

Thermodynamic Collectors

Solar collectors directly integrated in the solar collector loop as part of a solar thermal system with a heat pump (thermodynamic system) are in the scope of EN 12975-1 and EN ISO 9806 and can apply for Solar KEYMARK certification.

In order to avoid any confusion that the complete thermodynamic system was certified, on the certificate, data sheet and in product flyers and website of the certificate holder the following remark needs to be added (e.g. via a foot note):

The product was tested and certified as a solar collector. The product is not certified for any use as evaporator of a thermal system with a heat pump.

In cases of collectors designed for the evaporation of the heat transfer fluid, the factory inspection also has to include the aspect of gas tightness (e.g. leakage tests are normally carried out with gas) and the documentation / communication only as a collector).

Explanation:

According to accreditation requirements, the testing laboratories and the certification bodies are obliged to test and certify all products, which are in the scope of EN ISO 9806 and EN 12975-1. The Solar KEYMARK certificate confirms the conformity with the respective product standard (only the test results as a solar thermal collector) and the Solar KEYMARK data sheet the technical information of the collector. This is also the case for all other existing Solar KEYMARK certified collectors.

The certificate shows and confirms not the application within a heat pump system. Any statement concerning so-called thermodynamic systems is not allowed.

Solar KEYMARK certification for “thermodynamic systems”, which are intended to work as a heap pump, with an evaporator as a solar collector

This is currently not possible and allowed, because a standardized performance test for the certification of the complete system with the real use is missing.