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Solar energy - Solar thermal collectors - Test methods (ISO 9806:2017)

Solarenergie - Thermische Sonnenkollektoren - Prüfverfahren (ISO 9806:2017)

Énergie solaire - Capteurs thermiques solaires - Méthodes d'essai (ISO 9806:2017)

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EUROPEAN STANDARD
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**Solar energy - Solar thermal collectors - Test methods (ISO
9806:2017)**

Énergie solaire - Capteurs thermiques solaires -
Méthodes d'essai (ISO 9806:2017)

Solarenergie - Thermische Sonnenkollektoren -
Prüfverfahren (ISO 9806:2017)

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European foreword

This document (EN ISO 9806:2017) has been prepared by Technical Committee ISO/TC 180 "Solar energy" in collaboration with Technical Committee CEN/TC 312 "Thermal solar systems and components" the secretariat of which is held by ELOT.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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**Solar energy — Solar thermal
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Énergie solaire — Capteurs thermiques solaires — Méthodes d'essai

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 312, *Thermal solar systems and components*, in collaboration with ISO Technical Committee TC 180, *Solar energy*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition ISO 9806:2013, which has been technically revised.

Introduction

This document defines procedures for testing fluid heating solar collectors for thermal performance, reliability, durability and safety under well-defined and repeatable conditions. It contains performance test methods for conducting tests outdoors under natural solar irradiance and natural and simulated wind and for conducting tests indoors under simulated solar irradiance and wind. Outdoor tests can be performed either steady-state or as all-day measurements, under changing weather conditions.

Collectors tested according to this document represent a wide range of applications, e.g. glazed flat plate collectors and evacuated tube collectors for domestic water and space heating, collectors for heating swimming pools or for other low temperature systems or tracking concentrating collectors for thermal power generation and process heat applications. This document is applicable to collectors using liquids, as well as air as heat transfer fluid. Similarly, collectors using external power sources for normal operation and/or safety purposes (overheating protection, environmental hazards, etc.), as well as hybrid devices generating thermal power and electrical power are also considered.

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