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Standard**

**ISO 9806**

**Solar energy — Solar thermal  
collectors — Test methods**

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d'essai*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 document 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](http://www.iso.org/directives)).

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

This third edition cancels and replaces the second edition (ISO 9806:2017), which has been technically revised.

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The main changes are as follows:

- [Subclause 5.2](#): language used concerning maximum operating conditions is harmonised by introducing the concept of the design operating range;
- description of the testing of tracking collectors, such as parabolic trough collectors and Linear Fresnel collectors, is updated in several places to improve coherence with the standards of IEC/TC 117, *Solar thermal electric plants*;
- [Clause 16](#): new clause is introduced to clarify the procedures for testing collectors with active self-protection mechanisms;
- mathematical model for the thermal performance is simplified; thermal performance parameter  $a_7$  is removed without direct replacement;
- reduced wind speed  $u'$  is replaced by  $u$ ;
- [Annex I](#): new validation procedure (Valicol) introduced to allow verification of the measured thermal performance parameters;
- Introduction: comprehensive statement on the environmental impact of thermal solar collectors and their potential contribution to achieving the United Nations Sustainable Development Goals (SDGs) is added;
- [Annex B](#): gross yield concept is introduced to allow for a standardized rating of the possible energy yield of solar thermal collectors;