
Električna oprema za merjenje, kontrolo in laboratorijsko uporabo - Zahteve za elektromagnetno združljivost (EMC) - 2-4. del: Posebne zahteve - Preskusne konfiguracije, obratovalni pogoji in merila za delovanje naprav za stalno preverjanje izolacije po IEC 61557-8 in opreme za ugotavljanje mesta okvare izolacije po IEC 61557-9

Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-4: Particular requirements - Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment for insulation fault location according to IEC 61557-9

Elektrische Mess-, Steuer-, Regel- und Laborgeräte - EMV-Anforderungen - Teil 2-4: Besondere Anforderungen - Prüfanordnung, Betriebsbedingungen und Leistungsmerkmale für Isolationsüberwachungsgeräte gemäß IEC 61557-8 und Geräte zur Isolationsfehlerortung gemäß IEC 61557-9

Matériel électrique de mesure, de commande et de laboratoire - Exigences relatives à la CEM - Partie 2-4: Exigences particulières - Configurations d'essai, conditions de fonctionnement et critères de performance pour les contrôleurs d'isolement conformes à la CEI 61557-8 et pour les dispositifs de localisation de défaut d'isolement conformes à la CEI 61557-9

Ta slovenski standard je istoveten z: prEN IEC 61326-2-4:2019

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19.080	Električno in elektronsko preskušanje	Electrical and electronic testing
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

oSIST prEN IEC 61326-2-4:2019

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[kSIST FprEN IEC 61326-2-4:2020](https://standards.iteh.ai/catalog/standards/sist/69d45b35-e0fc-4ec2-94c8-a92b69d068d9/ksist-fpren-iec-61326-2-4-2020)

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COMMITTEE DRAFT FOR VOTE (CDV)

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IEC SC 65A : SYSTEM ASPECTS

SECRETARIAT:

United Kingdom

SECRETARY:

Mr Petar Luzajic

OF INTEREST TO THE FOLLOWING COMMITTEES:

TC 77, SC 77A

PROPOSED HORIZONTAL STANDARD:



Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.

FUNCTIONS CONCERNED:

☒ EMC☐ ENVIRONMENT☐ QUALITY ASSURANCE☐ SAFETY☒ SUBMITTED FOR CENELEC PARALLEL VOTING☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING**Attention IEC-CENELEC parallel voting**

The attention of IEC National Committees members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting.

The CENELEC members are invited to vote through the CENELEC online voting system.

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 2-4: Particular requirements – Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment for insulation fault location according to IEC 61557-9

PROPOSED STABILITY DATE: 2023

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL AND LABORATORY USE – EMC REQUIREMENTS –

Part 2-4: Particular requirements – Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment for insulation fault location according to IEC 61557-9

FOREWORD

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International Standard IEC 61326-2-4 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition published in 2012. This edition constitutes a technical revision.

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

– update of the document with respect to IEC 61326-1:2012.

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

FDIS	Report on voting
65A/630/FDIS	65A/639/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.

This part of the IEC 61326 series is to be used in conjunction with IEC 61326-1:2012 and follows the same numbering of clauses, subclauses, tables and figures.

When a particular subclause of IEC 61326-1 is not mentioned in this part, that subclause applies as far as is reasonable. When this standard states “addition”, “modification” or “replacement”, the relevant text in IEC 61326-1 is to be adapted accordingly.

NOTE The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in IEC 61326-1;
- unless notes are in a new subclause or involve notes in IEC 61326-1, they are numbered starting from 101 including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

A list of all parts of the IEC 61326 series, under the general title *Electrical equipment for measurement, control and laboratory use, control and laboratory use – EMC requirements* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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.

ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL AND LABORATORY USE – EMC REQUIREMENTS –

Part 2-4: Particular requirements – Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment for insulation fault location according to IEC 61557-9

1 Scope

In addition to IEC 61326-1, this part of IEC 61326 specifies more detailed test configurations, operational conditions and performance criteria than IEC 61326-1 for equipment for

- insulation monitoring according to IEC 61557-8;
- insulation fault location according to IEC 61557-9.

This applies to insulation monitoring devices and insulation fault location systems permanently or semi-permanently connected to the distribution system.

2 Normative references

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.

Clause 2 of IEC 61326-1:20xx applies, except as follows:

Addition:

IEC 61326-1:20xx, *Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements*

IEC 61557-8:2014, *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 8: Insulation monitoring devices for IT systems*

IEC 61557-9:2014, *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 9: Equipment for insulation fault location in IT systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61326-1 apply, except as follows.

Addition:

165 **3.101**166 **insulation resistance**167 R_F 168 resistance in the system being monitored, including the resistance of all the connected
169 appliances to earth

170 [SOURCE: IEC 61557-8:2014, 3.2]

171 **3.102**172 **specified response value**173 R_{an} 174 value of the INSULATION RESISTANCE, permanently set or adjustable, on the device and
175 monitored if the INSULATION RESISTANCE falls below this limit

176 [SOURCE: IEC 61557-8:2014, 3.3]

177 **3.103**178 **response sensitivity**179 value of the evaluating current or INSULATION RESISTANCE at which the evaluator responds
180 under specified conditions

181 [SOURCE: IEC 61557-9:2014, 3.4]

182 **3.104**183 **nominal voltage of the distribution system**184 U_n 185 voltage by which a distribution system or equipment is designated and to which certain
186 operating characteristics are referred

187 [SOURCE: IEC 61557-1:2007, 3.1]

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188 **3.105**189 **supply voltage**190 U_S 191 voltage at a point where the measuring equipment does or can accept electric energy as a
192 supply

193 [SOURCE: IEC 61557-1:2007, 3.8, modified]

194 **3.106**195 **system leakage capacitance**196 C_e 197 maximum permissible value of the total capacitance to earth of the system to be monitored,
198 including any connected appliances, up to which value the insulation monitoring device can
199 work as specified

200 [SOURCE: IEC 61557-8:2014, 3.6]

201 **4 General**

202 Clause 4 of IEC 61326-1:20xx applies.

203 **5 EMC test plan**204 **5.1 General**

205 Subclause 5.1 of IEC 61326-1:20xx applies.

206 **5.2 Configuration of EUT during testing**

207 **5.2.1 General**

208 Subclause 5.2.1 of IEC 61326-1:20xx applies, except as follows.

209 *Addition:*

210 During the tests, the EUT is supplied as specified by the manufacturer.

211 For EUT having several ratings, the EUT shall be connected

212 – to the lowest nominal SUPPLY VOLTAGE U_S ;

213 – to the highest NOMINAL VOLTAGE OF THE DISTRIBUTION SYSTEM U_n , but not more than 400 V.

214 If the EUT has only a combined terminal for the SUPPLY VOLTAGE and the voltage of the
215 distribution system, it shall be connected to the highest nominal voltage, but not more than
216 400V.

217 If the EUT has interfaces for remote functions, they shall be connected during the tests as
218 specified by the manufacturer for normal installation.

219 Insulation monitoring devices and equipment for insulation fault location shall be tested
220 separately.

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221 **5.2.2 Composition of EUT**

222 Subclause 5.2.2 of IEC 61326-1:20xx applies.

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223 **5.2.3 Assembly of EUT**

224 Subclause 5.2.3 of IEC 61326-1:20xx applies.

225 **5.2.4 I/O PORTS**

226 Subclause 5.2.4 of IEC 61326-1:20xx applies.

227 **5.2.5 AUXILIARY EQUIPMENT**

228 Subclause 5.2.5 of IEC 61326-1:20xx applies.

229 **5.2.6 Cabling and earthing (grounding)**

230 Subclause 5.2.6 of IEC 61326-1:20xx applies.

231 **5.3 Operation conditions of EUT during testing**

232 Subclause 5.3 of IEC 61326-1:20xx applies, except as follows.

233 *Addition:*

234 **5.3.101 Operational conditions**

235 The EUT shall be set as specified by the manufacturer for normal operation.

236 If the EUT has adjustable SPECIFIED RESPONSE VALUES, tests shall be performed as follows: