

SOLAR SIMULATOR USED FOR SOLAR COLLECTORS TESTINGS

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Solar collectors used for hot water preparation and heating are produced all over the world. In order to implement them in any region they have to be adapted to the specific meteorological conditions. In this way there is a high interest in increasing the efficiency of solar thermal collectors. This interest is shown up at Transilvania University of Brașov where a solar collector with a modularized construction is designed. Some components of the collector can be replaced by others in order to find the best combination which corresponds to the maximum efficiency [1, 3, 4]. In order to find the response given by each combination of collector it is needed a test rig which can give in the laboratory the same conditions as the outdoor ones. For the testing methodology standards are given. In the laboratory tests a solar simulator which radiates the collector is used.



Fig.1. Solar simulator

The paper presents a solar simulator which fulfills the requirements for solar thermal collector efficiency tests specified in European standard 12975-2:2006.

References

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