DRAFT TANZANIA STANDARD

(Draft for comments only)

Rotating electrical machines – Part 1: Rating and performance

TANZANIA BUREAU OF STANDARDS
1 National Foreword

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

This draft Tanzania Standard is identical to International Standard IEC 60034-1:2017 Rotating electrical machines – Part 1: Rating and performance, which has been prepared by the International Electrotechnical Commission.

This second edition draft Tanzania Standard replaces TZS 1223:2009 Low-voltage switchgear and controlgear – Part 1 – General rules, 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)”.
1 Scope

This part of IEC 60034 is applicable to all rotating electrical machines except those covered by other IEC standards, for example, IEC 60349.

Machines within the scope of this document may also be subject to superseding, modifying or additional requirements in other standards, for example, IEC 60079 and IEC 60092.

NOTE If particular clauses of this document are modified to meet special applications, for example machines subject to radioactivity or machines for aerospace, all other clauses apply insofar as they are compatible.

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 60027-1, Letter symbols to be used in electrical technology – Part 1: General

IEC 60027-4, Letter symbols to be used in electrical technology – Part 4: Rotating electric machines

IEC 60034-2 (all parts), Rotating electrical machines – Part 2: Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles)

IEC 60034-3, Rotating electrical machines – Part 3: Specific requirements for synchronous generators driven by steam turbines or combustion gas turbines

IEC 60034-5, Rotating electrical machines – Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) – Classification

IEC 60034-6, Rotating electrical machines – Part 6: Methods of cooling (IC code)

IEC 60034-8, Rotating electrical machines – Part 8: Terminal markings and direction of rotation


IEC 60034-15, Rotating electrical machines – Part 15: Impulse voltage withstand levels of form-wound stator coils for rotating a.c. machines

IEC 60034-18 (all parts), Rotating electrical machines – Part 18: Functional evaluation of insulation systems
IEC 60034-18-41, Rotating electrical machines – Part 18-41: Partial discharge free electrical insulation systems (Type I) used in rotating electrical machines fed from voltage converters – Qualification and quality control tests
IEC TS 60034-25, *Rotating electrical machines – Part 25: AC electrical machines used in power drive systems – Application guide*

IEC 60034-29, *Rotating electrical machines – Part 29: Equivalent loading and superposition techniques – Indirect testing to determine temperature rise*

IEC 60034-30-1, *Rotating electrical machines – Part 30-1: Efficiency classes of line operated A.C. motors (IE-code)*

IEC 60038, *IEC standard voltages*


IEC 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60072 (all parts), *Dimensions and output series for rotating electrical machines*

IEC 60085, *Electrical insulation – Thermal evaluation and designation*

IEC 60204-1, *Safety of machinery – Electrical equipment of machines – Part 1: General requirements*

IEC 60204-11, *Safety of machinery – Electrical equipment of machines – Part 11: Requirements for HV equipment for voltages above 1 000 V a.c. or 1 500 V d.c. and not exceeding 36 kV*


IEC 60445, *Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals, conductor terminations and conductors*

IEC 60664-1, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 61148, *Terminal markings for valve device stacks and assemblies and for power conversion equipment*

IEC 61293, *Marking of electrical equipment with ratings related to electrical supply – Safety requirements*

CISPR 11, *Industrial, scientific and medical equipment – Radiofrequency disturbance characteristics – Limits and methods of measurement*

CISPR 14 (all parts), *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus*

CISPR 16 (all parts), *Specification for radio disturbance and immunity measuring apparatus and methods*