



DRAFT TANZANIA STANDARD

(Draft for comments only)

Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters

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 International Standard IEC 60947-4-1:2018 Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters, 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)”



Low voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters

This part of IEC 60947 is applicable to the following equipment:

- electromechanical contactors and starters including motor protective switching device (MPSD);

- actuators of contactor relays;

- contacts dedicated exclusively to the coil circuit of this contactor or this contactor relay;

- dedicated accessories (e.g. dedicated wiring, dedicated latch accessory);

intended to be connected to distribution circuits, motors circuits and other load circuits, the rated voltage of which does not exceed 1 000 V AC or 1 500 V DC.

This document covers also the assessment procedure for electromechanical overload protection used in safety applications such as protecting a motor located in explosive atmosphere from the outside atmosphere: See Annex L.

This document does not apply to:

- starters for DC motors 1;

NOTE 1 The requirements for DC motor starters are under consideration for the next maintenance cycle.

- auxiliary contacts of contactors and contacts of contactor relays. These are covered by IEC 60947-5-1;

- starter used downstream to frequency drive¹;

NOTE 2 Additional requirements for starter used downstream to frequency drive are under consideration for

the next maintenance cycle.

- short-circuit protective device integrated within starters other than MPSDs. This is covered by IEC 60947-2 and IEC 60947-3;

- the use of the product with additional measure within explosive atmospheres. These are given in IEC 60079 series;

- embedded software design rules¹;

- cyber security aspects. These are covered by IEC 62443 series.

The objective of this document is to state:



- a) the characteristics of the equipment;
- b) the conditions applicable to the equipment with reference to:
 - 1) its operation and behaviour,
 - 2) its dielectric properties,
 - 3) its degree of protection,
 - 4) its construction including safety measures against electric shock, fire hazard and mechanical hazard;
- c) the tests intended for confirming that these conditions have been met, and the methods to be adopted for these tests;
- d) the information to be given with the equipment or in the manufacturer's literature.