Switches for household and similar fixed electrical installations-
Part 2-2: Particular requirements—Electromagnetic remote control
switches (RCS)
1 National Foreword

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

This draft Tanzania Standard is identical to International Standard IEC 60669-2-2:2006 Switches for household and similar fixed electrical installations-Part 2-2:Particular requirements-Electromagnetic remote control switches (RCS) ,which has been prepared by the International Electrotechnical Commission.

This draft Tanzania Standard replaces TZS 771-2-2:2003 which has become technically revised due to international developments.

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)”.

3) The rated supply frequencies for Tanzania should be 50 Hz.
Switches for household and similar fixed electrical installations –
Part 2-2: Particular requirements – Electromagnetic remote-control switches (RCS)
CONTENTS

FOREWORD............................................................................................................................................. 5

1 Scope.................................................................................................................................................. 9
2 Normative references ...................................................................................................................... 9
3 Terms and definitions ....................................................................................................................... 11
4 General requirements ...................................................................................................................... 13
5 General notes on tests ..................................................................................................................... 15
6 Ratings ............................................................................................................................................. 15
7 Classification .................................................................................................................................. 15
8 Marking ........................................................................................................................................... 17
9 Checking of dimensions .................................................................................................................. 19
10 Protection against electric shock .................................................................................................... 19
11 Provision for earthing ..................................................................................................................... 19
12 Terminals ..................................................................................................................................... 19
13 Constructional requirements ........................................................................................................ 19
14 Mechanism ................................................................................................................................... 19
15 Resistance to ageing, protection provided by enclosures of switches and resistance to humidity ......................................................................................................................... 21
16 Insulation resistance and electric strength .................................................................................... 21
17 Temperature rise ............................................................................................................................ 21
18 Making and breaking capacity ....................................................................................................... 23
19 Normal operation ............................................................................................................................ 23
20 Mechanical strength ....................................................................................................................... 25
21 Resistance to heat ........................................................................................................................... 25
22 Screws, current-carrying parts and connections ........................................................................... 25
23 Creepage distances, clearances and distances through sealing compound ................................ 25
24 Resistance of insulating material to abnormal heat, to fire and to tracking ................................ 29
25 Resistance to rusting ....................................................................................................................... 29
26 EMC requirements ......................................................................................................................... 29
101 Abnormal operation of the control circuit ..................................................................................... 29

Table 101 – Temperature-rise limits for insulated coils in air ............................................................. 23
FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.

3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.

4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.

5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.

6) All users should ensure that they have the latest edition of this publication.

7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.

Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60669-2-2 has been prepared by subcommittee 23B: Plugs, socket-outlets and switches, of IEC technical committee 23: Electrical accessories.

This third edition cancels and replaces the second edition published in 1996 and amendment 1 (1997) of which it constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

– clarification of the scope to exclude electronic RCS (to be covered by IEC 60669-2-1);
– introduction of symbols under Clause 8;
– introduction of requirements for SELV/PELV.
The text of this standard is based on the following documents:

<table>
<thead>
<tr>
<th>FDIS</th>
<th>Report on voting</th>
</tr>
</thead>
<tbody>
<tr>
<td>23B/825/FDIS</td>
<td>23B/839/RVD</td>
</tr>
</tbody>
</table>

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This part of IEC 60669 is to be used in conjunction with IEC 60669-1. It lists the changes necessary to convert that standard into a specific standard for electromagnetic remote-control switches.

In this publication, the following print types are used:

- requirements proper: in roman type;
- test specifications: in italic type;
- notes: in smaller roman type.

Subclauses, figures or tables which are additional to those in part 1 are numbered starting from 101.

A list of all parts of IEC 60669 series, under the general title "Switches for household and similar fixed-electrical installations," can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.
SWITCHES FOR HOUSEHOLD AND SIMILAR FIXED ELECTRICAL INSTALLATIONS –

Part 2-2: Particular requirements –
Electromagnetic remote -control switches (RCS)

1 Scope

This clause of part 1 is applicable except as follows:

Replacement of the first sentence:

This part of IEC 60669 applies to electromagnetic remote-control switches (hereinafter referred to as RCS) with a rated voltage not exceeding 440 V and a rated current not exceeding 63 A, intended for household and similar fixed electrical installations, either indoors or outdoors.

The RCS coil may or may not be permanently energized.

Electronic RCS are within the scope of IEC 60669-2-1.

RCS including only passive components such as resistors, capacitors, PTC and NTC components and printed wiring boards are not considered to be electronic RCS.

Contactors are not covered by this standard.

2 Normative references

This clause of part 1 is applicable with the following additions:

IEC 60085:2004, Electrical insulation - Thermal classification

IEC 60317, Specifications for particular types of winding wires

IEC 60445:1999, Basic and safety principles for man- machine interface, marking and identification – Identification of equipment terminals and of terminations of certain designated conductors, including general rules for an alphanumeric system

IEC 60669-2-1:2002, Switches for household and similar fixed electrical installations – Part 2-1: Particular requirements – Electronic switches

IEC 61140, Protection against electric shock – Common aspects for installation and equipment

IEC 61558-2-6:1997 Safety of power transformers, power supply units and similar – Part 2-6: Particular requirements for safety isolating transformers for general use