

<b>STN</b>	<b>Zariadenia na oblúkové zvaranie. Časť 6: Zariadenia s obmedzeným trvaním prevádzky.</b>	<b>STN EN 60974-6</b>  05 2205
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Arc welding equipment - Part 6: Limited duty equipment

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. 04/16

Obsahuje: EN 60974-6:2016, IEC 60974-6:2015

Oznámením tejto normy sa od 27.10.2018 ruší  
STN EN 60974-6 (05 2205) z novembra 2011

122645



Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016  
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD

**EN 60974-6**

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2016

ICS 25.160.30

Supersedes EN 60974-6:2011

English Version

**Arc welding equipment - Part 6: Limited duty equipment  
(IEC 60974-6:2015)**

Matériel de soudage à l'arc - Partie 6: Matériel à service  
limité  
(IEC 60974-6:2015)

Lichtbogenschweißrichtungen - Teil 6:  
Schweißstromquellen mit begrenzter Einschaltdauer  
(IEC 60974-6:2015)

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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 26/572/FDIS, future edition 3 of IEC 60974-6, prepared by IEC/TC 26 "Electric welding" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60974-6:2016.

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) 2016-07-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-10-27

This document supersedes EN 60974-6:2011.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

## Endorsement notice

The text of the International Standard IEC 60974-6:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60085	NOTE	Harmonized as EN 60085.
IEC 60127-1	NOTE	Harmonized as EN 60127-1.
IEC 60269-1	NOTE	Harmonized as EN 60269-1.
IEC 60974	NOTE	Harmonized in EN 60974 series.
IEC 61558-1:2005	NOTE	Harmonized as EN 61558-1:2005 (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 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60974-1	2012	Arc welding equipment - Part 1: Welding power sources	EN 60974-1	2012
IEC 60974-5	2013	Arc welding equipment - Part 5: Wire feeders	EN 60974-5	2013
IEC 60974-7	2013	Arc welding equipment - Part 7: Torches	EN 60974-7	2013
IEC 60974-10	-	Arc welding equipment - Part 10: Electromagnetic compatibility (EMC) requirements	EN 60974-10	-
IEC 60974-11	-	Arc welding equipment - Part 11: Electrode holders	EN 60974-11	-
IEC 61032	1997	Protection of persons and equipment by enclosures - Probes for verification	EN 61032	1998
ISO 2503	-	Gas welding equipment - Pressure regulators and pressure regulators with flow-metering devices for gas cylinders used in welding, cutting and allied processes up to 300 bar (30 MPa)	EN ISO 2503	-



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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**Arc welding equipment –  
Part 6: Limited duty equipment**

**Matériel de soudage à l'arc –  
Partie 6: Matériel à service limité**





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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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**Arc welding equipment –  
Part 6: Limited duty equipment**

**Matériel de soudage à l'arc –  
Partie 6: Matériel à service limité**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 25.160.30

ISBN 978-2-8322-2898-2

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**ARC WELDING EQUIPMENT –****Part 6: Limited duty equipment****FOREWORD**

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International Standard IEC 60974-6 has been prepared by IEC technical committee 26: Electric welding.

This third edition cancels and replaces the second edition published in 2010. It constitutes a technical revision.

The main significant technical changes with respect to the previous edition are the following:

- modified measurement conditions (see 7.3.1);
- improved values for temperature limits according to the class of insulation (see Table 1);
- improved maximum temperature limits (see Table 2);
- deleted overload test.

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

FDIS	Report on voting
26/572/FDIS	26/581/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 is to be used in conjunction with IEC 60974-1:2012.

In this standard, the following print types are used:

– *conformity statements: in italic type.*

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 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

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## **ARC WELDING EQUIPMENT –**

### **Part 6: Limited duty equipment**

#### **1 Scope**

This part of IEC 60974 specifies safety and performance requirements applicable to limited duty arc welding and cutting power sources and auxiliaries designed for use by laymen. Electrically powered equipment is intended to be connected to the single phase public low-voltage supply system. Engine driven power sources cannot exceed output power of 7,5 kVA.

NOTE 1 This equipment is typically used by non-professionals in residential areas.

This part of IEC 60974 is not applicable to arc welding and cutting power sources that require for operation:

- arc striking and stabilizing devices;
- liquid cooling systems;
- gas consoles;
- three-phase input supply;

and which are intended for industrial and professional use only.

This part of IEC 60974 is not applicable to arc welding and cutting power sources and ancillary equipment used in:

- mechanically guided applications;
- submerged arc welding process;
- plasma gouging process;
- plasma welding process;

that are covered by other parts of IEC 60974.

NOTE 2 Power sources, wire feeders, torches and electrode holders designed for industrial and professional use are respectively covered by IEC 60974-1, IEC 60974-5, IEC 60974-7 and IEC 60974-11.

NOTE 3 This part of IEC 60974 does not specify electromagnetic compatibility (EMC) requirements that are given in IEC 60974-10.

#### **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.

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60974-1:2012, *Arc welding equipment – Part 1: Welding power sources*

IEC 60974-5:2013, *Arc welding equipment – Part 5: Wire feeders*

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

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IEC 60974-10, *Arc welding equipment – Part 10: Electromagnetic compatibility (EMC) requirements*

IEC 60974-11, *Arc welding equipment – Part 11: Electrode holders*

IEC 61032:1997, *Protection of persons and equipment by enclosure – Probes for verification*

ISO 2503, *Gas welding equipment – Pressure regulators and pressure regulators with flow-metering devices for gas cylinders used in welding, cutting and allied processes up to 300 bar (30 MPa)*

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