The EN 15316-4-3 Energy performance of buildings

- Method for calculation of system energy requirements and system efficiencies
- Part 4-3: Heat generation systems, thermal solar and photovoltaic systems out for Formal Vote



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Purpose

The standard is 1 of the 52 standards in the framework of EPBD standards that work together to determine the energy performance of the building.

Scope

The EN 15316-4-3 covers solar thermal systems and solar photovoltaic systems as energy producing elements in buildings.

Main revisions

The EN 15316-4-3 replaces the previous EN 15316-4-3:2007 (solar thermal) and EN 15316-4-6:2007 (solar photovoltaic) covering now both solar technologies in one standard.

For each technology three methods are included based on an annual, monthly and hourly time step.

- Method 2, the former monthly method B on solar thermal, in the standard is greatly improved based on comments received during the previous years. Moreover, during the enquiry stage many experts have studied the draft standard and commented on it, improving the quality of the method even more.
- The hourly methods are new and offer an excellent

- opportunity for accurate assessment of the energy performance with very transparent calculation methods.
- The editorial layout of the methods has been greatly improved in order to facilitate the software designers.
- The connection with the CEN product standards is maintained and broadened with required new standards.
- Annexes have been added to link the standard to the requirements of the European Ecodesign and energy labelling regulations.

Special points for consideration

- By combining the two standards EN 15316-4-3:2007 and EN 15316-5:2007 an hourly simulation model is described covering solar thermal systems, a heat storage system, a backup heater and water and space heating.
- In the framework of the Energy labelling regulation the so called SOLCAL method, based on the EN15316-4-3:2007, is prescribed for solar thermal systems. However, this method is known to have faults. The new EN 15316-4-3 corrects those faults and offers, through the extra annexes meant for harmonization, an alternative and better method. ■