



**ANSI/IEC 60974-12-2009**

**American National Standard  
for Arc Welding Equipment**

**Part 12: Coupling Devices for  
Welding Cables**

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*Arc Welding Equipment—  
Part 12: Coupling Devices for Welding Cables*

*Published by*

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## FOREWORD FOR U.S. ADOPTION

This American National Standard is an adoption of IEC 60974-12, edition 2, *Arc welding equipment – Part 12: Coupling devices for welding cables*, and was developed and approved in accordance with procedures set forth by the American National Standards Institute. Any reference in this standard to an IEC 60974 part is understood to mean a reference to the equivalent ANSI/IEC 60974 part, where it exists.

This standard contains all the original text from IEC 60974-12, edition 2, in addition to a number of U.S. Differences to the IEC standard that were identified by Accredited Standards Committee W1, *Requirements for Apparatus Designed for Use in Arc Welding, Plasma Arc Cutting, and Allied Processes*. Each U.S. Difference is found both in a compilation of U.S. Differences following this foreword, and inserted in the appropriate place(s) in the standard relating to the difference. Each insertion is in red text and is marked by three lines on its left (two thin, one thick). Each difference is identified with the following format:

[Clause/Subclause Number]DV[Number of Difference for the Given Clause/Subclause]

Following this format, the example 17.1DV.3 signifies that it is the third U.S. Difference to subclause 17.1.

Suggestions for the improvement of this standard are welcome and should be submitted to the Secretariat of Accredited Standards Committee W1 as follows:

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This standard was processed and approved by the Accredited Standards Committee W1. Committee approval does not necessarily imply that all Committee members voted for its approval. At the time this standard was approved, Accredited Standards Committee W1 consisted of the following members:

John Freudenberg, Chairman  
Wayne Hoffman, Vice Chairman  
Greg Winchester, Secretary

### **Organization Represented**

American Welding Society

CSA International

CenterLine (Windsor) Ltd.

ESAB Welding and Cutting

Hypertherm Inc.

Lincoln Electric Company

Miller Electric Manufacturing Company

Northeast Product Safety Society

Wayne Hoffman – Consultant / U.S. Technical Advisor, IEC TC 26

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### ARC WELDING EQUIPMENT –

#### Part 12: Coupling devices for welding cables

#### FOREWORD

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International Standard IEC 60974-12 has been prepared by IEC technical committee 26: Electric welding.

This second edition cancels and replaces the first edition published in 1992. This edition constitutes a technical revision.

Major changes with respect to the first edition are the following:

- An operation capability requirement has been added to item b) of Clause 4).
- Tables 1 and 6 have slightly changed values and consider only a 60 % duty cycle.
- Subclause 7.1 "Voltage rating" has been newly introduced.
- Under 7.3 "Dielectric strength", the paragraphs 2 and 5 are newly introduced to consider arc striking and stabilizing devices.
- Examples and design recommendations have been removed from the normative part of the document and introduced in Annex A.

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

FDIS	Report on voting
26/303/FDIS	26/309/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.

IEC 60974 consists of the following parts, under the general title *Arc welding equipment*:

- Part 1: Welding power sources
- Part 2: Liquid cooling systems
- Part 3: Arc striking and stabilizing devices
- Part 4: Safety, maintenance and inspection of arc welding equipment in use <sup>1</sup>
- Part 5: Wire feeders
- Part 6: Limited duty manual metal arc welding power sources
- Part 7: Torches
- Part 8: Gas consoles for welding and plasma cutting systems
- Part 10: Electromagnetic compatibility (EMC) requirements
- Part 11: Electrode holders
- Part 12: Coupling devices for welding cables

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

**ForewordDV.1 Modify the foreword by adding the following:**

**The numbering system in this standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.**

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<sup>1</sup> Under consideration.

## ARC WELDING EQUIPMENT –

### Part 12: Coupling devices for welding cables

GlobalDV.1 Throughout this document, replace the phrase "this part of IEC 60974" with "this part of ANSI/IEC 60974"

#### 1 Scope

This part of IEC 60974 is applicable to coupling devices for cables for welding and allied processes designed for connection and disconnection without using tools.

This part of IEC 60974 specifies safety and performance requirements of coupling devices.

This part of IEC 60974 is not applicable to coupling devices for underwater welding.