

The EHPA Quality Label for Heat Pumps (EHPA-Q)



The EHPA Quality label for heat pumps aims at implementing a quality assurance system for heat pump units across Europe. Key element of the label is a third party testing process based on the guidelines of the European Heat Pump Association (EHPA) and executed according to the test requirements of the European Norms EN 14511 parts 1 to 4 (unit performance for heating), EN 16147 (sanitary hot water) and EN 1202 (sound).

Today's EHPA quality label has its origins in the D-A-CH quality seal inaugurated in 1996 by the heat pump associations of Germany, Austria and Switzerland to create a common set of requirements to ensure product and service quality for heat pumps. Since 2007 the label was gradually transferred to the European Heat Pump Association (EHPA). Due to the enlargement by additional countries (Sweden, Finland) and new regulations, the D-A-CH acronym was phased out in 2009 in favour of the new EHPA European Quality label for heat pumps (EHPA-Q).

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 2012 it is available in Austria, Belgium, the Czech Republic, Finland, France, Germany, Slovakia, Spain, Sweden, Switzerland and the UK.

The EHPA-Q label is granted to individual heat pumps or model ranges that are sold as standardized, serial products. They must be electrically driven with a heat output of up to 100 kW using all ambient energy sources (air, water, ground/geothermal). The label is granted to heating-only and to combi-units.

Requirements

In order to qualify for the EHPA Quality label, a heat pump must comply with the following criteria laid down in the rules and regulations of the quality label and further defined in the process descriptions for testing for the individual energy sources.

The key requirements are (list not exhaustive):

- a) Conformity and compliance of all main components with the applicable rules and regulations (CE-marking)
- b) Minimum efficiency values determined by third party measurements (operating points - COP):

Brine/Water:	Bo/W35	4,3
Water/Water:	W10/W35	5,0
Air/Water:	A2/W35	3,1
Direct exchange ground coupled to water:	E4/W35	4,3

c) Declaration of sound power level.

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



Fig. 1: The EHPA quality label

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

f) 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.

Organization and application procedure

The EHPA quality label is coordinated by the associations "Quality Label Committee". This Committee meets three times per year and 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 require-

ments further. It also maintains the Quality label database which makes test results of labelled heat pumps 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).

On a country level, the label is implemented by national Quality Label Commissions consisting of representatives from the local market (manufacturers, research institutes, test centres, associations). These commissions organize the application procedure and check that all requirements are met. They also maintain the list of heat pumps certified with the label.

The third party test of the heat pump unit or model range is executed by test centres that have to fulfil certain requirements in order to participate in the program. Most importantly, they have to be accredited according to EN 17 025 for the testing of heat pumps. In addition, they must be independent. All test centres from one country are eligible to send one representative to the EHPA Committee. Currently accepted partners are AIT, Austria; BSRIA, UK; CEIS, Spain; CETIAT, France, ILK, Germany; NTB, Switzerland, University of Stuttgart, Germany, SP, Sweden; TÜV Rheinland, Germany; TÜV Süd, Germany; VDE, Germany). A Technical Working group under the frame of the Quality Label Committee is specifically working on the test procedures within the test centres.

The application for the EHPA-Q Label shall be submitted to the national quality label commission. Those interested in using the label should contact the chairpersons of the national Commissions directly. A full list can be found at www.ehpa.org/ehpa-quality-label/registered-test-centres. The applicant must provide all the necessary documents including proof of a passed third party test showing that its heat pump fulfils the requirements of the label. Once these documents are positively checked by the national quality label commission the label is granted and the heat pump is included in the official list. Each label is valid for three years and can be renewed two times.

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Next steps

For the near future EHPA aims at developing a test regulation for Air/Air units and to update the current regulation to include heat pump units with a capacity > 100 kW, heat pumps equipped with capacity modulating compressors and heat pumps for hot water production (new EN 16147). In the medium term integration of CO₂-heat pump water heaters, absorption Heat Pumps and hybrid systems is planned.

In relation to the current policy context, the Quality Label Committee has acknowledged the need to update the application procedure to ensure that it is automatically valid in all European countries. In the future, the requirements should be based on the primary energy efficiency including seasonal impact (SCOP based on EN 14825, weighted with the EU average primary energy factor; currently $2,28 \text{ kW}_{\text{th}}/\text{kW}_{\text{el}}$).

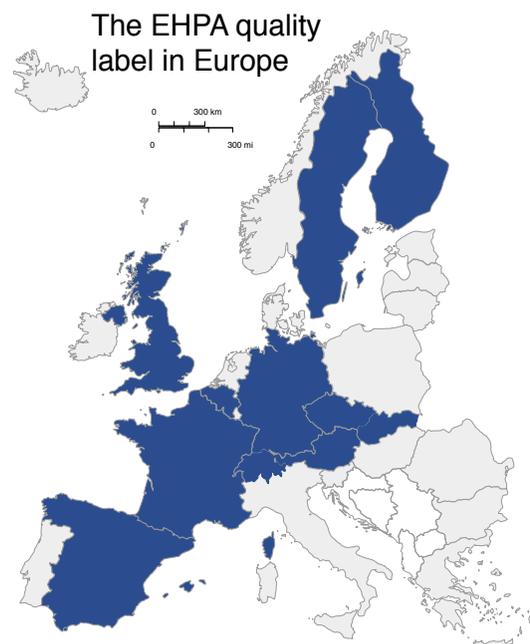


Fig. 2: Countries participating in the EHPA quality label scheme

For more information, you can contact the project coordinator, Pieter-Jan Cluyse <pieterjan.cluyse@ehpa.org> or Chair of the Quality Label Committee, Ulla Lindberg <ulla.lindberg@sp.se>

More information can be found on:
www.ehpa.org/ehpa-quality-label/
Quality label database: www.ehpa.org/ql/qldb