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Validation of PHPP 10 using ANSI/ASHRAE Standard 140-2014

The Passive House Planning Package (PHPP) is a software tool for calculating the energy balance of buildings. In order to determine the useful heating and cooling demand, a monthly energy balance based on ISO 13790 / ISO 52016 is used.

ASHRAE 140 is a comprehensive standard method of test for evaluating whole building energy analysis and simulation software programs. The Class II test cases are a comparative validation method consisting of approximately 40 carefully described test cases. Results from modelling the different cases with the software being tested are compared to those of three dynamic reference software products in order to identify any erroneous results.

Remi Charron Consulting Services carried out an independent validation of PHPP 9.6 (EN) with reference to the ASHRAE Standard 140-2014 Class II test cases. The results were published in January 2019. It was shown that the PHPP results are within the acceptance range defined in Annex B22 of the standard.

The current version of the PHPP is available in German and English, the version number is 10.3. PHI confirms that the algorithms for the calculation of the useful heating and cooling demand, as they become relevant in the framework of the ASHRAE 140 validation, have not been changed

deliberately from version 9.6. For verification, PHI rechecked all test cases and found that the agreement has indeed not deteriorated.

Kind regards



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