Heat Pump KEYMARK: Your only certification scheme for compliance in Europe
Welcome & introduction to EHPA

Danaé Kokkalis
Communication Officer (EHPA)
🤔 Where are you connecting from?
<table>
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Housekeeping rules

Ask your questions in the chat. Don’t forget to mention the name of the speaker you would like to address your question to.
Introduction to EHPA
Our vision

In a fully decarbonised Europe, heat pump technologies are the number one heating and cooling solution, and a core enabler for a renewable, sustainable and heat equity system.

Our mission

EHPA is a forward-thinking association aiming at putting heat pumps at the centre of the energy system by demonstrating the benefits of heat pumps, providing relevant information and being a reference point and interlocutor to all stakeholders.

Policy Department

EHPA is the voice of the heat pump sector in the European Union and advocates to make awareness and create a market awareness that facilitates a faster deployment of heat pumps, so that their benefits are a European asset. Policy work is naturally at the corestone of EHPA’s activities.

Heat Pump Keymark

The Heat Pump Keymark is a voluntary European certification mark (215 type I certification) for all heat pumps, condensing heat pumps, and heat water heaters. The scheme is reviewed by the European Committee of Standardization (CEN) and is executed by approved certification bodies across Europe.

Policy Toolbox

for members only

The website

EHHPA’s policy status of each major policy dossier

What’s currently high on the agenda?

A regular overview from CEN/CEI 416 on Keymark

Consolidate proposals on how to get involved

The Weekly Wrap-up

Find policy news every week!

The Weekly Policy Chat.

Catch up and chat with us every day at 10 am!

Our Projects

EHPA is actively involved in several European Funded projects. The most important of them are: EUPHEMIA, Interreg and Thermen programmes, with excellent projects able to apply for the annual Heat Pump Award.

- SunHorizon
  - Coupling solar PV with heat pump technology

- RHC Platform
  - Multifunctional and sustainable heating and cooling

- RENARDHeat
  - Integrating the district heating and cooling sector by developing new technologies and enabling the exploitation of surplus available and sustainable

- HP4ALL
  - Heat Pump ABS for Nissi connected

- Tender
  - Overview of Horizon and Horizon

- SuperHomes2050
  - Upgrading integrated deep renovation measures in the homes in Ireland

- Heat Pump Award
  - Where innovative heat pump technology is recognised

Learn more about our projects:

- Visit our website: ehpaper.org
- Find us on social media: ehpaper.org

Secretariat: heatpumpnetwork.com

These projects are financed by the European Union’s Horizon 2020 research and innovation programme under grant agreements No: 853297 (EUPHEMIA), No: 890104 (Thermen), No: 777525 (Interreg), No: 810752 (RENARDHeat), No: 101009004 (Tender), No: 871500 (SuperHomes2050), No: 871500 (Heat Pump Award).
## Agenda

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Introduction to HPK & certification process

Tarik Bellahcene
Head of Heat Pump KEYMARK Secretariat (EHPA)
Heat Pump KEYMARK

Your only Certification Scheme for Compliance in Europe

Tarik Bellahcene
Head of Heat Pump KEYMARK Secretariat
Webinar, October 2023
Agenda

- Introduction to KEYMARK
- KEYMARK for Heat Pumps - Certification : Key players & Data
- Heat Pumps KEYMARK - Certification Process - Scheme Recognition
- Heat Pumps KEYMARK - Database and Communication
- Heat Pumps KEYMARK - Benefits
Introduction to KEYMARK
Introduction to KEYMARK

- The KEYMARK is a voluntary European quality mark for products and services. It is owned by the European standardization organizations CEN and CENELEC.

- The KEYMARK quality mark is granted by following a certification process that demonstrates compliance with European Standards and Ecodesign requirements.

- The KEYMARK quality mark is issued by empowered certification bodies.
KEYMARK quality mark for various types of products

- As a rule, the KEYMARK can be issued for all products and services, that are subject to a European Standard (EN)

- KEYMARK quality mark cover various sectors such solar thermal products, thermal insulation materials, thermostatic radiator valves, ceramic tiles, heat pumps or fire extinguishers
KEYMARK for Heat Pumps
The scope of this KEYMARK scheme encompasses a large variety of heat pumps. This includes:

- Heat pump space heaters providing heat to water-based central heating systems for space heating purposes, with heating capacities up to 400 kW
- Heat pump combination heaters providing heat to water-based central heating systems for space heating purposes and heat to deliver DHW, with heating capacities up to 400 kW
- Heat pump water heaters, which are dedicated to providing DHW, with heating capacities up to 400 kW
- Air/air heat pumps up to 12 kW cooling capacity (or heating capacity for air/air heating only products)
KEYMARK quality mark for Heat pumps - Stakeholders

- The European KEYMARK Certification Scheme and rules for heat pumps were developed by:
  - Heat Pump Scheme Group (HPSG)
  - Heat Pump Steering Committee (HPSC)
  - Heat Pump KEYMARK Secretariat run by European Heat Pump Association (EHPA)

- Involving directly the following stakeholders and interested parties:
  - Manufacturers
  - Testing Laboratories
  - Certification Bodies
  - European Heat Pump Association

- With support and supervision of KEYMARK Management Organisation (KMO) on behalf of CEN
KEYMARK for Heat Pumps – Secretariat Role

KEYMARK RECOGNITION IN ALL MEMBER STATES

ESTABLISHED BRAND AWARENESS AND NEW PARTICIPATING BODIES

IMPROVED DATABASE EXPERIENCE AND IMPROVED INTERACTION WITH EHPA QL DB
KEYMARK for Heat pumps – Verified by a Third Party

- Certification Bodies are accredited for the relevant European standards on the basis of ISO/IEC 17065. CBs are empowered by the Keymark Management Organization (KMO).

- Laboratories having an ISO 17025 accreditation for one or more of the relevant standards and test methods as defined and used in HP KEYMARK and recognized by a certification body.
KEYMARK for Heat Pumps - Certification Decision

The KEYMARK quality mark for Heat Pumps remains a strong quality reference for the heat pumps industry.

The KEYMARK certification scheme is maintained by

HP KEYMARK Testing Laboratories 30
HP KEYMARK Certification Bodies 10
KEYMARK for Heat pumps - Certification Bodies

bre
TÜVRheinland®
ICIM
kiwa
RISE
STROJÍRENSKÝ ZKUŠEBNÍ ÚSTAV
VDE INSTITUT
CENTRALNY OŚRODEK CHŁODNICTWA
certif
Associação para a Certificação de Produtos
ehpa
KEYMARK for Heat pumps – Testing laboratories
KEYMARK for Heat Pumps - Certificates issued

The KEYMARK certification scheme is still fast growing

- HP KEYMARK Certificate Holders: 119*
- HP KEYMARK Certificates Issued: 1814*
- HP KEYMARK Certified Models: 7715*

* 45% increase in one year
KEYMARK for Heat Pumps - Steady growth

New certificates - 2016-2022

2016: 81
2017: 231
2018: 135
2019: 212
2020: 266
2021: 269
2022: 303

294 new certificates in first semester 2023
KEYMARK for Heat Pumps – Certification Bodies Repartition

- BRE 28%
- DIN CERTCO 34%
- RISE CERT 17%
- ICIM 9%
- Kiwa 4%
- VDE 1%
- SZU 7%
KEYMARK quality mark for Heat Pumps
Certification Process
Scheme Recognition
KEYMARK for Heat pumps - Certification process

1. Application: manufacturers or distributors contact one of the empowered certification bodies of their choice

2. Factory inspection and product sampling by an authorized inspector

3. Testing of the sampled units by an authorized testing institute chosen by the manufacturer among the ones recognized by the certification body

4. Conformity assessment of all the reports and documents by the certification body

5. Annual monitoring
The applicant declares the values of the heat pumps in the heat pump KEYMARK database and submit the entries to the certification body for the review.
KEYMARK Heat pumps – Extension of KEYMARK certificates (OBL)*

Heat Pump KEYMARK Scheme contains rules for extending HP-KEYMARK certificates to products sold under different brand or/and model name.

The knowledge and following of these rules by the involved parties (manufacturers, testing laboratories, inspection bodies and certification bodies CB) ensures a harmonised procedure

*OBL : Own Brand Labelling

For further details please refer to Heat Pump KEYMARK Scheme Rules (https://keymark.eu/en/products/heatpumps/documents)
KEYMARK for Heat Pumps - Scheme recognition at EU level

**EUROPEAN RECOGNITION**
A single certificate for a single EU market

**QUALITY OF PRODUCTS**
Third-party testing based test points from Ecodesign

**OPEN TO ALL INTERESTED PARTIES**
and mutually accepted by all participating certification bodies

**CONTINUOUS DEVELOPMENT OF THE SCHEME**
according to the industry needs and flexible approach

- **HP KEYMARK is fully recognised**
- **No certification is required**
- **HP KEYMARK recognised - EHPA Quality Label required**
- **HP KEYMARK recognition in progress**
KEYMARK quality mark for Heat Pumps
Database - Communication
Heat Pumps

A Single Certificate for a Single European Market

The Heat Pump KEYMARK is a voluntary, independent European certification mark (ISO type 5 certification) for all heat pumps, combination heat pumps and hot water heaters (as covered by Ecodesign, EU Regulation 1275/2013 and 814/2013).
# Heat Pump KEYMARK Certificates

## Certificate Holders

<table>
<thead>
<tr>
<th>Certificate Holders</th>
</tr>
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<tbody>
<tr>
<td>Advantix S.p.A.</td>
</tr>
<tr>
<td>AERMEC S.p.A.</td>
</tr>
<tr>
<td>Airwell Residential S.A.S.</td>
</tr>
<tr>
<td>ait-deutschland GmbH</td>
</tr>
<tr>
<td>Argeoclima S.p.A</td>
</tr>
<tr>
<td>Ariston Therma Group</td>
</tr>
<tr>
<td>August Brötje GmbH</td>
</tr>
<tr>
<td>BAXI Climatización S.L.U</td>
</tr>
<tr>
<td>BAXI Heating UK Limited</td>
</tr>
<tr>
<td>BAXI Potterton Mycon</td>
</tr>
<tr>
<td>BAXI S.p.A.</td>
</tr>
<tr>
<td>BDR THERMEA FR (BRÖTJE)</td>
</tr>
<tr>
<td>BDR Therma FR (CHAPPEE)</td>
</tr>
<tr>
<td>BDR Therma FR (DE DIETRICH)</td>
</tr>
<tr>
<td>BDR Therma FR (OERTLI)</td>
</tr>
<tr>
<td>BDR THERMEA FR (REMEHA)</td>
</tr>
<tr>
<td>Bosch Termotecologia S.A.</td>
</tr>
<tr>
<td>Bosch Thermotechnik GmbH</td>
</tr>
<tr>
<td>Bosch Thermotechnik GmbH (Buderus)</td>
</tr>
</tbody>
</table>
## Certificate holders

**ECOAIR 1-9 PRO**

<table>
<thead>
<tr>
<th>Certificate Holder</th>
<th>Ecoforest Geotermia S.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg. No.</td>
<td>011-WD0489</td>
</tr>
<tr>
<td>Certification Body</td>
<td>DIN CERTCO Gesellschaft für Konformitätsbewertung mbH</td>
</tr>
<tr>
<td>Subtype title</td>
<td>ecoAIR 1-9 PRO</td>
</tr>
<tr>
<td>Driving energy</td>
<td>Electricity</td>
</tr>
<tr>
<td>Heat Pump Type</td>
<td>Outdoor Air/Water</td>
</tr>
<tr>
<td>Refrigerant</td>
<td>R290</td>
</tr>
<tr>
<td>Mass of Refrigerant</td>
<td>0.850 kg</td>
</tr>
<tr>
<td>Certification Date</td>
<td>03.06.2021</td>
</tr>
<tr>
<td>Testing basis</td>
<td>HP KEYMARK certification scheme rules rev. 8</td>
</tr>
</tbody>
</table>

**Number of models**: 1

**MODELS**

- ecoAIR 1-9 PRO
## EN 14511-2

<table>
<thead>
<tr>
<th></th>
<th>Low temperature</th>
<th>Medium temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat output</td>
<td>4.20 kW</td>
<td>4.10 kW</td>
</tr>
<tr>
<td>Electric input</td>
<td>0.84 kW</td>
<td>1.30 kW</td>
</tr>
<tr>
<td>COP</td>
<td>4.98</td>
<td>3.15</td>
</tr>
</tbody>
</table>

## EN 14511-4

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shutting off the heat transfer medium flow</td>
<td>passed</td>
</tr>
<tr>
<td>Complete power supply failure</td>
<td>passed</td>
</tr>
<tr>
<td>Defrost test</td>
<td>passed</td>
</tr>
</tbody>
</table>

## EN 12102-1

<table>
<thead>
<tr>
<th></th>
<th>Low temperature</th>
<th>Medium temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound power level indoor</td>
<td>0 dB(A)</td>
<td>0 dB(A)</td>
</tr>
<tr>
<td>Sound power level outdoor</td>
<td>57 dB(A)</td>
<td>57 dB(A)</td>
</tr>
</tbody>
</table>

## EN 14825

<table>
<thead>
<tr>
<th></th>
<th>Low temperature</th>
<th>Medium temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>$n_s$</td>
<td>218 %</td>
<td>171 %</td>
</tr>
</tbody>
</table>
Heat Pump KEYMARK – Communication strategy

- Social media campaigns: LinkedIn & Twitter
- Events participation (Mostra, ISH, Chillventa, InterClima, HP Summit,...)
- Articles and press releases
- Member engagement
- Advertising campaigns
KEYMARK quality mark for Heat Pumps

Benefits
KEYMARK for Heat pumps – Benefits

- A Third-party certification aids the purchasing decision and gives the consumers confidence that they have bought a quality product

- The recognized KEYMARK quality mark can be used to have access to public subsidies in majority of the European countries

- The scheme is open to all interested parties and details of certificate holders and certified products are publicly visible
Any questions?
## Agenda

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Testing labs: always ready to take over the challenge

DI Ivan Malenković
Head of Team Test Lab Heat Pumps and Chillers (Fraunhofer Institute for Solar Energy Systems ISE)
Testing labs: always ready to take over the challenge

- Ivan Malenković
  EHPA HP Keymark Webinar
- October 10th, 2023
- www.ise.fraunhofer.de
Agenda

1. Requirements for an accredited laboratory within the HP Keymark scheme
2. What does it mean to be an accredited laboratory according to ISO 17025?
3. Testing heat pumps according to standards: multitude of possibilities
4. Examples of common challenges when testing a heat pump
Requirements for HP Keymark test labs

- Accreditation according to ISO/IEC 17025 for relevant standards
- Positive assessment of one or more empowered certification bodies and signed contracts between the laboratory and the body or bodies
- All recognised testing laboratories must actively participate in the HP Keymark Scheme Group and in relevant network meetings
- Upon request from the HP Keymark Steering Committee, a laboratory has to perform a round robin test with another recognised laboratory
- All requirements are stated in Annex H of the HP Keymark Regulation
Accreditation according to ISO/IEC 17025

- General requirements for the competence of testing and calibration laboratories
- Implemented and documented quality management system
- Clear processes following the relevant standards, with traceable changes
- Periodical audits dedicated to specific technical and organisational issues
- Document workflow system - including complaints - ensures traceability of all results and processes
HP Keymark: Scope of testing

- Steady-state heating/cooling capacity and COP/EER at standard rating conditions according to EN 14511, EN 15879-1 for E/W and EN 12309 and EN 16905 for GHP
- Steady state heating/cooling capacity and COP/EER at the bivalent point, and one more condition, according to EN 14825 and EN 12309 and EN 16905 for GHP
- Performance parameters for DHW according to EN 16147, EN 13203-5 for Hybrids, EN 14511 for CO₂ DHW heat pumps and EN 13203-6 for GHP
- Sound power level test according to EN 12102-1 and -2
- Operating tests according to EN 14511-4 (no requirement for GHP)
- NOₓ emissions according to an appropriate standard (GHP only)
## Heat pump standards

<table>
<thead>
<tr>
<th>Standard</th>
<th>No. pages</th>
<th>Versions</th>
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<tbody>
<tr>
<td>EN 14511 (Parts 1-4)</td>
<td>136</td>
<td>2007, 2013, 2018, 2022</td>
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<tr>
<td>EN 15879-1</td>
<td>28</td>
<td>2011</td>
</tr>
<tr>
<td>EN 14825</td>
<td>136</td>
<td>2013, 2016, 2022</td>
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<tr>
<td>EN 16147</td>
<td>50</td>
<td>2011, 2017, 2022</td>
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<tr>
<td>EN 12102 (Parts 1,2)</td>
<td>82</td>
<td>2013, 2017, 2019, 2022</td>
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<tr>
<td>EN 13203-5</td>
<td>40</td>
<td>2018, 2022</td>
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<tr>
<td>EN 12309 (Parts 1-7)</td>
<td>~500</td>
<td>2000, 2014, 2022</td>
</tr>
<tr>
<td>EN 13203-6</td>
<td>35</td>
<td>2018, 2022</td>
</tr>
<tr>
<td>EN 16905 (Parts 1-5)</td>
<td>268</td>
<td>2017, 2020, 2023</td>
</tr>
<tr>
<td>EN 16905 (Parts 1-5)</td>
<td>1275</td>
<td></td>
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Main performance test and evaluation procedures

- A large variety of product types and capacity control covered by standards
Products under test and test methods

- Controllers are getting ever more complex; special equipment, software and support from the manufacturer needed
- Different control strategies, some of which are not explicitly covered by the standards
- New technologies such as hybrid heat pumps
- New appliance configurations
- Standards are being updated / changed often
- New test methods under development
Capacity / COP Measurements

The charts illustrate the supply temperature, return temperature, and heating capacity over time. The tolerance band is marked with a red circle, indicating the range within which the heating capacity should operate.
Sound power measurements

- The sound power level of heat pumps is decreasing
- This can impose considerable challenge on testing facilities, especially regarding indoor units
- An increasing number of appliances is equipped with an indoor unit consisting only of a circulating pump, controls, valves and piping
Hybrid heat pumps

- Despite a joint control system, in some products an access to the boiler and/or heat pump controller is needed.
- The operation characteristics in bivalent temperature range is often influenced by a variety of parameters.
- Depending on the design and declared capacity, the heat pump might operate in on-off mode.
- Additional effort for installation, operation and evaluation.
A new “load-based” test procedure is currently being discussed.

Unlike current testing procedure, it does not exclude appliance’s own controls.

In order to establish comparability between test facilities, a building load needs to be specified.

A higher level of test stand automatisation is needed.
Ivan Malenković
Department Heating and Cooling Technologies
Tel. +49 761 4588 5533
ivan.malenkovic@ise.fraunhofer.de
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Mélanie Auvray
Policy Manager
(EHPA)
How is Heat Pump KEYMARK linked to Ecodesign and other EU regulations?
Ecodesign & Energy Label
What are Eco-design & Energy Labelling? The context

**Eco-design**

The EU legislation on Eco-design is an effective tool for improving the environmental performance of products by setting mandatory minimum standards for their energy efficiency.

This eliminates the least performing products from the market, significantly contributing to the EU’s energy and climate targets.

Ecodesign also supports industrial competitiveness and innovation by promoting better environmental performance of products throughout the internal market.

**Energy labelling**

With a comparative scale from A (most efficient) to G (least efficient) the EU energy label has been a key driver for helping consumers choose products which are more energy efficient. At the same time, it also encourages manufacturers to drive innovation by using more energy efficient technologies.

Consumers can find detailed information about energy labelled products and models in EPREL. It offers the possibility to identify which products have the best cost-efficiency ratio for a specific need.

* For heat pump space heaters (Regulation 811/2013) except low-temperature heat pumps, in seasonal space heating energy efficiency classes A++ to G

** Electric heat pump space heaters (draft delegated regulation 2023) thermally driven heat pump space heaters, hybrid space heaters
How does Ecodesign & Energy Labelling work?
Ecodesign Regulations & Heat Pumps

Lot 1

Lot 2

Lot 10
What kind of requirements?

**ECODESIGN**
- Minimum energy efficiency requirements
- Maximum sound power requirements
- Information requirements
- Material Efficiency requirements

**ENERGY LABELLING**
- Energy Label
- EPREL
‘CE’ marking & Declaration of conformity

The ‘CE’ marking: products placed on the market meet **high safety, health and environmental protection requirements**. (Including Ecodesign directive)

The manufacturers are responsible to:
- carry out the conformity assessment,
- set up the technical file,
- issue the EU declaration of conformity,
- affix the marking to the product.

The **EC declaration of conformity** shall contain:
- Name & address of the manufacturer,
- Description of the model,
- Reference of the harmonised standards,
- Other technical standards,
- Reference of other Community legislation providing CE mark,
- Identification and signature of the person
Conformity assessment & Heat Pumps

Lot 1 on space heaters (Regulation 813/2013)

- The conformity assessment procedure shall be the internal design control (Module A)

- The manufacturers establish the product fiche and verify that the products respect all requirements from the Regulation.

- Market surveillance authorities may verify that the product respect the requirements.
Ecodesign & Heat Pump Keymark

Independent 3rd Party Certification

- A voluntary certification mark that supports the quality and performance of heat pumps.

- The certification is based on independent third-party testing and is compliant with efficiency requirements as set by Ecodesign Lot 1, 2 and 10.

- The quality mark can be used for access to public subsidies in most European countries while creating trust in the marketplace.
Outlook – Ecodesign Review
Welcome

This website is dedicated to the follow-up of the review studies for Ecodesign and Labelling regulations for space and water heaters, that were finalised in June 2019.

The aim of this follow-up project is to provide technical support to the European Commission, providing inputs to Working Documents for the revision of the following regulations:


The project is carried out by VHK, for the European Commission, DG Energy. The project has started at the end of October 2019 and will be finalised by November 2021.

- “Study” presents the project structure, Working Groups topics and meeting schedule in more detail.
- “Documents” contains the latest documents available.
- “Mailing List” offers subscription to our mailing list so you can be informed on study updates.

What’s new?

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<th>Date</th>
<th>Subject</th>
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<tr>
<td>29 July 2021</td>
<td>Multiple stakeholders positions/opinions/comments for WG 1-2-3-4 available for download</td>
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<td>2 Mar, 16 Apr, 10 May 2021</td>
<td>Multiple stakeholders positions/opinions/comments for WG 1-2-3 available for download</td>
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Review of Lot 1 for space heaters

**DESIGN:** Specimen tested against requirements

- **Module A** – Internal control

**PRODUCTION:** Check production quality system

- **Module A** – Internal control

---

**TODAY**

- HEAT PUMP SPACE HEAT
- No 3rd party; Self-declaration

**PROPOSAL**

- HEAT PUMP SPACE HEAT
- 3rd party conformity assessment
- B + C/D/E (as fuel boiler and similar to GAR)

---

**Module B** – EU Type Examination

- Module C – Conformity to type
- Module D – Production quality assurance
- Module E – Product quality assurance
- Modules F, G, H strict verification (checks up to every product)

Draft proposal – still in discussion with the European Commission
Review of Lot 1 for space heaters

Part 1: Alternative TPCA module options

Taking account of testing costs and considering private certification is in general enough to increase trust in data:

- Module A2 (supervised testing) + accredited lab (independent or company)
- Limited number of test points (+ adapted conformity rules based on these tests), e.g. 2 instead of 5 or 7 would save 60% on testing costs
- Model random checking procedure, tests every X% of all models, X to be adjusted
- Timing: later mandatory introduction (2029?)
Keymark – key role in the fast roll out of heat pump

RePowerEU and cut our dependence on Russian gas

60 Millions additional hydronic heat pumps to be sold in Europe by 2030

*extrapolation includes air-air HP
EU Project: ComplianceServices

Objective 1: Increase awareness and understanding of the ecodesign and labelling regulations by suppliers, retailers and installers.

Objective 2: Provision of tools supporting the clarification of issues and questions concerning the legislation (e.g., guidelines and FAQs).

Objective 3: Provision of training tools and services supporting the capacity of suppliers, retailers and installers (e.g., including e-learning and webinars).

Objective 4: Promotion of use of EPREL for retailers and installers as well as further support of optimisation of EPREL.

Objective 5: Implementation of support and clarification channels with the EC to facilitate the treatment of clarification and interpretation issues.

Objective 6: Effective dissemination of the tools and services to all relevant stakeholders in the EU market in collaboration with the responsible associations.

Objective 7: Monitoring of the impact and optimisation of the facility services to provide the basis for a further extension to other product technologies in a later stage.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor CINEA can be held responsible for them.
EU Project: ComplianceServices
Concrete outcomes of the Project

A **web-portal** providing the hub for a **self-service platform and a help desk having the aim of** supporting clarification issues of stakeholders in collaboration with the EC.

The portal will have appropriate **sections for the hosting of tools and services** according to the different product groups and target groups.

Tools will include **guidelines, FAQs, fact sheets concerning EPREL** and related standards for product groups.

The focus of the work will be on key technologies of the current Eco-design and labelling working plan of the EC including **heating & cooling technologies, PV** and **selected white goods**.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor CINEA can be held responsible for them.
Thank you!

Mélanie Auvray
melanie.auvray@ehpa.org

@helloheatpumps

European Heat Pump Association

www.ehpa.org
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The voice of the manufacturer: Benefits and challenges of being certified

Laurent Bénédict
Regulatory Monitoring Manager (Groupe Atlantique)
The voice of the manufacturer

Benefits and challenges of being certified

October, The 10th

Laurent Bénédit, Regulatory Monitoring Manager at Groupe Atlantic
Groupe ATLANTIC in a nutshell

Facts and figures

Groupe ATLANTIC =

- european leader in HVAC sector
- industrial committed to the low-carbon transition

- 1968 : Creation in France (Vendée)
- 22 brands
- 3.2 billion € turnover in 2022
- 25 internal laboratories
- 31 factories (including 13 in France)
- 21 training centers (including 10 in France)
- 10 million products manufactured each year
- 13,000 employees worldwide (including 8400 in France)
- 1600 recruitments planned in 2023 (including 1000 in France)

- In 2022 :
  - 30% of turnover comes from the heat pump activity
  - 16,5% of turnover comes from the air/water heat pump activity

- For 2030, we aim 50% of turnover coming from the heat pump activity
Why Groupe ATLANTIC is a stakeholder in Heat Pump Keymark?

Why a certification for air/water HP?

- Guarantee the quality of our products
- Promote their performance
- European certification:
  - Prove that our products meet the precise criteria covered by Ecodesign Lot 1, so create trust in the market place
  - Open up new markets within Europe, as soon as the concerned Member State recognizes the european certification at national level
**Why Groupe ATLANTIC is a stakeholder in Heat Pump Keymark ?**

**Why Heat Pump Keymark (1/2) ?**

- Scope of the scheme fully in line with our market
- Aim = a single certificate for all European member states
- A single certificate focused on energy efficiency and sound power level available on-line for all interested parties
- Using test points from Ecodesign
Why Groupe ATLANTIC is a stakeholder in Heat Pump Keymark?

Why Heat Pump Keymark (2/2) ?

- Based on independent third party testing
- Certificates granted by independent Certification Bodies
- Mutually accepted by all participating Certification Bodies
- Factory production control (FPC) with physical visits
- HP Keymark scheme is owned by the CEN
- A balanced mode of governance
Which detailed content for the certification Heat Pump Keymark?

The basis = European Keymark Scheme rules for Heat Pumps

- **For space heating:**
  - Sound power level indoor/outdoor:
  - Space heating energy efficiency Etas:
  - Bivalent temperature Tbiv:
  - Operation limit temperature TOL:

- **Space heating test according to EN 14511-2:** calculation
- **Psb according to EN 14825:** calculation

- Create matrix performance of space heating HP by using certified data from HP Keymark certificates and by following national rules

- Validity for the certificate: 10 years
Which detailed content for the certification Heat Pump Keymark?

The basis = European Keymark Scheme rules for Heat Pumps

- **For water heating:**
  - Water heating energy efficiency Etawh: Design requirements

- Water heating test according to EN 16147: National EPBD calculation COP, Heating up time, Standby power input, Reference hot water

Create matrix performance of water heating HP by using certified data from HP Keymark certificates and by following national rules

<table>
<thead>
<tr>
<th>Certified data from HP Keymark Certificate</th>
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| IdCET : de la NF 16147 à la RT2012 et à la RE2020 |

<table>
<thead>
<tr>
<th>Informations sur le CET</th>
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<tbody>
<tr>
<td>N° d'etiquette</td>
</tr>
<tr>
<td>Valeur de la pompe</td>
</tr>
<tr>
<td>Température d'eau d'arrivée</td>
</tr>
<tr>
<td>Niveau de performance</td>
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<thead>
<tr>
<th>Résultats de calcul</th>
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<tbody>
<tr>
<td>Test d'eau</td>
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<tr>
<td>Test d'air</td>
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<td>Ratio</td>
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<tr>
<th>Calcul: Test d'efficacité en eau</th>
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<td>Certificat Keymark Heat Pump</td>
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</table>

Certified data for using in RE2020
Who is involved in Heat Pump Keymark within Groupe ATLANTIC?

R&D department – Production Plants
- Testing, Assessment and Certification
- As manufacturer, we have to maintain a product-related Factory Production Control (FPC) based on EN ISO 9001

Meetings of the Testing Laboratories and Inspectors Peer Group
- Participation as registered testing laboratory for Heat Pumps – Contact: Anne-Laure Simon
- Contract with Empowered Certification Body: RISE, SE

Prescription department
- HP Keymark certificates used for internal database BART

Marketing department
- HP Keymark certificates used for catalogue, brochure, fair exhibition, ...

Meetings of the HPSG

Meetings of the HPSC
How many HP Keymark certificates for Groupe ATLANTIC?

Currently:

**Groupe ATLANTIC**
- 163 subtypes including 5 certificates for Brine/Water and Water/Water HP and 158 certificates for Outdoor Air/Water HP
- 301 models

**GUILLOT INDUSTRIES SAS - Groupe ATLANTIC**
- 6 certificates for Outdoor Air/Water HP
- 6 models

**GROUP ATLANTIC ESPAÑA - SOLUCIONES CONFORT TÉRMICO S.A.**
- 5 certificates for Outdoor Air/Water HP
- 17 models

政权或少 10% of the total number of certificates in HP Keymark

Tomorrow:

Possible evolution towards hybrid heat pump certificates as hybrid heat pumps could become a new product category in Ecodesign Regulation
What is the next challenge for HP Keymark?

Recognition in all European countries

- Full recognition in Netherlands for space heating and domestic hot water
- Operating recognition in Austria and Switzerland
Thanks for your attention!
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Q & A session

Ask your questions in the chat.

Don’t forget to mention the name of the speaker you would like to address your question to.
Give us your feedback!

Heat Pump KEYMARK webinar
10.10.23 feedback form
Thank you

Contact info:
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tarik.bellahcene@ehpa.org

Danaé Kokkalis
Danae.kokkalis@ehpa.org