



EHPA Quality Label & Heat Pump KEYMARK: a singular complementarity

Common points and differences

24 October 2024





Danaé Kokkalis

Senior Communication Officer

European Heat Pump Association



POLL

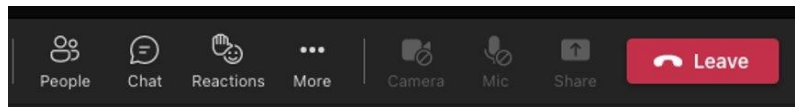


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Don't forget to mention the name of the speaker
you would like to address your question to.



Today's agenda



Time	Topic	Speaker
10:00 - 10:10	Welcome & introduction to EHPA	Danaé Kokkalis
10:10 - 10:25	Heat Pump KEYMARK and EHPA QL overview and process	Tarik Bellahcene
10:25 - 10:45	Common points and differences	Tarik Bellahcene
10:45 - 10:55	Break ☕	-
10:55 - 11:20	Performance data – how are the databases interconnected?	André Jacob
11:20 - 11:50	Q&A session	-
11:50 - 12:00	Closing	Danaé Kokkalis





Introduction to EHPA



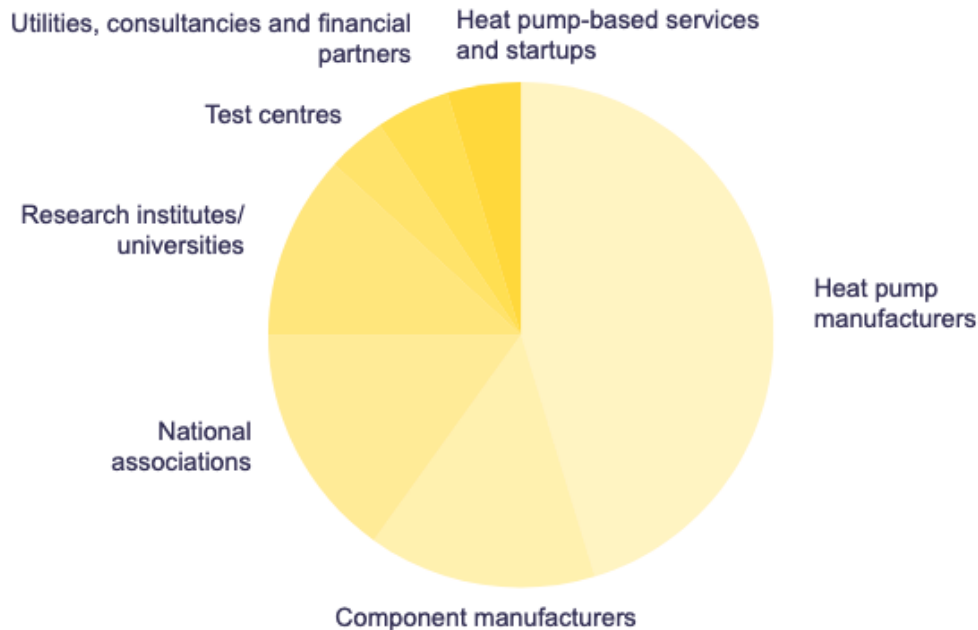
The European Heat Pump Association

Founded in 2000

227 members
representing the entire value chain

- Heat pump and component manufacturers
- National associations
- Testing laboratories
- Utilities, consultancies and financial partners
- Research institutes and universities
- Heat pump-based services and startups

33 countries



The European Heat Pump Association

Policy

EHPA is the voice of the sector in the European Union. It advocates to raise awareness around the technology and create a market environment that facilitates a faster deployment of heat pumps.

Projects

EHPA is actively involved in several European funded projects that are part of the H2020, Interreg and Tender programmes. Excellent projects are able to apply for the annual Heat Pump Award.

Comms & Events

The role of the communication team is to effectively translate the association's work into clear, engaging, and persuasive messages across both online platforms and in-person events.

Heat Pump KEYMARK and Quality Label

EHPA is coordinating the Heat Pump KEYMARK Secretariat. The association also manages the Quality Label programme.





What category describes you best?





Tarik Bellahcene

*Head of the Heat Pump KEYMARK
Secretariat*

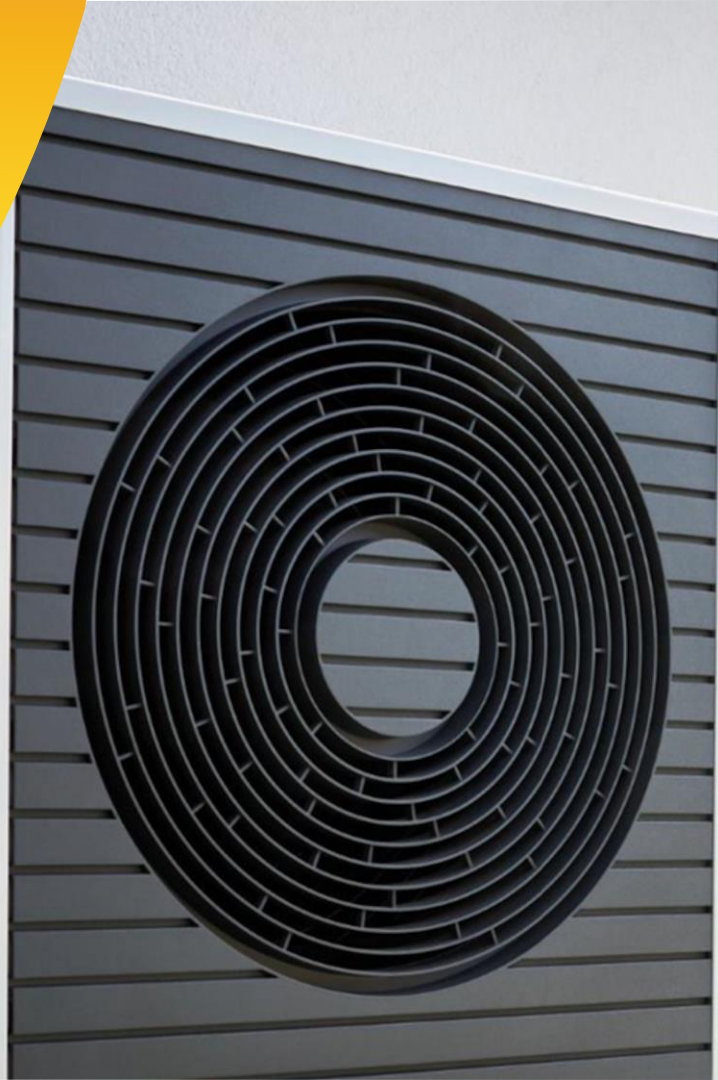
European Heat Pump Association





EHPA Quality Label & Heat Pump KEYMARK: a singular complementarity

Tarik Bellahcene
Head of Heat Pump KEYMARK Secretariat and EHPA Quality
Label
Brussels, October 2024





AGENDA

Introduction to Heat Pump KEYMARK (HPK) and EHPA Quality Label (QL)

HPK and QL - Process

HPK and QL - Recognition

HPK and QL - Benefits of the schemes and impact

Introduction to KEYMARK and EHPA Quality Label



- It is owned by the European standardization organizations CEN and CENELEC
- First version of HPK Rules is dated back to 2016
- The scheme is still active
- The scheme is a voluntary approach



- It is owned by European Heat Pump Association (EHPA AISBL)
- First version of EHPA QL is dated back to 1998
- The scheme is still active
- The scheme is a voluntary approach

Scheme structure - KEYMARK and EHPA Quality Label



The KEYMARK is based on a certification process that demonstrates compliance to Ecodesign and European Standards

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

KEYMARK quality mark cover sectors such solar thermal products, thermal insulation materials, thermostatic radiator valves, ceramic tiles, **heat pumps** or fire extinguishers



EHPA QL is based on a verification and validation process that demonstrates compliance to Ecodesign and European Standards

EHPA QL is dedicated exclusively to heat pumps

Additional requirements as requested at country level are discussed to be included in the EHPA QL

Governance - KEYMARK and EHPA Quality Label



HPK is developed and managed by:

- Heat Pump Scheme Group (HPSG)
- Heat Pump Steering Committee (HPSC)
- Heat Pump KEYMARK Secretariat run by European Heat Pump Association (EHPA)
- HPK is under coordination of the appointed secretariat and supervision of Keymark management organization (KMO) on behalf of CEN



EHPA QL is developed and managed by:

- A technical committee referred to as “Quality Label Committee” established by EHPA
- A National Quality Label Commission established in order to issue the Quality Label at a country level
- EHPA QL Secretariat run by European Heat Pump Association (EHPA)

Scheme type - KEYMARK and EHPA Quality Label



HPK is a third-party certification

- The certification is delivered by Certification Bodies (CBs) 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 recognized by a certification body
- Inspection entities having an ISO 17020 accreditation recognized by a certification body



QL is a verification scheme

- On country level, the Quality Label is delivered by respective EHPA QL National Commissions empowered by EHPA QL Committee.
- Laboratories having an ISO 17025 accreditation recognized by EHPA QL Committee

Scheme numbers - KEYMARK and EHPA Quality Label



HPK is a third-party certification

- The certification can be delivered by the 11 Certification Bodies (CBs)

And

- Products can be tested by the 29 Laboratories having an ISO 17025 accreditation and recognized by CBs
- ISO 17020 accredited inspection bodies recognised by CBs



QL is a verification and validation scheme

- On country level, the Quality Label is delivered by EHPA QL National Commission in Austria, Switzerland, Germany and Poland empowered by EHPA QL Committee.
- 14 Laboratories having an ISO 17025 accreditation recognized by EHPA QL Committee

Scope - KEYMARK and EHPA Quality Label



- 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), except single duct and double duct units.



QL applies to heat pumps for space heating with or without domestic hot water heating capability, with heat outputs up to 400 kW from air, geothermal or water sources.

Tests - KEYMARK and EHPA Quality Label



Depending on the heat pump type applications, the following tests are required according to EN Standards:

- Space heating tests
- Space cooling tests
- Hot Water tests
- Sound Power level tests
- Operating tests
- Product documents



Depending on the heat pump type applications, the following tests are required according to EN Standards:

- Space heating tests
- Hot Water tests
- Sound Power level tests
- Operating tests
- Product documents
- Customer Service

Certificates number - KEYMARK and EHPA Quality Label



Heat Pump KEYMARK (HPK) scheme counts:

- 2492 valid certificates
- 9574 models



EHPA QL (QL) scheme counts:

- 1601 valid certificates
- 9430 models

Process - KEYMARK and EHPA Quality Label



- Application: manufacturers or distributors contact one of the empowered certification bodies of their choice
- A factory inspection and product sampling will be conducted by an authorised inspector
- Testing of the sampled units by an authorised testing laboratory chosen by the manufacturer among the ones recognized by the certification body
- Conformity assessment of all the reports and documents by the certification body : Certification decision
- Annual monitoring
- 10 years certificate validity



- Application documents must be sent to the national Quality Label Commission
- The applicant grants the right of access to the test data to the Quality Label Commission
- The national Quality Label Commission reviews the documents to check for compliance with the regulations
- 12 years certificate validity (with 3-6-9 years intermediary checks)

Recognition and referencing - KEYMARK and EHPA Quality Label

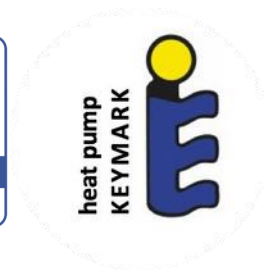


- Unique European scheme managed by CEN
- Recognised by EHPA QL
- Give direct access to UK market
- Give access to French market
- Give access to DACH countries via QL
- Referenced in Poland for ZUM list



- A must have for DACH countries
- Referenced in Poland for ZUM list
- Recognised in Czech Republic
- High potential scheme to be referenced in other countries for new subsidy schemes to be implemented

Certification benefits both users and businesses



Benefits to Users

- Most importantly, the products and services are safer, true to their advertised claims, and consistently reliable and high-quality
- Easier for end user to compare and contrast products and services
- Indirectly, enhanced competition among products and services which may result in lower prices (for a given quality) and a greater variety of products

Benefits to Businesses

- Higher levels of regulatory compliance and most of all reducing risks
- Businesses may achieve medium-and long-term cost savings through reliance on independent third-party conformity assessment services (despite the upfront cost generated)
- Enabling market entry



Why are you seeking a certification?





André Jacob

Head of Technology

Bundesverband Wärmepumpe
(German Heat Pump Association)





Heat Pump KEYMARK and EHPA Quality Label

A Database Comparison

André Jacob
Brussels, October 2024



Database Comparison

	Quality Label (QLDB)	HP KEYMARK (HPKDB)
Application	✓	x
Test sample selection	x	x
Data provision by applicant	✓	✓
Document provision	✓	x
Certificate / label generation	✓	x
Data report	x	✓
Advanced search	x	✓
Non-average climate data	x	✓



Database Comparison

- **Application**
 - QL: Applicants file and submit their application through the database.
 - HPK: Applicants reach out to CBs outside the database prior to adding a new subtype to the database.
- **Test sample selection**
 - QL and HPK: The details of model testing are handled outside the database.
- **Model data provision**
 - QL and HPK: The model data is entered into the databases by the applicants. However, the data asked for is different.
 - Data can be imported to the QLDB directly from the HPKDB. Changes to the HPK subtypes are notified to the QLDB and national secretariats.
- **Document provision**
 - QL: All documentation with relation to the application is uploaded to the database.
 - HPK: Information on the to-be-certified models is provided outside the base.

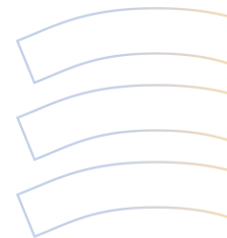


Database Comparison: Data Requirements

HPK database

- for space-heating:
 - EN 14511
 - EN 14825 for selected climate zones
 - EN 12102-1
 - EN 14825 for cooling
 - low-temperature and medium-temperature
- for domestic hot water:
 - EN 16147 for selected climate zones
 - EN 12102-2

QL database



Heat Pump Keymark certification steps



- Apply for Heat Pump Keymark by reaching out to CB



- Create subtype and models, and provide model data



- Provide documents needed for certification



- Obtain HPK certificate



Outside database



Within database



Heat Pump Keymark certification steps

Create subtype and models, and provide model data: Create subtype

New Subtype

Applicant	<input type="text" value="European Heat Pumps"/>
Certification Body	<input type="text" value="European Heat Pump Association (EHPA)"/>
Title	<input type="text" value="European Subtype"/>
Driving energy	<input checked="" type="radio"/> Electricity <input type="radio"/> Gas <input type="radio"/> Hybrid
Refrigerant	<input type="text" value="R290"/>
Mass of Refrigerant	<input type="text" value="3.47"/>
Heat Pump Type	<input checked="" type="radio"/> Outdoor Air/Water <input type="radio"/> Brine/Water
<input type="button" value="Create new"/>	



<input type="button" value="Add model"/> <input type="button" value="Import model CSV"/> <input type="button" value="Check for inconsistencies"/> <input type="button" value="Delete"/>	
SUBTYPE	
<hr/>	
Applicant	European Heat Pumps
Registration number	n/a
Certification Body	European Heat Pump Association (EHPA)
Subtype title	European Subtype
Driving energy	Electricity
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	3,470 kg
Status	Data Entry
Phase-out Date	n/a
<hr/>	
GENERAL DATA	
<hr/>	
Refrigerant	R290
Mass of Refrigerant	3,470 kg
GWP according to EU Nr. 517/2014	69.4 CO _{2eq} in kg
<hr/>	
<input type="button" value="Edit"/>	
MODELS	
<input type="button" value="Add model"/>	
When data input is finished, please submit data to the certification body for approval.	
<input type="button" value="Send for approval"/>	

Heat Pump Keymark certification steps

Create subtype and models, and provide model data: Entering data

Title

Internal Id

Application

- ☐ Heating (low temp)
- ☒ Heating (medium temp)
- ☐ Heating + DHW
- ☐ Heating + DHW + low temp

Units

- ☐ Indoor
- ☒ Outdoor

Cooling mode application (optional)

- ☐ +7°C/12°C
- ☐ +18°C/+23°C

Climate Zone

- ☐ Colder Climate
- ☐ Warmer Climate

Climate zone (for heating)

- ☒ Colder
- ☒ Warmer

Reversibility

- ☒ Yes
- ☐ No



Heating

EN 14511-2

Heat output
El input
COP

Low temperature

n/a
n/a
n/a



Heating

EN 14511-2

Heat output
El input
COP

Low temperature

4.20 kW
1.30 kW
3.23

Heat Pump Keymark certification steps

Create subtype and models, and provide model data: Add model and data in one step

Import

Browse... No file selected.

Import Csv

Cancel

How to place data correctly in the import files

English

Dashboard

New Subtype

Instructions

Import Manual

The manual describes the CSV file to import model data



Heat Pump Keymark certification steps

Beware of the consistency checks

MODELS

European Model 1

Model contains inconsistent data.

Show

European Model 2

Model contains inconsistent data.

Show

Sending for approval is disallowed!

Click on Show to learn more about the inconsistencies

Inconsistent data detected for COP according to in Heating under the Low temperature regime.



Inconsistent data detected for COP according to in Heating under the Medium temperature regime.

Inconsistent data detected for Supplementary Heater: PSUP according to EN 14825 in Average Climate under the Low temperature regime.
Value is required to be between 5.34 kW and 6.26 kW \pm 8.0%.



Quality Label application steps



-  Outside database
-  Within database



Quality Label application steps

Create application

Applicant Dashboard

[File a New Application](#) [Label Overview](#) [Show Account](#) [Manage Distributors](#) ▼

- ☒ Show Entries
- ☒ Show Submitted to Secretariat
- ☒ Show Submitted to National Commission
- ☐ Show Labeled
- ☒ Show Returned for Rework

▼

Application	Status	Application Type	Distributor	Creation Date
No matching records found				

Quality Label application steps

Create application

File a New Application

General Information	
Application Type	Initial Application ?
Distributor	European Heat Pumps (Belgium)
Heat Pump Type	Air-to-Water
Apply for Quality Label in	Deutschland (Germany) ?
Test Type	HP KEYMARK

Billing Address	
Billing Address	Please select
Order Number	

Save

Cancel



Quality Label application steps

Create application

Application	Status	Application Type	Distributor	Creation Date	
DE-20241014-001	Entry ?	Initial Application	European Heat Pumps	14.10.2024	

Application: DE-20241014-001

[Submit Application](#) [Delete Application](#) [Back](#)

Application Type

Initial Application

Distributor

European Heat Pumps (Belgium)

Status

Entry

Heat Pump Type

Air-to-Water

National Commission

Nationale Gütesiegelkommission Deutschland c/o BWP

[National Informational page on the Quality Label](#) [↗](#)

Errors

No model provided

[Application](#)

No document provided

[Application](#)

Quality Label application steps

Provide model data

Add Certificate Reference

Certificate References

Export Model Data Import Model Data

Models

Add Document

Documents



Quality Label application steps

Provide model data

Application: DE-20241014-001

Registration Number

011-1W0590

Search

Manufacturer

Please select

Certificate

Please select

Save

Back



Add Certificate Reference

Certificate References

011-1W0590

Import Models

Remove



Quality Label application steps

Import models and amend data using export and import functions

Application: DE-20241014-001

Import Models

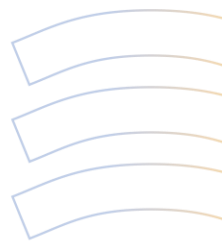
Select all Deselect all

- ☐ Vitocal 150-A AWO-M-E-AC 151.A04
- ☐ Vitocal 150-A AWO-M-E-AC 151.A04 SP
- ☐ Vitocal 150-A AWO-M-E-AC 151.A06
- ☐ Vitocal 150-A AWO-M-E-AC 151.A06 SP
- ☐ Vitocal 150-A AWO-M-E-AC 151.A08

Import Back



Export Model Data	Import Model Data
Models	
Vitocal 150-A AWO-M-E-AC 151.A04	<button>Copy</button> <button>Edit</button> <button>Remove</button>
Vitocal 150-A AWO-M-E-AC 151.A04 SP	<button>Copy</button> <button>Edit</button> <button>Remove</button>
Vitocal 150-A AWO-M-E-AC 151.A06	<button>Copy</button> <button>Edit</button> <button>Remove</button>
Vitocal 150-A AWO-M-E-AC 151.A06 SP	<button>Copy</button> <button>Edit</button> <button>Remove</button>
Vitocal 150-A AWO-M-E-AC 151.A08	<button>Copy</button> <button>Edit</button> <button>Remove</button>
Vitocal 150-A AWO-M-E-AC 151.A08 SP	<button>Copy</button> <button>Edit</button> <button>Remove</button>



Quality Label application steps

Additionally required data for QL

- Besides performance data, QL asks for data on main components
- Non-HP Keymark data needs to be entered by the applicant
- Data checks are performed by national commissions during the application process

Provide documents

File

Document Types

Models

Save Document Back

Browse... No file selected.

- ☐ Installation manual
- ☐ Owner's manual
- ☐ Refrigerant circuit diagram
- ☐ Test report
- ☐ Miscellaneous
- ☐ Technical Datasheet
- ☐ Customer Service Document

Select all Deselect all

- ☐ Vitocal 150-A AWO-M-E-AC 151.A04
- ☐ Vitocal 150-A AWO-M-E-AC 151.A04 SP
- ☐ Vitocal 150-A AWO-M-E-AC 151.A06
- ☐ Vitocal 150-A AWO-M-E-AC 151.A06 SP
- ☐ Vitocal 150-A AWO-M-E-AC 151.A08
- ☐ Vitocal 150-A AWO-M-E-AC 151.A08 SP



POLL



In three words, what is your main takeaway from this webinar?





Q & A

You can ask your questions in the chat.

Don't forget to mention the name of the person you are addressing your question to.





POLL



What specific topics would you like us to cover in the future?



Keep up with the latest updates!



www.heatpump.keymark.eu



Heat Pump KEYMARK



@hpkeymark

Get in touch!



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danae.kokkalis@ehpa.org

Thank you!

