IEC TS 60034-25

Edition 3.0 2014-10

TECHNICAL SPECIFICATION

SPECIFICATION TECHNIQUE

Rotating electrical machines –
Part 25: AC electrical machines used in power drive systems – Application guide

Machines électriques tournantes –
Partie 25: Machines électriques à courant alternatif utilisées dans les entraînements électriques de puissance – Guide d'application

IEC TS 60034-25:2014-10(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE XC
CODE PRIX

ICS 29.160

ISBN 978-2-8322-1876-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 60034-25, which is a technical specification, has been prepared by IEC technical committee 2: Rotating machinery.

This third edition of IEC TS 60034-25 cancels and replaces the second edition of IEC TS 60034-25, published in 2007, and the fourth edition of IEC TS 60034-17, published in 2006. It constitutes a technical revision.

The main technical changes with regard to the previous editions of IEC TS 60034-25 and IEC TS 60034-17 are as follows:

a) merging of IEC TS 60034-17 into IEC TS 60034-25 adding Clause 18 which now includes all specific requirements for standard non-definite purpose electric machines. General information and knowledge have been combined with the other Clauses of IEC TS 60034-25;
b) replacement of “U Converter” with “voltage source converter”;
c) replacement of “I Converter” with “current source converter”;
d) redrafting of Clause 7;
e) addition of Subclause 9.2.6;
f) removal of Annex C: Noise increments due to converter supply.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
2/1731/DTS	2/1750/RVC

Full information on the voting for the approval of this technical specification 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.

NOTE A table of cross-references of all IEC TC 2 publications can be found on the IEC TC 2 dashboard on the IEC website.

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- withdrawn,
- replaced by a revised edition, or
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INTRODUCTION

The performance characteristics and operating data for converter-fed electrical machines are influenced by the complete drive system, comprising supply system, converter, cabling, electrical machine, mechanical shafting and control equipment. Each of these components exists in numerous technical variants. Any values quoted in this technical specification are thus indicative only.

In view of the complex technical interrelations within the system and the variety of operating conditions, it is beyond the scope and object of this technical specification to specify numerical or limiting values for all the quantities which are of importance for the design of the power drive system.

To an increasing extent, it is the practice that power drive systems consist of components produced by different manufacturers. The object of this technical specification is to explain, as far as possible, the influence of these components on the design of the electrical machine and its performance characteristics.

This technical specification deals with both a.c. electrical machines which are specifically designed for converter supply and converter-fed electrical machines within the scope of IEC 60034-12, which are designed originally for mains supply.