

SLOVENSKI STANDARD SIST EN 60974-3:2014

01-april-2014

Nadomešča:

SIST EN 60974-3:2008

Oprema za obločno varjenje - 3. del: Obločni udari in stabilizatorji (IEC 60974-3:2013)

Arc welding equipment - Part 3: Arc striking and stabilizing devices

iTeh STANDARD PREVIEW

Matériel de soudage à l'arc - Partie 3 Dispositifs d'amorçage et de stabilisation de l'arc

SIST EN 60974-3:2014

Ta slovenski standard/jeristoveten ziog/stan ENs60974-3:2014-43d6-8f02-

df1075be9001/sist-en-60974-3-2014

ICS:

25.160.30 Varilna oprema Welding equipment

SIST EN 60974-3:2014 en

SIST EN 60974-3:2014

iTeh STANDARD PREVIEW (standards.iteh.ai)

EUROPEAN STANDARD

EN 60974-3

NORME EUROPÉENNE EUROPÄISCHE NORM

February 2014

ICS 25.160

Supersedes EN 60974-3:2007

English version

Arc welding equipment Part 3: Arc striking and stabilizing devices

(IEC 60974-3:2013)

Matériel de soudage à l'arc -Partie 3: Dispositifs d'amorçage et de stabilisation de l'arc (CEI 60974-3:2013) Lichtbogenschweißeinrichtungen -Teil 3: Lichtbogenzünd- und stabilisierungseinrichtungen (IEC 60974-3:2013)

iTeh STANDARD PREVIEW (standards.iteh.ai)

This European Standard was approved by CENELEC on 2013-12-31. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Foreword

The text of document 26/518/FDIS, future edition 3 of IEC 60974-3, prepared by IEC/TC 26 "Electric welding" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60974-3:2014.

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
- latest date by which the national standards conflicting with (dow) 2016-12-31 the document have to be withdrawn

This document supersedes EN 60974-3:2007.

EN 60974-3:2014 includes the following significant technical changes with respect to EN 60974-3:2007:

- changes induced by the publication of IEC 60974-1:2012.REVIEW

This standard is to be read in conjunction with EN 60974-1:2012

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

https://standards.iteh.ai/catalog/standards/sist/f475e9b0-e9a9-43d6-8f02-df1075be9001/sist-en-60974-3-2014

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 60974-3:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 60974 NOTE Harmonized in EN 60974 series (not modified).

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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60974-1	2012	Arc welding equipment Part 1: Welding power sources	EN 60974-1	2012
IEC 60974-7	-	Arc welding equipment Part 7:Torches	EN 60974-7	-
IEC 61140	·iT	Protection against electric shock Common aspects for installation and equipment	EN 61140	-

(standards.iteh.ai)

SIST EN 60974-3:2014

iTeh STANDARD PREVIEW (standards.iteh.ai)



IEC 60974-3

Edition 3.0 2013-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Arc welding equipment—STANDARD PREVIEW Part 3: Arc striking and stabilizing devices: iteh.ai)

Matériel de soudage à l'arc - SIST EN 60974-3:2014

Partie 3: Dispositifs d'amorçage et de stabilisation de l'arc 802-

df1075be9001/sist-en-60974-3-2014

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE CODE PRIX R

ICS 25.160 ISBN 978-2-8322-1199-1

Warning! Make sure that you obtained this publication from an authorized distributor.

Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

CONTENTS

FO	REWORI	D		4		
1	Scope.	Scope				
2	Normat	Normative references				
3	Terms	Terms and definitions				
4	Environmental conditions					
5	Tests					
	5.1		itions			
	5.2		g instruments			
	5.3	· · · · · · · · · · · · · · · · · · ·				
	5.4	Type tests				
	5.5 Routine tests					
	0.0	5.5.1	Stand-alone unit			
		5.5.2	Built-in unit			
6	Protect		electric shock			
	6.1 Insulation					
	0.1	6.1.1	General			
		6.1.2	Clearances	_		
		6.1.4	Creepage distances	9		
		6.1.5	Dielect (is strengthards.iteh.ai)	9		
	6.2 Protection against electric shock in normal service (direct contact)					
	6.3 Protection against electric shock in case of a fault condition (indirect					
		contact()s:	//standards.iteh.ai/catalog/standards/sist/f475e9b0-e9a9-43d6-8f02-			
	6.4		provision ^{lf1075be90} 01/sist-en-60974-3-2014			
7	Therma	ıl requireme	ents	10		
8	Therma	I protection	l	10		
9	Abnorm	nal operation	n	10		
10	Connec	tion to the	supply network	11		
11	Output			11		
	11.1 Rated peak voltage					
	11.2 Impulse current					
		11.2.1	Risk of electric shock			
		11.2.2	Electric charge			
		11.2.3	Direct contact			
		11.2.4	Series contact	13		
	11.3 Mean energy					
	11.4 Output circuit capacitance discharging					
12	Control	circuits		15		
13	Hazard	reducing de	evice	15		
14	Mechar	nical provisi	ons	15		
15						
	_					
16	Adjustment of the output					
17	Instructions and markings					
	17.1 Instructions					
	17.2	Markings.		17		

Annex A (informative) Examples of coupling systems for arc striking and stabilizing devices	18
Annex B (informative) Example of a rating plate	19
Bibliography	20
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	14
Figure 6 – Measuring circuit for capacitance discharging	15
Figure A.1 – Examples of coupling systems for arc striking and stabilizing devices	18
Figure B.1 – Stand-alone unit	19
Table 1 – Minimum clearances and creepage distances for arc striking and stabilizing circuits	9
Table 2 – Maximum peak voltages	

iTeh STANDARD PREVIEW (standards.iteh.ai)

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT -

Part 3: Arc striking and stabilizing devices

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate. IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity IEC is not responsible for any services carried out by independent certification bodies:n-60974-3-2014
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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

This third edition cancels and replaces the second edition published in 2007 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 60974-1:2012.

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

FDIS	Report on voting	
26/518/FDIS	26/521/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 standard shall be read in conjunction with IEC 60974-1:2012.

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

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 ANDARD PREVIEW
- amended.

(standards.iteh.ai)