

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Arc welding equipment –  
Part 3: Arc striking and stabilizing devices**

**Matériel de soudage à l'arc –  
Partie 3: Dispositifs d'amorçage et de stabilisation de l'arc**





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COMMISSION

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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Environmental conditions.....	7
5 Tests .....	7
5.1 Test conditions .....	7
5.2 Measuring instruments.....	7
5.3 Conformity of components .....	7
5.4 Type tests.....	7
5.5 Routine tests.....	8
5.5.1 Stand-alone unit .....	8
5.5.2 Built-in unit .....	8
6 Protection against electric shock .....	8
6.1 Insulation .....	8
6.1.1 General .....	8
6.1.2 Clearances .....	8
6.1.3 Creepage distances.....	8
6.1.4 Insulation resistance.....	9
6.1.5 Dielectric strength.....	9
6.2 Protection against electric shock in normal service (direct contact).....	10
6.3 Protection against electric shock in case of a fault condition (indirect contact) .....	10
6.4 Protective provision .....	10
7 Thermal requirements.....	10
8 Thermal protection.....	10
9 Abnormal operation .....	10
10 Connection to the supply network.....	11
11 Output .....	11
11.1 Rated peak voltage.....	11
11.2 Impulse current .....	12
11.2.1 Risk of electric shock.....	12
11.2.2 Electric charge.....	12
11.2.3 Direct contact .....	12
11.2.4 Series contact.....	13
11.3 Mean energy .....	14
11.4 Output circuit capacitance discharging .....	15
11.5 Additional requirements .....	15
12 Control circuits .....	16
13 Hazard reducing device .....	16
14 Mechanical provisions .....	16
15 Rating plate .....	16
15.1 General requirements .....	16
15.2 Description .....	17
15.3 Contents .....	17

16	Adjustment of the output.....	18
17	Instructions and markings.....	18
17.1	Instructions.....	18
17.2	Markings.....	18
Annex A (informative)	Examples of coupling systems for arc striking and stabilizing devices.....	19
Annex B (informative)	Example of a rating plate.....	20
	Bibliography.....	21
Figure 1	– Rated peak voltage.....	11
Figure 2	– Measurement of electric charge of impulse current.....	12
Figure 3	– Measuring circuit for direct contact.....	13
Figure 4	– Measuring circuit for serial contact.....	14
Figure 5	– Measurement of mean energy.....	15
Figure 6	– Measuring circuit for capacitance discharging.....	15
Figure 7	– Rating plate.....	17
Figure A.1	– Examples of coupling systems for arc striking and stabilizing devices.....	19
Figure B.1	– Stand-alone unit.....	20
Table 1	– Minimum clearances and creepage distances for arc striking and stabilizing circuits.....	9
Table 2	– Maximum peak voltages.....	11

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## ARC WELDING EQUIPMENT –

## Part 3: Arc striking and stabilizing devices

## FOREWORD

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International Standard IEC 60974-3 has been prepared by IEC technical committee 26: Electric welding.

This fourth edition cancels and replaces the third edition published in 2013 and constitutes a technical revision.

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

- changes induced by the publication of IEC 60974-1:2017;
- reference to IEC 60974-1:2017/AMD1:2019 in Clause 2;
- Figure 2 is updated where a subtraction of the proportion of the no-load voltage is shown;
- requirement for safe operation of the arc striking and stabilising devices in the event of failure, in 11.5;
- requirements for the rating plate as in IEC 60974-1:2017, Clause 15.

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

FDIS	Report on voting
26/671/FDIS	26/676/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this document, the following print types are used:

- conformity statements: in *italic* type.
- terms used throughout this document which have been defined in Clause 3: SMALL CAPITALS.

This International Standard is to be read in conjunction with IEC 60974-1:2017.

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

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## ARC WELDING EQUIPMENT –

### Part 3: Arc striking and stabilizing devices

#### 1 Scope

This part of IEC 60974 specifies safety requirements for industrial and professional ARC STRIKING and ARC STABILIZING DEVICES used in arc welding and allied processes.

This document is applicable to ARC STRIKING and STABILIZING DEVICES which are stand-alone (separate from the welding equipment) or built in (housed in a single enclosure with other arc welding equipment).

NOTE 1 Typical allied processes are, for example, plasma arc cutting and arc spraying.

NOTE 2 This document does not include electromagnetic compatibility (EMC) requirements.

#### 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 60974-1:2017, *Arc welding equipment – Part 1: Welding power sources*  
IEC 60974-1:2017/AMD1:2019

IEC 60974-7:2013, *Arc welding equipment – Part 7: Torches*

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

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60974-1 and IEC 60974-7 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### 3.1 arc striking device

device which superimposes a voltage on the welding circuit to ignite an arc

##### 3.2 arc stabilizing device

device which superimposes a voltage on the welding circuit to maintain an arc