

EHPA regulations for granting the international quality label for electrically driven heat pumps

ADDENDUM – TWIN MODEL RANGES



Release 15.05.2014

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1. General

This amendment specifies the rules for granting the EHPA Quality Label (QL) to a twin model range, based on a single model range of heat pumps.

The amendment applies to water- or brine-source heat pumps for space heating applications.

2. Definition of a twin model range

A twin model range (Y series) is defined as a range of heat pumps which each model is an assembly of two identical single heat pump models of the same model range (X series).

The difference between the X and Y series is that the modules in the Y series include two identical heat pump units built on top of each other in one casing, as shown in Figure 1, or beside each other in one casing. This also means that the Y series will be staged capacity controlled.

Example: a model range (X series) consists of individual heat pump models A, B, C and D.

The twin model range (Y series) will consist of heat pump models 2*A, 2*B, 2*C and 2*D.

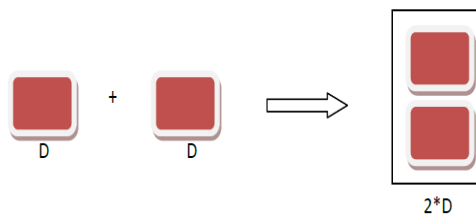


Figure 1: 2*D model of the Y series is made of 2 individual D heat pump models from the X series

The water (brine) connection circuits and the electrical supply connection of the twin models shall be made according to Annex 1.

All heat pump models within a twin model range shall have a heating capacity below or equal to 100 kW that defines the capacity limit of the scope of the QL.

3. Testing requirements for labelling the twin model range

If the QL application only concerns the twin model range of heat pumps (Y series) while the single model range (X series) is not labelled then the Y series shall fulfil all requirements according to QL testing regulations.

If the single model range (X series) is already labelled then the following additional tests shall be performed on the twin model range (Y series) for granting the QL.

3.1. Number of models to be tested

The number of models to be selected for testing within the twin model range shall be defined accordingly with the QL general rules.

3.2. Performance tests

A unique performance test shall be performed on each selected twin model range unit. This test shall be chosen among the test conditions specified in the QL testing regulation by the National Commission and in accordance with the operating range declared by the manufacturer.

As the twin model range heat pumps are staged capacity units, a 50% part load test is also mandatory.

3.3. Sound power level measurements

The sound power measurement shall be performed as specified in the QL testing regulation.

3.4. Operating range and safety tests

The manufacturer shall declare that the construction, operation and behaviour of the twin model range (Y series) are identical to the single model range (X series).

No additional test is required on the twin model range heat pumps.

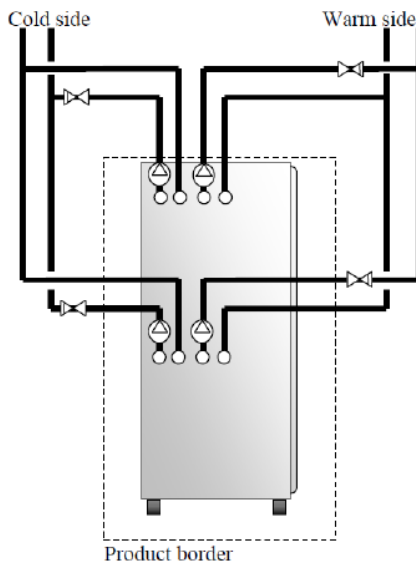
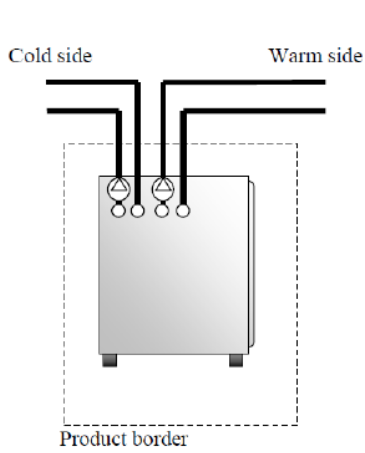
4. Fulfilment of QL requirements

If the measured COP values on the twin model range selected heat pumps are within $\pm 5\%$ of the COP values of the single model range (X series), the QL label can be granted.

If the measured COP values on the twin model range selected heat pumps are not within $\pm 5\%$ of the COP values of the single model range (X series), then all tests according to the QL testing regulation shall be performed on the selected twin model range heat pumps (Y series).

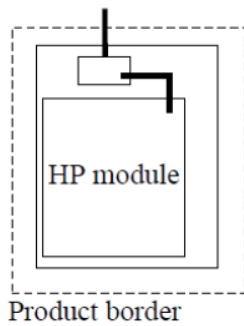
Annex 1 – Schematic view of the twin model heat pump connections

Water and brine connections



Electric power supply

400V 3N ~ 50Hz



400V 3N ~ 50Hz

