

THE NEED FOR QUALITY PRODUCTS

WHAT DETERMINES HEAT PUMP QUALITY AND HOW CAN IT BE ASSURED

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The Heat Pump in Europe and the Czech Republic

What determines the Quality of heat pumps

The quality of the heat pump depends on the performance of:

- ✓ **The product**
- ✓ **The installation**
- ✓ **The maintenance**



How can quality be assured on the product?

By ensuring:

- ✓ **high efficient**
- ✓ **high quality**
- ✓ **reliability**

With a Quality Label for heat pumps



Strong need for a Quality Label:

When the Quality Label:

Contribute to the idea of a single European market

Is a complete scheme for a quality assurance on the products

Give different parties guidance for a strong growth market:

- ✓ end customer
- ✓ industry
- ✓ policy makers

Remove trade barriers

Increase developments and markets



EHPA European quality label for heat pumps

The EHPA and its member associations aim at creating a truly European label that is mutually accepted in all Member States. The coverage of the label has successfully been extended to additional countries. In 2011 it is available in Austria, Belgium, the Czech Republic, Germany, Finland, France, Slovakia, Switzerland, Sweden and the UK.

The label is granted to individual heat pumps or model ranges that are sold as standardized, serial products.

The label is granted to heating-only mode.



validity check at: www.ehpa.org/QL

Organization - EHPA Quality Label

The EHPA quality label is coordinated by the associations “*quality label committee*”. This committee is responsible for all aspects of the quality label. It ensures a joint approach across Europe, maintains communication with all partners and develops the rules, regulations and requirements further. It also maintains the Quality label database which makes all test results of heat pumps carrying the label available only.

The quality label committee consists of members of the *national quality label commission* (one representative from each country) and representatives of the *test centres* (one representative per country). Within the quality label committee is as well a test center working group created.

EHPA quality label: status-quo

National label with a common set of requirements throughout Europe

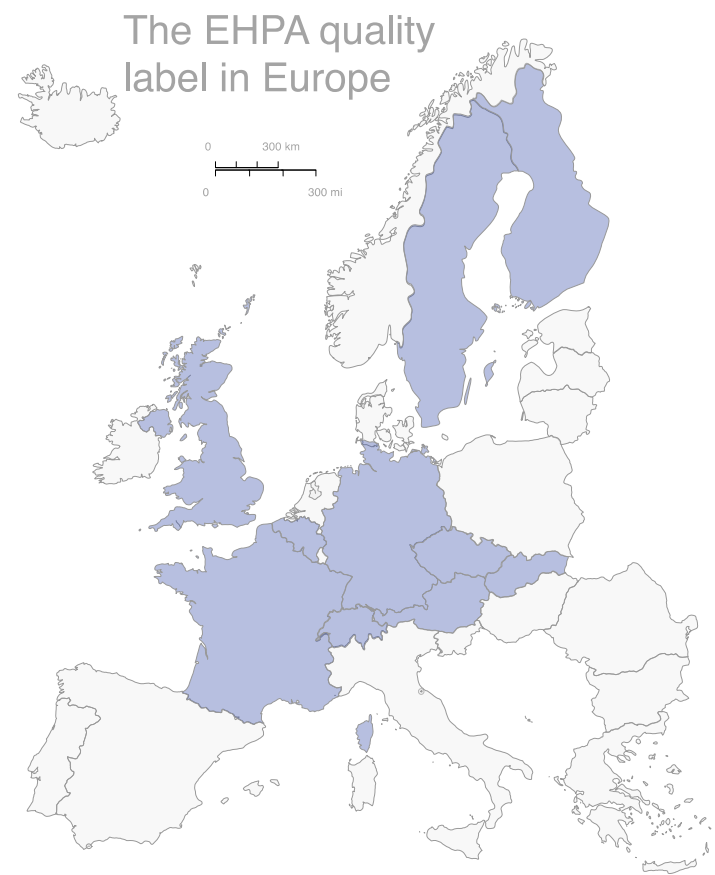
Available: AT, BE, CH, CZ, DE, FI, FR, SE, SK and the UK

Planned: the rest of Europe

Coordination via EHPA:

Maintenance of regulation database

Execution of certification via national commissions in different countries

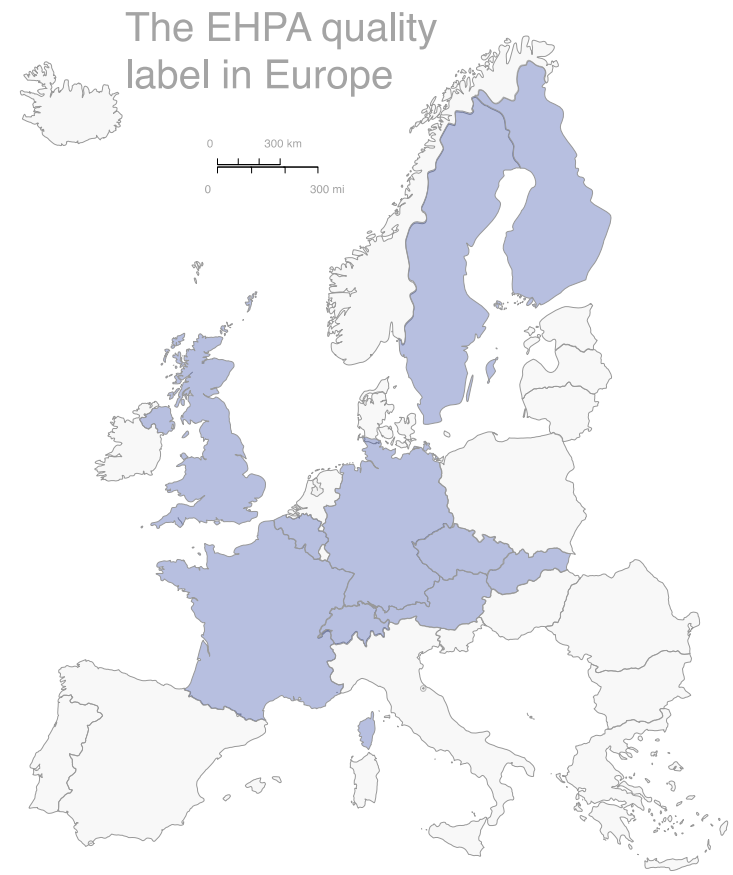


EHPA quality label for heat pumps - testing

Mandatory independent third party testing

Based on measurements according accreditation ISO 17025 and relevant methods in following test centers

- AIT, Austria | SP, Sweden | NTB, Switzerland | TÜV Süd, Germany | U Stuttgart, Germany | TÜV Rheinland, Germany | ILK, Germany | BSRIA, UK | CETIAT, France
- Pending: Others



Key requirements (list not exhaustive):

Conformity and compliance of all main components with the applicable rules and regulations (CE marking)

Requirements of minimum efficiency values (COP values)

Declaration of sound power level

Existence of sales & distribution, planning, service and operating documents in the local language of the country where the heat pump is distributed

Existence of a functioning customer service network in the sales area that allows for a 24h reaction time to consumer complaints

A two year full warranty which shall include a declaration stating that the heat pump spare parts inventory will be available for at least ten years.

Validity of labels: All labels are valid for three years.

Scope of testing

Test regulations for:

- ✓ Air/Water
- ✓ Brine/Water and Water/Water
- ✓ Direct exchange ground coupled/water heat pumps

HPs up to 100 kW

- ✓ certified heating mode only
- ✓ capacity and COP rating
- ✓ acoustic performance

Under development air-to-air heat pumps, domestic hot water heat pumps and capacity controlled units.

Test requirements based on existing standards

Changes in effect 01.01.2011

COP values:

- equal to those from Ecolabel
- 15 % Bonus for refrigerants with a GWP < 150

NEW VALUES

– A/A		2.9 (new)
– A/W	3.0	3.1
– B/W	4.0	4.3
– W/W	4.5	5.1
– DX/W	4.0	4.3



Validity of existing labels:

All labels that were granted before 1.1.2011 are valid for three years with the old conditions. All renewals from 1.1.2011 onwards will have to fulfil the new COP values.

Model Range approach and selection of unit/s to be tested

Definition of model range approach

characterised by uniform main components (refrigerant circuit, compressor, evaporator fan, heat exchangers, expansion valve, refrigerant, heat source and heat sink, hot water storage tank)

Definition of application approach

(apply with nat. commission, they pick the unit/s within the model range to be tested)

1. Manufacturer provides technical and performance data of its model range.
2. National Commission select model(s) to be tested.
3. Selection based on the model range evaluation



Communication

Requirements for participation available online: www.ehpa.org/QL

Rules and regulations

- Online publication of EHPA quality labelled heat pumps
- Documentation of refrigerant used and GWP on the label

Database

- Database active with all tested units (www.ehpa.org/QL)
- Multilingual database
- Communication package under preparation

Database and Data content

Certified heatpumps are listed in a Database on the EHPA homepage

All distributor data

(Address, web, contact)

All certificate data

(certifier, valid until, re-certified, country coverage), visual representation of certificate

Extensive model data

- General description, picture
- Efficiency and capacity at test points



The screenshot shows the EHPA database interface. At the top, there is a navigation bar with the EHPA logo and the text "european heat pump association". Below the logo, there are links for Home, Contact, Disclaimer, Sitemap, and Imprint. A search bar is located on the left side of the page, with a "Go" button. The main content area displays search filters for Manufacturer, Type, and Country, each with a "show all" option. Below the filters, it indicates "Displaying results 1 to 25 out of 325". A table lists the results, with columns for Manufacturer, Model, Type, and Technical Data. The table contains 10 rows of data, all from Alpha-InnoTec GmbH, listing various heat pump models and their types (Air/Water, Brine/Water).

Manufacturer	Model	Type	Technical Data
Alpha-InnoTec GmbH	LW 150H-I, LW 320H-I, LW 150H-A, LW 320H-A, Marke Siemens LI 15H, LI 32H, LA 15H, LA 32H	Air/Water	
Alpha-InnoTec GmbH	LW150A, LW190A, LW150, LW190, Marke Siemens LA 15, LI 15, LA 19, LI 19	Air/Water	
Alpha-InnoTec GmbH	LW70A, LW80A, LW100A, LW120A, LW100, LW120, Marke Siemens LI 10, LI 12, LA 7, LA 8, LA 10, LA 12	Air/Water	
Alpha-InnoTec GmbH	LWC 100, LWC 120 Marke Siemens LIC 10, LIC 12	Air/Water	
Alpha-InnoTec GmbH	LWC 60, LWC 80 Marke Siemens LIC 6, LIC 8	Air/Water	
Alpha-InnoTec GmbH	Siemens SIC 6H/K, SIC 7H/K, SIC 8H/K, SIC 10H/K, SIC 12H/K, SIC 14H/K, SIC 17H/K, SIC 23/K	Brine/Water	
Alpha-InnoTec GmbH	SWC 330, Siemens SIC 33	Brine/Water	
Alpha-InnoTec GmbH	SWC 60H/K, SWC 70H/K, SWC 80H/K, SWC 100H/K, SWC 120H/K, SWC 140H/K, SWC 170H/K, SWC 230/K	Brine/Water	
Alpha-InnoTec GmbH	WZS 60H(K), WZS 80H(K), WZS 100H(K) Marke Siemens: WS 60H(K), WS 80H(K), WS 100H(K)	Brine/Water	
Alpha-InnoTec GmbH	LW 71A, LW 81A, LW 101A, LW 121A, LW 140A, LW 180A, LW 251A, LW 310A	Air/Water	

The EHPA Quality label

Provides buying security and improved long term benefits to the customer.

Provides strong arguments for all parties seeking governmental support – institutional as well as financial.

Supports the current image of heat pumps as energy efficient, reliable, high quality products.

Contributes to establish heat pumps as innovative technology that “supplies” renewable and environmentally friendly ambient heat.

Helps to protect the existing heat pump markets against low-quality, low price competition.

Thanks for your attention, questions?

For more information, contact the quality label committee and check the website:

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www.ehpa.org/QL



The European Heat Pump Association

EHPA was established in the year 2000 to promote awareness and proper deployment of heat pump technology in the European market place for residential, commercial and industrial applications. EHPA aims to provide technical and economic input to European, national and local authorities in legislative, regulatory and energy efficiency matters. All activities are aimed at overcoming market barriers and dissemination of information in order to speed up market development of heat pumps for heating, cooling and hot water production.

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