SLOVENSKI STANDARD
SIST EN 60599:2016

01-marec-2016

Nadomešča:
SIST EN 60599:1999
SIST EN 60599:1999/A1:2007

Električna oprema, impregnirana z mineralnim oljem, v delovanju - Vodilo za tolmačenje rezultatov analize raztopljenih in prostih plinov

Mineral oil-impregnated electrical equipment in service - Guide to the interpretation of dissolved and free gases analysis

Matériels électriques imprégnés d'huile minérale en service - Guide pour l'interprétation de l'analyse des gaz dissous et des gaz libres

Ta slovenski standard je istoveten z: **EN 60599:2016**

ICS:

29.040.10	Izolacijska olja	Insulating oils

SIST EN 60599:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60599

January 2016

ICS 17.220.99; 29.040.10; 29.180

Supersedes EN 60599:1999

English Version

Mineral oil-filled electrical equipment in service - Guidance on the interpretation of dissolved and free gases analysis (IEC 60599:2015)

Matériels électriques remplis d'huile minérale en service - Lignes directrices pour l'interprétation de l'analyse des gaz dissous et des gaz libres (IEC 60599:2015)

In Betrieb befindliche, mit Mineralöl befüllte elektrische Geräte - Leitfaden zur Interpretation der Analyse gelöster und freier Gase (IEC 60599:2015)

This European Standard was approved by CENELEC on 2015-10-21. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 10/967/FDIS, future edition 3 of IEC 60599, prepared by IEC/TC 10 "Fluids for electrotechnical applications" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60599:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-07-21
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-10-21

This document supersedes EN 60599:1999.

EN 60599:2016 includes the following significant technical changes with respect to EN 60599:1999:

a) revision of 5.5, 6.1, 7, 8, 9, 10, A.2.6, A.3, A.7;

b) addition of new subclause 4.3;

c) expansion of the Bibliography;

d) revision of Figure 1;

e) addition of Figure B.4.

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Endorsement notice

The text of the International Standard IEC 60599:2015 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60050-191	1990	International Electrotechnical Vocabulary - Chapter 191: Dependability and quality of service	-	-
IEC 60050-192	2015	International electrotechnical vocabulary - Part 192: Dependability	-	-
IEC 60050-212	2010	International Electrotechnical Vocabulary - Part-212: Electrical insulating solids, liquids and gases	-	-
IEC 60050-604	1987	International Electrotechnical Vocabulary - Chapter 604: Generation, transmission and distribution of electricity - Operation	-	-
IEC 60475	-	Method of sampling insulating liquids	EN 60475	-
IEC 60567	2011	Oil-filled electrical equipment - Sampling of gases and analysis of free and dissolved gases - Guidance	EN 60567	2011
IEC 61198	-	Mineral insulating oils - Methods for the determination of 2-furfural and related compounds	EN 61198	-

IEC 60599

Edition 3.0 2015-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Mineral oil-filled electrical equipment in service – Guidance on the interpretation of dissolved and free gases analysis

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 17.220.99; 29.040.10; 29.180

ISBN 978-2-8322-2899-9

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MINERAL OIL-FILLED ELECTRICAL EQUIPMENT IN SERVICE – GUIDANCE ON THE INTERPRETATION OF DISSOLVED AND FREE GASES ANALYSIS

FOREWORD

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International Standard IEC 60599 has been prepared by IEC technical committee 10: Fluids for electrotechnical applications.

This third edition cancels and replaces the second edition published in 1999 and Amendment 1:2007. This edition constitutes a technical revision.

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

a) revision of 5.5, 6.1, 7, 8, 9, 10, A.2.6, A.3, A.7;
b) addition of new sub-clause 4.3;
c) expansion of the Bibliography;
d) revision of Figure 1;
e) addition of Figure B.4.

The text of this standard is based on the following documents:

FDIS	Report on voting
10/967/FDIS	10/973/RVD

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.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

INTRODUCTION

Dissolved and free gas analysis (DGA) is one of the most widely used diagnostic tools for detecting and evaluating faults in electrical equipment filled with insulating liquid. However, interpretation of DGA results is often complex and should always be done with care, involving experienced insulation maintenance personnel.

This International Standard gives information for facilitating this interpretation. The first edition, published in 1978, has served the industry well, but had its limitations, such as the absence of a diagnosis in some cases, the absence of concentration levels and the fact that it was based mainly on experience gained from power transformers. The second edition attempted to address some of these shortcomings. Interpretation schemes were based on observations made after inspection of a large number of faulty oil-filled equipment in service and concentrations levels deduced from analyses collected worldwide.