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Solar energy — Solar thermal collectors — Test methods

Énergie solaire — Capteurs solaires thermiques — Méthodes d'essai

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Foreword

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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.

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;