acquisition and recovery of units**

Deadline for delivery of units to the laboratory, together with the technical data sheet completed and the payment, is defined in the Certification Schedule. For the qualifying procedure the deadline is specified in the notification received from Eurovent Certita Certification.

If elements are not delivered within the time limitations, it is considered as non-application of procedures (see §IV.7).

Eurovent Certita Certification has discretion not to discontinue the certification when the applicant/participant provides a definite and acceptable date of supply.

The applicant/participant has to recover the product(s) maximum six (6) working weeks after receiving the test reports and results. If the products are not recovered after this delay, the laboratory can destroy them and the corresponding invoice will be sent by Eurovent Certita Certification to the applicant/participant.

f. **Test conditions**

The tests shall be conducted at the conditions stated in Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018.

g. **Report of test results and test-check**

Upon completion of the tests on each unit, the laboratory will send the complete report as a .pdf file to Eurovent Certita Certification.
Eurovent Certita Certification shall recalculate the values with the software according to the test operating conditions displayed in the test report (“test-check”).

For each test, a performance item fails when relative/absolute deviation is not in accordance with the acceptance criteria (see Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018).

When one or more performance items fail, the test status is considered FAILED and the failure treatment corresponding to unit failure (see §IV.6.c) shall be applied.

Eurovent Certita Certification will forward a copy of the report together with the test check result sheet (EC-4) and, if applicable, the test rerate form (EC-5) to the applicant/participant (see Appendix B).

IV.4. Software checking procedure – Software pre-check

a. **Specific requirements**

In addition to the general software requirements which are described in the dedicated appendix of Certification Manual, the software must comply with the following:

- If the technical selection is protected by a username and/or password these shall be provided to the Eurovent Certita Certification representative.
- Software must comprise a reference (e.g. in bracket) with the vocabulary used in the present operational manual and the Rating Standard RS/9/C/004-2018, RS/9/C/005-2018 and RS/9/C/006-2018 at least for the following terms:
  - Every terms listed under the definition section of the relevant Rating Standard
  - Every certified data
- Standard air density is set at 1.20 kg/m³. Other values are authorized if accompanied by the underlying air density. The air density shall be clearly stated and present in the printouts. The selection software must have an option to print with the outputs at standard conditions.

b. **Acquisition and initial check of the software**

The software shall be sent together with all required data when the applicant subscribes for the qualification procedure. For the repetition procedure, the deadline for the delivery of the software to Eurovent Certita Certification is defined in the Certification Schedule (see Appendix A).

The software compliance to general (see dedicated chapter in the Certification Manual) and specific (see §IV.4.a) requirements is to be checked by Eurovent Certita Certification prior to selection.

Brand Name companies shall also send the operating version of the software to Eurovent Certita Certification to check the consistency with the OEM software version.

In case only in-house programmes are available, a person designated by Eurovent Certita Certification shall undertake himself the selection on site,
during a specific visit for Brand Name (BN) companies or the factory audit for OEM.

c. On-site checking of the software

The auditor appointed by Eurovent Certita Certification shall check the selection software consistency by selecting one (1) order at random from the applicant/participant sales records. This check shall be conducted:

- during factory audits for OEM;
- during the facility audit (where the orders to the customers can be accessed) for BN.

Whenever possible, the specific visit for BN shall be scheduled once the OEM has undertaken the testing procedure and/or the OEM on-site checking of software has been performed in order to compare the BN software results to recent OEM software results. Otherwise the software will be checked against the results of campaign N-1.

Whenever possible, one of the checks shall be performed on an order under manufacturing (for OEM) or preparation (for BN) so that the entire composition and technical specifications can be checked on site. For the OEM, the other check shall be performed for a unit similar or identical to one of the production units selected for the test campaign.

The applicant/participant’s representative shall fully inform the auditor by submitting all relevant assembly drawings, specifications and technical data sheets of the units under check.

For OEM, in case the products under manufacturing at the audit date do not fall into the certification programme scope, the auditor shall at least check the stock to verify that the raw material or incoming goods under common use in the factory are the same as that appearing in the declaration file EC-1.

The composition, technical specifications and performance from recalculation shall be the same as the one specified and announced to the customer. If one of the performance values obtained by the auditor differs by more than the acceptable tolerance, this is considered as a software consistency failure and the applicant/participant shall update his software according to the relevant procedure (see §IV.6.e). If in the meantime the applicant/participant has officially launched a new software version and recalculation is made with this version, deviations should be traceable in the software update record sheet (sheet EC-3, see B.III).

If it appears that different software had been used, this shall be considered as a non-respect of procedures (see §IV.7).

Eurovent Certita Certification shall transmit to the applicant/participant the result of the on-site check software as a .pdf file.

IV.5. Audit procedure

a. General

General audit requirements are stated in the Certification Manual.
The audit will consist of the on-site checking of software (see §IV.4.c) and the verification that the applicable requirements specified in paragraph IV.5.b are fulfilled.

Whenever necessary, Eurovent Certita Certification has the right to ask an auditor to conduct an additional audit to the applicant/participants' factory as well as to collect data directly from customer and perform extra checking of software.

If audits are not conducted within the time limitations specified in the notification received from Eurovent Certita Certification, it is considered as non-application of procedures (see §IV.7).

In case of force majeure (e.g. accidents, labour disputes, natural events, acts of war) which would not allow Eurovent Certita Certification to perform a factory audit Eurovent Certita Certification can decide to replace it by another mean of verification, to postpone it within a reasonable deadline or to cancel it.

b. Audit requirements

During the audit, the auditor will:

- check that the ECP mark is displayed on the production units and on the documentation in compliance with the requirements specified in the Certification Manual;
- check the operating software consistency as per paragraph IV.4.c;
- check that the products in the sales record and/or production line and/or stock are compliant with the declaration file EC-1;
- check that the corrective actions plan (see §IV.5.c) is completed or under implementation.
- check that the Eurovent Certified Performance logo must be displayed on every certified unit.

If the applicant/participant is not ISO 9001 certified then the auditor will also perform a complete review of the quality management system to check that:

- the suppliers are regularly evaluated and that the corresponding evaluations are recorded;
- the basic/key components and/or raw material are controlled at their reception;
- the products conform with the bill of material (BOM) specifications is regularly evaluated and the corresponding evaluations are recorded;
- the manufacturing process key steps are submitted to a validation check which results are recorded
- the factory personnel is qualified to perform the specific tasks if any;
- calibration of measuring devices is performed on a regular basis;
- production non-conformities are recorded and corrective actions initiated;
- customer complaints are registered and treated;
c. **Audit non-conformity**

After evaluation, a non-conformity is classified as critical when, on the basis of objective evidence, the following cases are identified:

- there is a significant risk to the product conformity with respect to specified requirements;
- there is a significant risk regarding the quality management system ability to control the product conformity to specified requirements;
- there is systematic or repeated non-conformity to a specified requirement;

Otherwise the non-conformity is classified as not-critical.

In case of non-conformity, the applicant/participant shall be requested to provide Eurovent Certita Certification with a corrective actions plan within four (4) weeks, and as defined by the auditor in case of critical non-conformity (see also §IV.6.g for the audit failure treatment procedure).

### IV.6. Failure treatment

**a. Reasons of failure**

The applicant/participant shall examine the reasons of the failure (see CM (latest version in force)).

**b. Initial Test failure**

If the unit is damaged this is considered as a “component failure”. The independent laboratory shall immediately inform Eurovent Certita Certification who will notify the applicant/participant. The applicant/participant shall deliver within four (4) working weeks a new copy of the same model, which then shall be tested according to the availability of the laboratory.

**c. Unit failure**

For each failed test, the applicant/participant has four (4) working weeks from the notification of failure to select between the following alternatives:

- Rerate the data by adapting the software to the test results. The corrected software with its new version number shall be sent to Eurovent Certita Certification who will check the consistency of the modifications. If the new software is in accordance with all the measurements, the range is published on the ECP website with the new rating and certification is granted/maintained. After verification (“test-recheck”), if the software is still not in accordance with the test results the certification shall be temporarily suspended until the software update proves consistency with the tests results.
- Ask for a second test on a new copy of the same unit scheduled by Eurovent Certita Certification according to the availability of the laboratory. This request shall be accompanied by a cause analysis and a relevant corrective actions plan. If this second test is successful, no revision of selection software will be required,
otherwise the data will have to be rerated and the software updated as explained in the rerating procedure (see §IV.6.f).

In both cases and in the case of a repetition, penalty tests might be requested as described in §IV.6.d.

d. **Penalty tests**

In case of established failure, units for penalty tests have to be selected as follows:

- **In the case of DEC:**
  - One (1) unit in case of failure on one of the certified performances

- **In the case of IEC:**
  - One (1) unit in case of failure on one of the certified performances

- **In the case of ECE:**
  - One (1) unit in case of failure on one of the certified performances

The penalty tests are full tests and shall be performed during the following year, in addition to scheduled repetition tests if any.

e. **Software consistency failure**

In case the software is proved inconsistent during the initial check or the on-site check, the applicant/participant shall update his software according to the Rerating procedure.

f. **Rerating procedure**

General Rerating procedure requirements are stated in the dedicated paragraph of the Certification Manual (section V.7.b).

g. **Audit failure**

The applicant/participant shall resolve the non-conformity within the time limitation agreed in the corrective actions plan.

In case of critical non-conformity, the certification may be suspended/not granted until the critical non-conformity resolution and the corresponding verification.

h. **Repeated failures along test campaigns**

This section refers to the corresponding section of the Certification Manual.

**IV.7. Non-application of procedures**

The general consequences of non-application of procedures are described in the relevant paragraph of the Certification Manual.

**V. PROMOTION OF THE PROGRAMME**

Promotion of the programme shall be done in accordance with relevant sections of the Certification Manual.
V.1. By Eurovent Certita Certification

The certified data of the certified products are published on the Eurovent Certified Performance website: [www.eurovent-certification.com](http://www.eurovent-certification.com).

Eurovent Certita Certification will supply, on request, to any interested party, the current status of any participant or of any range (new, certified, deleted or obsolete).

The following data are published:

- Name of Company
- Trade or brand name
- Certificate number
- Range designation
- Software name and version
- Production sites (city, country)
- Certified characteristics and performance items:
  - Total cooling Capacity [kW] (for DEC, IEC and ECE)
  - Room cooling capacity [kW] (for IEC)
  - Air Flow [m³/h] (for DEC and IEC)
  - Evaporation Efficiency [%] (for DEC and ECE)
  - Cooling effectiveness [%] (for IEC with primary outside air)
  - Wet Bulb approach effectiveness [%] (for IEC with separation of outside and room air)
  - Dry Bulb approach effectiveness [%] (for IEC with separation of outside and room air)
  - EER (for DEC and ECE)
  - Water Consumption [l/h] (for DEC, IEC and ECE)
  - Wet Pressure drop [Pa] (for ECE)
  - Dry Pressure drop [Pa] (for ECE)

V.2. By Participants

It is highly recommended that the participating company indicates participation in the ECP programme for Evaporative Cooling by the following means.

a. **Display of Eurovent Certified Performance logo on production units**

Each Participant is entitled to display the Eurovent Certified Performance mark on each production unit of models which have been certified. The Participant may affix the certification mark at any location thereon satisfactory to him. The Eurovent Certified Performance mark may be applied as part of nameplate of certified models providing it meets the requirements stated in Certification Manual.

Whenever the participant applies the Eurovent Certified Performance mark on the product or its packaging, it shall be done in compliance with the design, minimum size and proportions presented in the Certification Manual. Also, the Eurovent Certified Performance mark shall include in the dedicated area (see Certification Manual) the name of the relevant programme the product is certified for, i.e. “Evaporative Cooling” or the corresponding short name “EC”.
Depending on the readability of the range name & diploma (text size) on the certification mark, the participant shall use alternative methods as identified in the ECC certification manual to confirm with the promotion of the certified range(s) & diploma number(s).

Each Participant shall display the ECP mark, in an authorised manner, on units of models which have been certified. He may display the symbol on each certified production unit by means of a label, approved by Eurovent Certita Certification. It shall be noted that should the range name & diploma number not be included on the ECP mark, then this information shall be required on an alternative permanent location on the unit e.g. unit data name plate.

b. **Display of Eurovent Certified Performance logo on technical documentation**

When used in technical documentation as defined in the Certification Manual (electronic and printed catalogues, websites, on-line and off-line selection software, and specification sheets), carrying ratings or claiming certification of certified models, the Eurovent Certified Performance mark shall be used only for certified products. Non-certified products shall be clearly distinguished or presented in a separate document.

Whenever displayed on technical documentation, the ECP mark shall include in the dedicated area (see Certification Manual) the name of the relevant programme the product is certified for, i.e. “Evaporative Cooling” or the corresponding short name “EC”.

The ECP mark alone may be used in literature without certified performance data (general leaflets, advertising etc.).

Following the qualification procedure the basic documentation literature shall be submitted for approval to Eurovent Certita Certification. It shall be the responsibility of the participant to ensure compliance of other published literature.
APPENDIX A. CERTIFICATION PROCESS AND SCHEDULE

A.I. Scenario 1: Qualification procedure when the tests are performed in the independent laboratory.

1. Sign license agreement
2. Send product list + software
3. Checking of software
   - Software ok?
     - NO: Send revised software
     - YES: Report of selection for test
4. Factory audit
   - Audit report
     - Audit Ok?
       - NO: Corrective actions
       - YES: Systems delivery with TDS + perf. declaration
5. Testing in laboratory
6. Test check
   - Software ok?
     - NO: Test check report + test report
     - YES: Send revised software
7. YES: YES
   - EUROVENT CERTITA CERTIFICATE

8. Action for Eurovent Certita
9. Action for manufacturer
A.II. Scenario 2: Qualification procedure when the tests are performed in the participant laboratory

1. Sign license agreement
2. Send product list + software
3. Checking of software
   - Software ok?
     - YES: Report of selection for test
     - NO: Send revised software
4. Factory audit
5. Audit report
   - Audit Ok?
     - YES: Corrective actions
     - NO: Test check report + test report
6. Test check
   - Software ok?
     - YES: EUROVENT CERTITA CERTIFICATE
     - NO: Send revised software

- Action for Eurovent Certita
- Action for manufacturer
## A.III. Repetition procedure

### Table 1: Certification schedule for the repetition procedure

<table>
<thead>
<tr>
<th>Certification step</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eurovent Certita Certification asks for update of declaration list and software</td>
<td>30/11/n-1</td>
</tr>
<tr>
<td>from the participant</td>
<td></td>
</tr>
<tr>
<td>The participant sends the up-dated products declaration list and software</td>
<td>31/12/n-1</td>
</tr>
<tr>
<td>Eurovent Certita Certification checks the software compliance to requirements.</td>
<td>31/01/n</td>
</tr>
<tr>
<td>When the software does not meet the certification requirements the manufacturer</td>
<td></td>
</tr>
<tr>
<td>has to correct it and send a new version.</td>
<td></td>
</tr>
<tr>
<td>When the software meets the requirements the selection list is sent to the</td>
<td></td>
</tr>
<tr>
<td>participant for performance declaration</td>
<td></td>
</tr>
<tr>
<td>The participant returns the completed performance declaration file and the</td>
<td>15/02/n</td>
</tr>
<tr>
<td>software printouts for selected systems.</td>
<td></td>
</tr>
<tr>
<td>Product delivery (not applicable for part-lab) + Technical data sheet transmission</td>
<td>31/03/n</td>
</tr>
<tr>
<td>+ payment are completed by the participant</td>
<td></td>
</tr>
<tr>
<td>All regular tests, and penalty tests when applicable, are completed and test</td>
<td>31/05/n</td>
</tr>
<tr>
<td>reports sent by the independent laboratory or participant laboratory to Eurovent</td>
<td></td>
</tr>
<tr>
<td>Certita Certification</td>
<td></td>
</tr>
<tr>
<td>The auditor audits the participant’s facility and checks the software</td>
<td>15/06/n</td>
</tr>
<tr>
<td>consistency.</td>
<td></td>
</tr>
<tr>
<td>The participant sends the audit non-conformity corrective actions plan when</td>
<td>Deadline set up</td>
</tr>
<tr>
<td>applicable</td>
<td>by auditor</td>
</tr>
<tr>
<td>Eurovent Certita Certification performs a “test-check” to verify that the</td>
<td>30/06/n</td>
</tr>
<tr>
<td>software is in accordance with the test results. Eurovent Certita Certification</td>
<td></td>
</tr>
<tr>
<td>forwards the test reports together with the “test-check” results to the</td>
<td></td>
</tr>
<tr>
<td>participant.</td>
<td></td>
</tr>
<tr>
<td>The participant can ask for second tests before</td>
<td>31/07/n</td>
</tr>
<tr>
<td>The auditor evaluates the corrective actions plan relevance</td>
<td>31/07/n</td>
</tr>
<tr>
<td>Product delivery + Technical data sheet transmission + payment are completed by</td>
<td>15/09/n</td>
</tr>
<tr>
<td>the participant for second tests (when applicable).</td>
<td></td>
</tr>
<tr>
<td>Rerated software is sent to Eurovent Certita Certification (when applicable).</td>
<td>15/09/n</td>
</tr>
<tr>
<td>Eurovent Certita Certification sends the diploma if all requirements are</td>
<td>31/10/n</td>
</tr>
<tr>
<td>fulfilled.</td>
<td></td>
</tr>
<tr>
<td>Diploma validity</td>
<td>30/09/n+1</td>
</tr>
<tr>
<td>Second tests are completed and test reports sent by the laboratory to ECC</td>
<td>15/11/n</td>
</tr>
<tr>
<td>(when applicable).</td>
<td></td>
</tr>
<tr>
<td>Eurovent Certita Certification verifies the software compliance with the</td>
<td>15/12/n</td>
</tr>
<tr>
<td>second test results (&quot;test-recheck&quot;) and forwards the second test report</td>
<td></td>
</tr>
<tr>
<td>together with the &quot;test-recheck&quot; results to the participant (when applicable).</td>
<td></td>
</tr>
<tr>
<td>Final corrections of the software in case of second failure</td>
<td>31/12/n</td>
</tr>
</tbody>
</table>
APPENDIX B. FORMS

B.I. Form EC-1: Declaration file

The form EC-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.II. Form EC-2 : Technical datasheet (TDS)

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

A template will be available for information and upon request.
### B.III. Form EC-3 : Software update record sheet

**COMPANY LOGO**

XXXX Software name  
Software update record sheet

**Prepared by:**

<table>
<thead>
<tr>
<th>Software version</th>
<th>Revision date</th>
<th>Brief description of the update</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
B.IV. Form EC-4 : Test report result sheet
The form EC-4 (Test report result sheet) shall be sent by Eurovent Certita Certification to applicants/participants together with the test report.
A template will be available for information and upon request
**B.V. Form EC-5 : Test rerate form**

**CERTIFICATION PROGRAMME FOR EVAPORATIVE COOLING**

<table>
<thead>
<tr>
<th>RESPONSE FORM AFTER FAILURE ON TESTED UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>This response form shall be sent back by e-mail to Eurovent Certita Certification within four (4) working weeks maximum.</td>
</tr>
<tr>
<td>Without news from you within this delay, revision of selection software with rerated data will be required.</td>
</tr>
</tbody>
</table>

Date: ____________________  Name: ___________________________________________  Signature: ____________________

According to the document OM-24-2018, you are asked to select one of the following alternatives:

- ☐ Ask for a second test, i.e. on another copy of the same unit.
- ☐ Rerate the software in line with test results