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Arc welding equipment - Part 4: Periodic inspection and testing

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/25

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NORME EUROPÉENNE
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EN IEC 60974-4

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English Version

**Arc welding equipment - Part 4: Periodic inspection and testing
(IEC 60974-4:2025)**

Matériel de soudage à l'arc - Partie 4: Inspection et essais
périodiques
(IEC 60974-4:2025)

Lichtbogenschweißeinrichtungen - Teil 4: Wiederkehrende
Inspektion und Prüfung
(IEC 60974-4:2025)

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EN IEC 60974-4:2025 (E)**European foreword**

The text of document 26/769/FDIS, future edition 4 of IEC 60974-4, prepared by TC 26 "Electric welding" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60974-4:2025.

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- latest date by which the document has to be implemented at national (dop) 2026-08-31 level by publication of an identical national standard or by endorsement
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IEC 60038:2009 NOTE Approved as EN 60038:2011

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 Where 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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-151	-	International Electrotechnical Vocabulary (IEV) - Part 151: Electrical and magnetic devices	-	-
IEC 60974-1	2021	Arc welding equipment - Part 1: Welding power sources	EN IEC 60974-1	2022
			+ A11	2022
-	-		+ A12	2023
-	-		+ A13	2025
IEC 60974-6	2015	Arc welding equipment - Part 6: Limited duty equipment	EN 60974-6	2016
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61557-2	2019	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 2: Insulation resistance	EN IEC 61557-2	2021
IEC 61557-4	2019	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 4: Resistance of earth connection and equipotential bonding	EN IEC 61557-4	2021
IEC 61557-16	2023	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 16: Equipment for testing the effectiveness of the protective measures of electrical equipment and/or medical electrical equipment	EN IEC 61557-16	2024



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Arc welding equipment –
Part 4: Periodic inspection and testing**

**Matériel de soudage à l'arc –
Partie 4: Inspection et essais périodiques**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT –

Part 4: Periodic inspection and testing

FOREWORD

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IEC 60974-4 has been prepared by IEC technical committee 26: Electric welding. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2016. This edition constitutes a technical revision.

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

- examples for the measurements in respect of EN 50699,
- consideration of measuring equipment in respect of IEC 61557 series,
- more determinations of NO-LOAD VOLTAGE for welding equipment built according to IEC 60974-1:1998 and IEC 60974-1:1998/AMD1:2000 or earlier,

- new Annex D providing additional information to be considered when testing battery-powered WELDING POWER SOURCES and connected chargers.

The text of this International Standard is based on the following documents:

Draft	Report on voting
26/769/FDIS	26/777/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The list of all the parts of the IEC 60974 series, under the general title *Arc welding equipment*, can be found on the IEC website.

In this document, the following print types are used:

- *conformity statements: in italic type.*
- terms defined in Clause 3: in SMALL ROMAN CAPITALS.

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ARC WELDING EQUIPMENT –

Part 4: Periodic inspection and testing

1 Scope

This part of IEC 60974 specifies test procedures for PERIODIC INSPECTION and, after REPAIR, to ensure electrical safety. These test procedures are also applicable for MAINTENANCE.

This document is applicable to power sources for arc welding and allied processes designed in accordance with IEC 60974-1 or IEC 60974-6. Stand-alone ancillary equipment designed in accordance with other parts of IEC 60974 can be tested in accordance with relevant requirements of this part of IEC 60974.

This document includes requirements for battery-powered ARC WELDING POWER SOURCES, which are given in Annex D.

NOTE 1 The WELDING POWER SOURCE can be tested with any ancillary equipment fitted that can affect the test results.

This document is not applicable to testing of new power sources or engine-driven power sources.

NOTE 2 For a power source not built in accordance with IEC 60974-1, see Annex C.

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 60050-151, *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60974-1:2021, *Arc welding equipment – Part 1: Welding power sources*

IEC 60974-6:2015, *Arc welding equipment – Part 6: Limited duty equipment*

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

IEC 61557-2:2019, *Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC – Equipment for testing, measuring or monitoring of protective measures – Part 2: Insulation resistance*

IEC 61557-4:2019, *Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC – Equipment for testing, measuring or monitoring of protective measures – Part 4: Resistance of earth connection and equipotential bonding*

IEC 61557-16:2023, *Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC – Equipment for testing, measuring or monitoring of protective measures – Part 16: Equipment for testing the effectiveness of the protective measures of electrical equipment and/or medical electrical equipment*

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