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**Arc welding equipment –
Part 9: Installation and use**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	6
4 Installation.....	8
4.1 General.....	8
4.2 Supply circuit.....	9
4.2.1 Selection of supply cables.....	9
4.2.2 Supply disconnecting device.....	9
4.2.3 Emergency stopping device.....	9
4.3 Welding circuit.....	9
4.3.1 Isolation from the input supply.....	9
4.3.2 Summation of no-load voltages.....	9
4.3.3 Welding cables.....	9
4.3.4 Connection between the welding power source and the workpiece.....	10
4.3.5 Earthing of the workpiece.....	11
4.3.6 Location of gas cylinders.....	12
5 Electromagnetic compatibility (EMC).....	12
5.1 General.....	12
5.2 Assessment of area.....	12
5.3 Methods of reducing emissions.....	12
5.3.1 Public supply system.....	12
5.3.2 Maintenance of arc-welding equipment.....	12
5.3.3 Welding cables.....	13
5.3.4 Equipotential bonding.....	13
5.3.5 Earthing of the workpiece.....	13
5.3.6 Screening and shielding.....	13
6 Electromagnetic fields (EMF).....	13
6.1 General.....	13
6.2 Assessment of exposure.....	14
7 Use.....	14
7.1 General requirements.....	14
7.2 Connection between several welding power sources.....	14
7.3 Inspection and maintenance of the welding installation.....	14
7.3.1 Periodical inspection.....	14
7.3.2 Routine inspection.....	15
7.4 Disconnection of welding power sources and/or welding circuits.....	15
7.5 Guards.....	15
7.6 Information for operators.....	15
7.7 Protective measures.....	15
7.7.1 Extraneous conductive parts in the welding area.....	15
7.7.2 Protection against electric shock.....	15
7.8 Isolation of the welding circuit from the workpiece and earth when not in use.....	16
7.9 Voltage between electrode holders or torches.....	16

7.10	Welding in an environment with increased hazard risk of electric shock	18
7.11	Use of shoulder slings	18
7.12	Welding at elevated positions	19
7.13	Welding with suspended welding equipment	19
8	Battery-powered welding power sources	19
8.1	Safety recommendations	19
8.2	Transportation	19
Annex A	(informative) Hazards associated with arc welding	20
A.1	General	20
A.2	Equipment condition and maintenance	20
A.3	Operation	20
A.4	Training	20
A.5	Arc radiation	20
A.5.1	General	20
A.5.2	Eye and face protection (see also A.9)	21
A.5.3	Body protection (see also A.9)	21
A.5.4	Protection of persons in the vicinity of an arc	21
A.6	EMF	21
A.6.1	General	21
A.6.2	Body protection	21
A.6.3	Protection of persons in the vicinity of the welding operation	21
A.7	Welding fume	21
A.8	Noise	22
A.9	Fire and explosion	24
A.9.1	General	24
A.9.2	Fire	24
A.9.3	Explosion	24
A.10	General protective clothing	24
A.11	Confined spaces	24
Annex B	(informative) Voltage drops in the welding circuit	26
Bibliography	28
Figure 1	– Example of DC voltage between electrode holders or torches	17
Figure 2	– Example of AC voltage between electrode holders or torches – Single-phase supply from the same pair of lines of a three-phase mains supply	17
Figure 3	– Example of AC voltage between electrode holders or torches – Single-phase supply from different pairs of lines of a three-phase mains supply	17
Figure 4	– Example of AC voltage between electrode holders connected between different lines of output	18
Figure A.1	– Steps for the control of welding fumes	23
Figure A.2	– Example steps of operation for work in confined spaces	25
Figure B.1	– Example of MIG/MAG equipment	26
Table 1	– Current ratings for copper welding cables	10
Table B.1	– Voltage drop in copper and aluminium welding cables at normal and elevated temperatures	27

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT –

Part 9: Installation and use

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.
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International Standard IEC 60974-9 has been prepared by IEC technical committee 26: Electric welding.

This standard cancels and replaces the first edition published in 2010. This edition constitutes a technical revision.

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

- a) addition of a new Clause 8;
- b) addition of interpolation details in Table 1.

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

FDIS	Report on voting
26/648/FDIS	26/649/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.

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- terms defined in Clause 3: in **bold** type.

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

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ARC WELDING EQUIPMENT –

Part 9: Installation and use

1 Scope

This document is applicable to requirements for installation and instructions for use of equipment for arc welding and allied processes designed in accordance with safety requirements of IEC 60974-1, IEC 60974-6 or equivalent.

This document is applicable for the guidance of instructors, operators, welders, managers, and supervisors in the safe installation and use of equipment for arc welding and allied processes and the safe performance of welding and cutting operations.

National and local regulations take precedence over this document.

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 60245-6, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 6: Arc welding electrode cables*

IEC/TR 60755, *General requirements for residual current operated protective devices*

IEC 60974-1:2005, *Arc welding equipment – Part 1: Welding power sources*

IEC 60974-4, *Arc welding equipment – Part 4: In-service Periodic inspection and testing*

~~IEC 60974-6, *Arc welding equipment – Part 6: Limited duty manual metal arc welding power sources*~~

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

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

IEC 60974-12, *Arc welding equipment – Part 12: Coupling devices for welding cables*

IEC 60974-13, *Arc welding equipment – Part 13: Welding clamp*

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Arc welding equipment –
Part 9: Installation and use**

**Matériel de soudage à l'arc –
Partie 9: Installation et utilisation**



CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	6
4 Installation.....	8
4.1 General.....	8
4.2 Supply circuit.....	8
4.2.1 Selection of supply cables.....	8
4.2.2 Supply disconnecting device.....	8
4.2.3 Emergency stopping device.....	9
4.3 Welding circuit.....	9
4.3.1 Isolation from the input supply.....	9
4.3.2 Summation of no-load voltages.....	9
4.3.3 Welding cables.....	9
4.3.4 Connection between the welding power source and the workpiece.....	10
4.3.5 Earthing of the workpiece.....	11
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5 Electromagnetic compatibility (EMC).....	12
5.1 General.....	12
5.2 Assessment of area.....	12
5.3 Methods of reducing emissions.....	12
5.3.1 Public supply system.....	12
5.3.2 Maintenance of arc-welding equipment.....	12
5.3.3 Welding cables.....	13
5.3.4 Equipotential bonding.....	13
5.3.5 Earthing of the workpiece.....	13
5.3.6 Screening and shielding.....	13
6 Electromagnetic fields (EMF).....	13
6.1 General.....	13
6.2 Assessment of exposure.....	14
7 Use.....	14
7.1 General requirements.....	14
7.2 Connection between several welding power sources.....	14
7.3 Inspection and maintenance of the welding installation.....	14
7.3.1 Periodical inspection.....	14
7.3.2 Routine inspection.....	15
7.4 Disconnection of welding power sources and/or welding circuits.....	15
7.5 Guards.....	15
7.6 Information for operators.....	15
7.7 Protective measures.....	15
7.7.1 Extraneous conductive parts in the welding area.....	15
7.7.2 Protection against electric shock.....	15
7.8 Isolation of the welding circuit from the workpiece and earth when not in use.....	16
7.9 Voltage between electrode holders or torches.....	16

7.10	Welding in an environment with increased risk of electric shock.....	18
7.11	Use of shoulder slings.....	18
7.12	Welding at elevated positions.....	19
7.13	Welding with suspended welding equipment.....	19
8	Battery-powered welding power sources.....	19
8.1	Safety recommendations.....	19
8.2	Transportation.....	19
Annex A	(informative) Hazards associated with arc welding.....	20
A.1	General.....	20
A.2	Equipment condition and maintenance.....	20
A.3	Operation.....	20
A.4	Training.....	20
A.5	Arc radiation.....	20
A.5.1	General.....	20
A.5.2	Eye and face protection (see also A.9).....	21
A.5.3	Body protection (see also A.9).....	21
A.5.4	Protection of persons in the vicinity of an arc.....	21
A.6	EMF.....	21
A.6.1	General.....	21
A.6.2	Body protection.....	21
A.6.3	Protection of persons in the vicinity of the welding operation.....	21
A.7	Welding fume.....	21
A.8	Noise.....	22
A.9	Fire and explosion.....	24
A.9.1	General.....	24
A.9.2	Fire.....	24
A.9.3	Explosion.....	24
A.10	General protective clothing.....	24
A.11	Confined spaces.....	24
Annex B	(informative) Voltage drops in the welding circuit.....	26
Bibliography	28
Figure 1	– Example of DC voltage between electrode holders or torches.....	17
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Figure 3	– Example of AC voltage between electrode holders or torches – Single-phase supply from different pairs of lines of a three-phase mains supply.....	17
Figure 4	– Example of AC voltage between electrode holders connected between different lines of output.....	18
Figure A.1	– Steps for the control of welding fumes.....	23
Figure A.2	– Example steps of operation for work in confined spaces.....	25
Figure B.1	– Example of MIG/MAG equipment.....	26
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IEC 60974-4, *Arc welding equipment – Part 4: Periodic inspection and testing*

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

IEC 60974-12, *Arc welding equipment – Part 12: Coupling devices for welding cables*

IEC 60974-13, *Arc welding equipment – Part 13: Welding clamp*

SOMMAIRE

AVANT-PROPOS	33
1 Domaine d'application	35
2 Références normatives	35
3 Termes et définitions	35
4 Installation.....	37
4.1 Généralités	37
4.2 Circuit d'alimentation	37
4.2.1 Sélection des câbles d'alimentation	37
4.2.2 Dispositif de déconnexion de l'alimentation.....	38
4.2.3 Dispositif d'arrêt d'urgence	38
4.3 Circuit de soudage	38
4.3.1 Isolation par rapport à l'alimentation	38
4.3.2 Somme des tensions à vide	38
4.3.3 Câbles de soudage	38
4.3.4 Connexion entre la source de courant de soudage et la pièce mise en œuvre	39
4.3.5 Mise à la terre de la pièce mise en œuvre	40
4.3.6 Emplacement des bouteilles de gaz	41
5 Compatibilité électromagnétique (CEM).....	41
5.1 Généralités	41
5.2 Évaluation de l'emplacement	41
5.3 Méthodes de réduction des émissions.....	41
5.3.1 Réseau public d'alimentation	41
5.3.2 Maintenance du matériel de soudage à l'arc	41
5.3.3 Câbles de soudage	42
5.3.4 Liaison équipotentielle	42
5.3.5 Mise à la terre de la pièce mise en œuvre	42
5.3.6 Blindage et protection	42
6 Champs électromagnétiques (EMF)	42
6.1 Généralités	42
6.2 Évaluation de l'exposition	43
7 Utilisation	43
7.1 Exigences générales.....	43
7.2 Connexions entre plusieurs sources de courant de soudage	43
7.3 Examen et maintenance de l'installation de soudage	43
7.3.1 Examen périodique	43
7.3.2 Examen quotidien	44
7.4 Déconnexion des sources de courant de soudage et/ou des circuits de soudage.....	44
7.5 Dispositifs de protection.....	44
7.6 Information pour les opérateurs	44
7.7 Mesures de protection	44
7.7.1 Éléments conducteurs étrangers dans la zone de soudage	44
7.7.2 Protection contre les chocs électriques.....	45
7.8 Isolation du circuit de soudage de la pièce mise en œuvre et de la terre lorsqu'il n'est pas utilisé	45

7.9	Tension entre les porte-électrodes ou les torches	45
7.10	Soudage dans un environnement avec risque accru de choc électrique	47
7.11	Usage de bandoulières	48
7.12	Soudage en positions élevées.....	48
7.13	Soudage avec du matériel de soudage suspendu.....	48
8	Sources de courant de soudage alimentées par batteries	48
8.1	Recommandations de sécurité	48
8.2	Transport	48
Annexe A	(informative) Dangers associés au soudage à l'arc	49
A.1	Généralités	49
A.2	Maintenance du matériel et conditions de fonctionnement.....	49
A.3	Fonctionnement	49
A.4	Formation	49
A.5	Rayonnement de l'arc	49
A.5.1	Généralités	49
A.5.2	Protection des yeux et du visage (voir aussi A.9).....	49
A.5.3	Protection du corps (voir aussi A.9)	50
A.5.4	Protection des personnes au voisinage d'un arc	50
A.6	EMF.....	50
A.6.1	Généralités	50
A.6.2	Protection du corps.....	50
A.6.3	Protection des personnes au voisinage d'une opération de soudage.....	50
A.7	Vapeurs de soudage	50
A.8	Bruit.....	51
A.9	Incendie et explosion	53
A.9.1	Généralités	53
A.9.2	Incendie	53
A.9.3	Explosion.....	53
A.10	Vêtements standard de protection.....	53
A.11	Espaces confinés.....	53
Annexe B	(informative) Chutes de tension dans le circuit de soudage.....	55
Bibliographie	57
Figure 1	– Exemple de tension continue entre porte-électrodes ou torches	46
Figure 2	– Exemple de tension alternative entre porte-électrodes ou torches – Alimentation monophasée provenant de la même paire de phases d'un réseau d'alimentation triphasé	46
Figure 3	– Exemple de tension alternative entre porte-électrodes ou torches – Alimentation monophasée provenant de différentes paires de phases d'un réseau d'alimentation triphasé.....	46
Figure 4	– Exemple de tension alternative entre porte-électrodes reliés entre différentes phases de sortie	47
Figure A.1	– Procédures pour le contrôle des vapeurs de soudage	52
Figure A.2	– Exemple de procédures à suivre pour travaux en espaces confinés	54
Figure B.1	– Exemple de matériel MIG/MAG	55
Tableau 1	– Caractéristiques assignées de courant pour les câbles de soudage en cuivre.....	39

Tableau B.1 – Chute de tension dans des câbles de soudage en cuivre et en aluminium à des températures normales et élevées 56

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

MATÉRIEL DE SOUDAGE À L'ARC –

Partie 9: Installation et utilisation

AVANT-PROPOS

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La norme internationale IEC 60974-9 a été établie par le Comité d'études 26 de l'IEC: Soudage électrique.

La présente norme annule et remplace la première édition parue en 2010. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) ajout d'un nouvel Article 8;
- b) ajout de détails relatifs à l'interpolation au Tableau 1.

Le texte de cette Norme internationale est issu des documents suivants:

FDIS	Rapport de vote
26/648/FDIS	26/649/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Dans la présente norme, les caractères d'imprimerie suivants sont utilisés:

- les termes définis à l'Article 3: en caractère **gras**.

Une liste de toutes les parties de la série IEC 60974, sous le titre général *Matériel de soudage à l'arc*, peut être consultée sur le site internet de l'IEC.

Le comité a décidé que le contenu de ce document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous "<http://webstore.iec.ch>" dans les données relatives au document recherché. À cette date, le document sera

- reconduit,
- supprimé,
- remplacé par une édition révisée, ou
- amendé.

MATÉRIEL DE SOUDAGE À L'ARC –

Partie 9: Installation et utilisation

1 Domaine d'application

Le présent document est applicable aux exigences relatives à l'installation et aux instructions d'utilisation du matériel pour le soudage à l'arc et les procédés connexes conçus dans le respect des exigences de sécurité de l'IEC 60974-1, de l'IEC 60974-6 ou équivalent.

Le présent document est applicable aux recommandations destinées aux instructeurs, aux opérateurs, aux soudeurs, aux gestionnaires et aux superviseurs pour obtenir une installation et une utilisation sûres du matériel pour le soudage à l'arc et les techniques connexes et obtenir des performances sûres dans les opérations de soudage et de coupage.

Les réglementations nationales et locales prévalent sur le présent document.

2 Références normatives

Les documents suivants cités dans le texte constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60245-6, *Conducteurs et câbles isolés au caoutchouc – Tension assignée au plus égale à 450/750 V – Partie 6: Câbles souples pour électrodes de soudage à l'arc*

IEC 60755, *General requirements for residual current operated protective devices* (disponible en anglais seulement)

IEC 60974-1, *Matériel de soudage à l'arc – Partie 1: Sources de courant de soudage*

IEC 60974-4, *Matériel de soudage à l'arc – Partie 4: Inspection et essais périodiques*

IEC 60974-11, *Matériel de soudage à l'arc – Partie 11: Porte-électrodes*

IEC 60974-12, *Matériel de soudage à l'arc – Partie 12: Dispositifs de connexion pour câbles de soudage*

IEC 60974-13, *Matériel de soudage à l'arc – Partie 13: Pince de retour de courant*