

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Arc welding equipment –
Part 10: Electromagnetic compatibility (EMC) requirements**

**Matériel de soudage à l'arc –
Partie 10: Exigences de compatibilité électromagnétique (CEM)**



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ARC WELDING EQUIPMENT –

Part 10: Electromagnetic compatibility (EMC) requirements

FOREWORD

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International Standard IEC 60974-10 has been prepared by IEC technical committee 26: Electric welding.

This fourth edition cancels and replaces the third edition published in 2014 and its Amendment 1:2015. This edition constitutes a technical revision.

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

- a) updated normative references;
- b) requirements for battery powered equipment;
- c) requirements for equipment combined with radio transmitters/receivers.

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

FDIS	Report on voting
26/695/FDIS	26/697/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.

A list of all parts in the IEC 60974 series, published 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- withdrawn,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
- amended.

ARC WELDING EQUIPMENT –

Part 10: Electromagnetic compatibility (EMC) requirements

1 Scope

This part of IEC 60974 is applicable to equipment for arc welding and allied processes, including power sources and ancillary equipment, for example wire feeders, liquid cooling systems, arc striking and stabilizing devices and chargers for battery powered equipment.

NOTE 1 Allied processes are, for example, plasma cutting and arc stud welding.

NOTE 2 This document does not specify basic safety requirements for arc welding equipment such as protection against electric shock, unsafe operation, insulation coordination and related dielectric tests.

Arc welding equipment containing a radio receiver or transmitter is within the scope of this document.

The radiated emission requirements in this document are not intended to be applicable to the intentional transmissions from a radio transmitter as defined by the ITU nor to any spurious emissions related to these intentional transmitters.

This document specifies

- a) applicable standards and test methods for radio frequency (RF) emissions;
- b) applicable standards and test methods for harmonic current emission, voltage fluctuations and flicker;
- c) immunity requirements and test methods for continuous and transient, conducted and radiated disturbances including electrostatic discharges;
- d) additional requirements for equipment powered by internal or external batteries (Annex D);
- e) additional requirements for equipment containing radio frequency transmitters/receivers (Annex E).

Arc welding equipment type tested in accordance with, and which has met the requirements set in, this document is considered to be in compliance for all applications.

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

IEC 61000-3-2:2018, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)*