

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of
EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

Universität Stuttgart

Institut für Thermodynamik und Wärmetechnik (ITW)

Forschungs- und Testzentrum für Solaranlagen (TZS)

Pfaffenwaldring 6, 70550 Stuttgart

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

Thermal Solar Systems and components

The accreditation certificate shall only apply in connection with the notice of accreditation of 01.11.2016 with the accreditation number D-PL-11027-05 and is valid until 31.10.2021. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 3 pages.

Registration number of the certificate: **D-PL-11027-05-00**

Berlin, 01.11.2016


Dr. Heike Manke
Head of Division

Deutsche Akkreditierungsstelle GmbH

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The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkKS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11027-05-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 01.11.2016 to 31.10.2021

Date of issue: 01.11.2016

Holder of certificate:

Universität Stuttgart
Institut für Thermodynamik und Wärmetechnik (ITW)
Forschungs- und Testzentrum für Solaranlagen (TZS)
Pfaffenwaldring 6, 70550 Stuttgart

Tests in the fields:

Thermal Solar Systems and components

Abbreviations used: see last page

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

ISO/FDIS 22975-1
2016-06

Solar energy — Collector components and materials —Part 1:
Evacuated tubes — Durability and performance

ISO/FDIS 22975-2
2016-06

Solar energy — Collector components and materials —Part 2:
Heat-pipe for solar thermal application — Durability and
performance

ISO 9459-2
1995-08

Solar heating – Domestic water heating systems – Part 2:
Outdoor test methods for system performance
characterization and yearly performance prediction of solar-
only systems

ISO 9459-4 2013-02	Solar heating – Domestic water heating systems – Part 4: System performance characterization by means of component tests and computer simulation
ISO 9459-5 2007-05	Solar heating – Domestic water heating systems – Part 5: System performance characterization by means of whole- system tests and computer simulation
ISO 9806 2013-11	Solar energy – Solar thermal collectors – Test methods Excluding sections: 7: Leakage test 8: Rupture test 23.2, 24.4.2.3 and 24.5.3: Air heating collectors
ICC 900/ SRCC 300 2015-04	Solar Thermal System Standard
ICC 901/ SRCC 100 2015-04	Solar Thermal Collector Standard
SRCC Document TM-1: 2015-03	Solar Thermal Component Test and Analyses Protocol
AS/NZS 2535.1 2007	Test methods for solar collectors – Part 1: Thermal performance of glazed liquid heating collectors including pressure drop
AS/NZS 2712 2007	Solar and heat pump water heaters – design and construction
ANSI/ASHRAE 93 2010	Methods of testing to determine the thermal performance of solar collectors
*prEN 12975-1 2013-05	Thermal solar System and components – solar collectors – Part 1: General Requirements
EN 12975-2 2006-03	Thermal solar System and components – solar collectors – Part 2: Test methods
EN 12976-1 2006-04	Thermal solar system and components - Solar collectors - Part 1: General requirements
EN 12976-2 2006-04	Thermal solar System and components – factory made systems – Part 2: Test methods

Annex to the accreditation certificate D-PL-11027-05-00

EN 12977-1 2012-06	Thermal solar system and components - Custom build systems - Part 1: General requirements for solar water heaters and combi-systems
EN 12977-2 2012-06	Thermal solar System and components – custom build systems – Part 2: Test methods for solar water heaters and combisystems
EN 12977-3 2012-06	Thermal solar System and components – custom build systems – Part 3: Performance characterization of stores for solar heating systems
EN 12977-4 2012-06	Thermal solar System and components – custom build systems – Part 4: Performance test methods for solar combistores
EN 12977-5 2012-06	Thermal solar System and components – custom build systems – Part 5: Performance test methods for control equipment
EN 12897 2006-07	Water supply - Specification for indirectly heated unvented (closed) storage water heaters
EN 15332 2008-01	Energy assessment of hot water storage systems
EN 60379 2004-02	Methods for measuring the performance of electric storage water-heaters for household purposes

**The requirements to the test laboratory according to article 43 of the construction products regulation are fulfilled under the assumption that the Standard will be harmonised in the existing form. Test methods which are required for the evaluation of the product type and cannot be conducted by the certificate holder are listed in a list of subcontractors.*

Abbreviations used:

ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
AS/NZS	Australian/New Zealand Standard
EN	European Norm
ICC	International Code Council
ISO	International Standards Organisation
SRCC	Solar Rating and Certification Corporation