



## DRAFT TANZANIA STANDARD

**(Draft for comments only)**

---

**Electrical accessories – Circuit-breakers for overcurrent protection  
for household and similar installations - Part 3: Circuit-breakers for  
DC operation**

**TANZANIA BUREAU OF STANDARDS**

---



## 1 National Foreword

This draft Tanzania Standard has been prepared by the TBS Electrical Equipment Technical Committee, under the supervision of the Electrotechnical Divisional Standards Committee (EDC)

This draft Tanzania Standard is identical to the International Standard IEC 60898-3:2019+AMD1:2022 Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations - Part 3: Circuit-breakers for DC operation, which has been prepared by the International Electrotechnical Commission.

## 2 Terminology and conventions

Some terminologies and certain conventions are not identical with those used in Tanzania standards; attention is drawn especially to the following: -

- 1) The comma has been used as a decimal marker for metric dimensions. In Tanzania Standards, it is current practice to use “full point” on the baseline as the decimal marker.
- 2) Where the words “International Standard(s)” appear, referring to this standard they should read “Tanzania Standard(s)”



**ELECTRICAL ACCESSORIES – CIRCUIT-BREAKERS FOR  
OVERCURRENT PROTECTION FOR HOUSEHOLD  
AND SIMILAR INSTALLATIONS –  
Part 3: Circuit-breakers for DC operation**

**1 Scope**

This part of IEC 60898 applies to DC circuit-breakers, having a rated DC voltage not exceeding 440 V, a rated current not exceeding 125 A and a rated short-circuit capacity not exceeding 10 000 A.

These circuit-breakers are intended for the protection against overcurrents of wiring installations of buildings and similar applications; they are designed for use by uninstructed people and for not being maintained.

They are intended for use in an environment with pollution degree 2.

They are suitable for isolation.

Circuit-breakers in compliance with this document are suitable for use in TN, TT, and, under specific conditions, IT systems.

This document also applies to circuit-breakers having more than one rated current, provided that the means for changing from one discrete rating to another is not accessible in normal service and that the rating cannot be changed without the use of a tool.

This document does not apply to

- circuit-breakers intended to protect motors;
- circuit-breakers, the current setting of which is adjustable by means accessible to the user.

For circuit-breakers having a degree of protection higher than IP20 according to IEC 60529, for use in locations where arduous environmental conditions prevail (e.g. excessive humidity, heat or cold or deposition of dust) and in hazardous locations (e.g. where explosions are liable to occur), special constructions can be required.



For an environment with a higher pollution degree, enclosures giving the appropriate degree of protection are used.

This document does not apply to circuit-breakers for AC operation, which is covered by IEC 60898-1.

This document does not apply to circuit-breakers for AC and DC operation, which is covered by IEC 60898-2.

Circuit breakers according to this document have a high resistance against unwanted tripping, regardless whether caused by in-rush currents through loading of electronic loads or by switching operations in the circuit.

NOTE Circuit-breakers within the scope of this document can also be used for protection against electric shock in

case of a fault, depending on their tripping characteristics and on the characteristics of the installation. The

criterion of application for such purposes is dealt with by installation rules.

This document contains all requirements necessary to ensure compliance with the operational characteristics required for these devices by type tests.

It also contains the details relative to test requirements and methods of testing necessary to ensure reproducibility of test results.

Guidance on the coordination, under short-circuit conditions, between a circuit-breaker and another short-circuit protective device (SCPD) is given in Annex C.

Routine tests intended to reveal, as far as safety is concerned, unacceptable variations in material or manufacture are given in Annex G.

## **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.



IEC 60050-441, International Electrotechnical Vocabulary – Switchgear, controlgear and fuses  
(available at <http://www.electropedia.org>)

IEC 60227 (all parts), Polyvinyl chloride insulated cables of rated voltages up to and including  
450/750 V

IEC 60228:2004, Conductors of insulated cables

IEC 60269 (all parts), Low-voltage fuses

IEC 60417, Graphical symbols for use on equipment (available at  
<http://www.graphicalsymbols.info/equipment>)

IEC 60529, Degrees of protection provided by enclosures (IP Code)

IEC 60664-1:2007, Insulation co-ordination for equipment within low-voltage systems – Part 1:  
Principles, requirements and tests

IEC 60695-2-10, Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods –  
Glow-wire apparatus and common test procedure

IEC 60695-2-11:2014, Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods –  
Glow-wire flammability test method for end-products (GWEPT)

IEC 60947-2:2016, Low-voltage switchgear and controlgear – Part 2: Circuit-breakers