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OPERATIONAL MANUAL
for the
CERTIFICATION
of
EUROPEAN HEAT PUMPS

OM-17-2018

Issued May 2018

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| No. | Modifications | Section | Page |
|-----|--|--------------------------|-------|
| 1 | Addition of the possibility for a company to benefit of the EuroHP certification with a different name than its subsidiary in the related NF414 programme. | III.1 | 4 |
| 2 | Update of diploma validity date | III.2 & APPENDIX A | 5 & 8 |

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Published by Eurovent Certita Certification
48-50 rue de la Victoire
75009 Paris, FRANCE

Tel: + 33 1 75 44 71 71
E-mail: m.lajeunesse@eurovent-certification.com

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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 EUROPEAN HEAT PUMPS (EuroHP), in accordance with the Certification Manual.

II. SCOPE

The programme scope covers selected models in selected ranges of Heat Pumps.

Note: "Certify-all", as defined in Certification Manual doesn't apply for the present programme.

Each range shall be certified according to one of the following related certification reference documents:

- OM-3 LCP-HP: "Operational Manual for the certification of Liquid Chilling Packages and Hydronic Heat Pumps"
- OM-1 AC: "Operational Manual for the certification of Air Conditioners"
- OM-15 VRF: "Operational Manual for the certification of Variable Refrigerant Flow systems"
- OM-13 RT: "Operational Manual for the certification of Rooftops"
- "Certification Reference for the Mark NF-414 for Heat Pumps"

The certification programmes *from* the above list are so called "related programmes". Are excluded from the scope Cooling-only units, i.e. units declared only in cooling mode.

ECP documents are downloadable at:

<http://www.eurovent-certification.com/en/Documentation>

NF document is downloadable at: <http://www.certita.org/en/certita-mark/nf-heat-pumps>

Note: "NF-414 Heat Pumps" and "NF-414" are used for "Certification Reference for the Mark NF-414 for Heat Pumps" and "Certification programme NF-414 for Heat Pumps" later in this document.

III. BASIC OUTLINE OF THE PROGRAMME

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

III.1. Application

Each Participant to an ECP and a NF related programme is automatically entitled to become Participant to the present programme without any administrative burden.

A group can benefit of the Euro-HP certification with a different name than its subsidiary already certified for the NF-414 programme.

By default, certification under the present programme applies automatically to all certified models of all ranges of the related programme falling under the scope of the present Operational Manual. European Heat Pumps certification may however be limited by the Participant to specific ranges or models, using the relevant Declaration list; it may also be refused by the participant for all his products, using a Waiver to be signed and sent out to Eurovent Certita Certification.

III.2. Validity of the certificate

The certification under the European Heat Pumps programme is directly linked with the related certification(s) and any admission, suspension or withdrawal in the related programme automatically applies to EuroHP without need for any additional formal notice or similar administrative burden.

If the validity date of the related certificate is modified, the EuroHP certificate will be modified the same way.

Generic cases of non-applications of procedures for the ECP programmes are described in chapter III.4. of Certification Manual and can apply if relevant.

III.3. Complaint procedure

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

IV. OPERATION OF THE PROGRAMME

IV.1. Declaration of data

a. Rated performance data

All characteristics and performance items shall be expressed in SI Units. Maximum of 3 significant figures shall be used for capacity below 100 kW (4 when above), EER, COP, SEER, SCOP, power consumption and water pressure drop and 2 significant figures for sound power.

Other details are given in the reference document of the related programme.

b. Certification forms

Licence Agreement and Application letter shall be sent to Eurovent Certita Certification as signed hard copy and their copy as pdf shall be sent to Eurovent Certita Certification.

All other forms and documents by e-mail or through a secured portal for file exchanges as .zip, .rar, .doc, docx, .xls, .xlsx and/or pdf file.

Declaration list (Form EHP-1) shall be used for declaration of trade names, ranges, models and data. For models submitted by a private brand manufacturer (BN) the form will be used to identify the corresponding model number of the original equipment manufacturer.

Copy of this form is part of this manual (see APPENDIX B).

Copy of all the other required forms is part the reference document of the related programme.

IV.2. Selection of units to be tested

The number of units tested each year per range, the test conditions (test points), deadline for delivery of units to the laboratory to be used for each type of unit and other detailed procedures are given in the reference document of the related programme.

IV.3. Failure treatment

Testing of performances: for each test, a performance item fails when the difference between the declared value and the measurement differs by more than the acceptable tolerance. A test fails when one or more performance items fail.

In case of failure, re-rating rules shall be applied (see V).

Other details are given in the reference document of the related programme.

V. RE-RATING RULES

Detailed rerating rules are given in the reference document of the related programme.

VI. PROMOTION OF THE PROGRAMME

This section refers to section VI of the Certification Manual and completes rights and duties from the reference document of the related programme which fully apply.

VI.1. By Eurovent Certita Certification

The certified data of the certified products are published on the Eurovent Certified Performance website: 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
- Production sites (city, country) when relevant
- Characteristics according to the reference document of the related programme
- Performance according to the reference document of the related programme

VI.2. By Participants

The participating company may indicate participation in the programme. When *it* does, it shall be by displaying the appropriate Eurovent Certified Performance mark on all specification sheets and in other literature carrying ratings, or claiming certification, of certified models (see Certification Manual).

a. Display of Eurovent Certified symbol on literature, software and advertising

Use of the Eurovent Certified Performance mark is described in Certification Manual. The following completes the description in this programme.

When publishing ratings a Participant shall include at least the certified performance in the standard rating conditions, as specified in the relevant Rating Standard.

b. Display of Eurovent Certified Performance symbol on production units

Each Participant is entitled to display the Eurovent Certified Performance mark on units of models which have been certified. The Participant may also display the Eurovent Certified Performance symbol on each certified unit by application of Eurovent Certified Performance mark. No data or other marking shall be added to the mark. The Participant may affix the certification symbol on single-package units, and on the component



containing the compressor for split units, at any location thereon satisfactory to him. The Eurovent Certified Performance mark may be applied as part of the nameplate of a certified model.

APPENDIX A. CERTIFICATION PROCESS AND SCHEDULE

For each repetition test campaign (year n), the following schedule is usually applied in each related programme:

| | |
|--|--|
| Eurovent Certita Certification asks for up-date of product list | annually |
| Participant confirms up-date of product list | maximum 1 month later |
| Eurovent Certita Certification sends selection list for test | maximum 2 months later |
| The Participant confirms selection list | maximum 1 month later |
| Delivery + submittal form + relevant documentation for test are completed for units selected for tests | maximum 3 months later |
| The Laboratory carries out all first tests | maximum 2 months after test is ordered |
| Eurovent Certita sends the test reports | maximum 2 months after reception of the lab report |
| <i>Diploma for EuroHP are valid until</i> | <i>End of validity of the certificate in the related programme</i> |

Detailed schedule depending of the type of unit is given in the reference document of the related programme.

APPENDIX B. FORMS

B.I. Form EuroHP-1 : Declaration file

| | Label | Description | Unit | | |
|----------|---|-------------------------------------|------|----------------------------|----|
| GENERIC | Product Number | (see Certification Manual) | | | |
| | Master product number | | | | |
| | Tested On | | | | |
| | Rerated on | | | | |
| | Created on | | | | |
| | Last update on Status | | | | |
| | Participant Name | | | | |
| | Product Name | | | | |
| | Trade Name | | | | |
| | Type of product | | | | |
| | Range Name | | | | |
| | BMG | | | | |
| | Ph | | | Heating Capacity | kW |
| | COP | | | Coefficient of Performance | - |
| | SCOP | Seasonal Coefficient of Performance | - | | |
| η_s | Seasonal space heating energy efficiency | % | | | |
| etc... | (see related reference document for full list of performances to declare for each type of heat pump) | | | | |

APPENDIX C. ECP MARK & ENERGY EFFICIENCY LABEL

C.I. Eurovent Certified Performance mark



Figure 1: Eurovent Certified Performance mark specifications and ECP mark for European Heat Pumps

See relevant specifications in Certification Manual.

The mark shall also include on first line of the green line: “European Heat Pump”, “N” and the Agreement number provided by Eurovent Certita *Certification* when certification is granted, and below, on the second line, the name of the certified range.

C.II. Eurovent Certified Performance energy efficiency label

Rules for the use of Eurovent Certified Performance energy label are given in the Certification Manual. A certified European Heat Pump can carry an energy efficiency label if it is available for its category and type in the related programme. It is not mandatory to use Eurovent Certified Performance energy labels however it is highly recommended to do so. If an energy label is used by the participant it is mandatory to use the right corresponding layout.

High resolution files of these labels, as well as specifications for the layout are available on the website in the manufacturer’s restricted area.

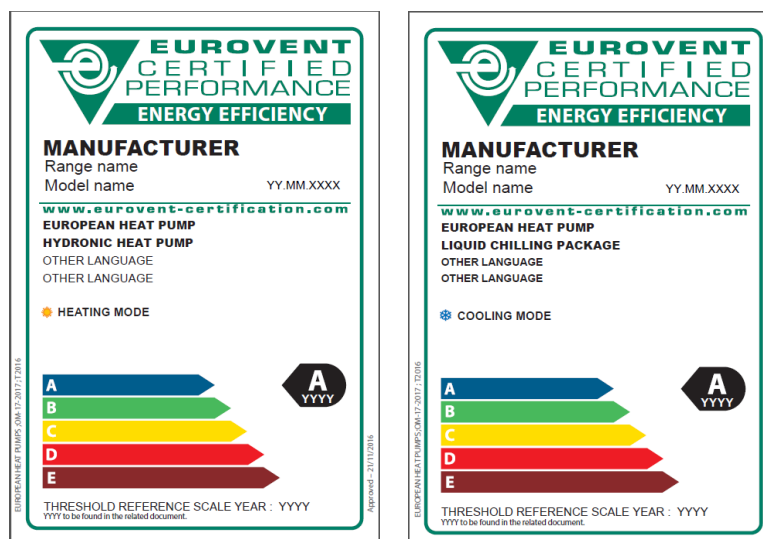


Figure 2: Illustration of the EuroHP Energy Efficiency Labels - Example: Related programme LCP-HP, Cooling and Heating mode