NATIONAL STANDARD OF CANADA
NORME NATIONALE DU CANADA

CAN/ULC-60903-15
(IEC 60903:2014 MOD)

La norme internationale **IEC 60903:2014, (troisième édition, 2014-07),** a été adoptée avec les exigences propres au Canada (MOD), et porte la désignation **CAN/ULC-60903-15** la troisième edition. Elle a été approuvée comme Norme nationale du Canada par le Conseil canadien des normes.

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Travaux sous tension – Gants isolants électriques

ICS 13.260, 29.240.20, 29.260.99

Live working – Electrical insulating gloves

ICS 13.260, 29.240.20, 29.260.99

Numéro de référence
Reference Number
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Commission Electrotechnique Internationale
International Electrotechnical Commission

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NORME NATIONALE DU CANADA

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Travaux sous tension – Gants isolants électriques

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Live working – Electrical insulating gloves

ICS 13.260, 29.240.20, 29.260.99

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This list represents the membership at the time the Committee balloted on the final text of this edition. Since that time, changes in the membership may have occurred.

CAN/ULC-60903-15
(IEC 60903:2014, MOD)

Travaux sous tension – Gants isolants électriques

PRÉFACE NORMES ULC

Ce document constitue la troisième édition de la norme, CAN/ULC-60903-15 (IEC 60903 :2014, MOD), Travaux sous tension – Gants isolants électriques, laquelle constitue une adoption, avec les exigences propres au Canada, de la norme internationale de la Commission Électrotechnique Internationale, IEC 60903 (troisième édition, 2014-07).

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Cette troisième édition de la norme nationale du Canada remplace désormais la deuxième édition.

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La présente norme est destinée à être utilisée à des fins d'évaluation de la conformité.

Une grande partie du financement nécessaire au processus d’adoption de cette Norme nationale du Canada a été assurée par l’association canadienne de l’électricité (ACE) que nous tenons à remercier.

Juin 2015

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CAN/ULC-60903-15
(IEC 60903:2014, MOD)

Live working – Electrical insulating gloves

ULC STANDARDS PREFACE

This is the Third Edition of the Standard CAN/ULC-60903-15 (IEC 60903:2014, MOD), Live working – Electrical insulating gloves, with Canadian Deviations, of the international standard by International Electrotechnical Commission, IEC 60903:2014 (Third Edition, 2014-07).

In Canada there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

The requirements of the Third Edition of this National Standard now supersede the Second Edition.

Attention is drawn to the possibility that some of the elements of this Canadian standard may be the subject of patent rights. ULC Standards shall not be held responsible for identifying any or all such patent rights.

The initiation of the review of this Standard will commence within 5 years of the date of publication, unless the Standard is identified as fitting within a stabilized category, whereby the review will commence within the appropriate time frame set out by ULC Standards

This Standard is intended to be used for conformity assessment.

Major funding in support of the adoption process of this National Standard of Canada was provided by the Canadian Electricity Association (CEA), whose assistance is acknowledged with thanks.

June 2015

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Exigences propres au Canada

GÉNÉRALITÉS

[Remplacez tous les références «IEC 61318» dans le document avec « CAN/ULC-61318 »]

[Remplacez tous les références «IEC 61477» dans le document avec « CAN/ULC-61477 »]

2 RÉFÉRENCES NORMATIVES

[Reviser les références IEC 61318 et IEC 61477 comme suit:

« CAN/ULC-61318-08, Travaux sous tension – Évaluation de la conformité applicable à l'outillage, au matériel et aux dispotifs (CEI/IEC 61318:2007, IDT)»

« CAN/ULC-61477-11, Travuax sous tension – Exigences minimales pour l'utilisation des outils, dispotifs et équipments (CEI/IEC 61477:2009, MOD)»]

4.6 MARQUAGE

[Supprimer la premiere point avec tiret relatif au « - symbole IEC 60417-5216:2002-10…» et la REMARQUE connexe]

[Réviser le deuxième point avec tiret comme suit :]
« –numéro de la norme CAN/ULC applicable (CAN/ULC-60903). »]

[Réviser le deuxième paragraphe «Les gants composites doivent aussi être identifiés…» pour indiquer ce qui suit :

«Les gants composites doivent être identifiés avec symbole mécanique (marteau) (voir Figure 3). »]

ANNEXE A

[Ajouter un nouveau paragraphe à A.6 comme suit :

« Pour les gants de la catégorie 4 seulement, la valeur efficace de l'essai de surcharge du contre-essai électrique peut être révisée pour passer de la valeur indiquée au tableau 6 à une valeur efficace réduite déterminée à l'aide de la formule suivante :

Tension d'essai de surcharge minimale = tension nominale maximale + 2 000 V + (0,05 x tension d'essai de surcharge maximale)[1]

p. ex. tension d'essai de surcharge minimale = 26 500 V + 2 000 V + (0,05 x 40 000 V) = 30 500 V rms

Si un gant de catégorie 4 est vérifié à une tension d'essai de surcharge inférieure à celle indiquée au tableau 6, il doit être marqué de façon durable (voir 5.3.2) à côté de la désignation de catégorie du fabricant ou de la tension d'utilisation maximale avec la nouvelle tension nominale maximale désignée de l'utilisateur (tension d'utilisation maximale).

[1] ASTM D120-14, Standard Specification for Rubber Insulating Gloves »

ANNEXE B

[Supprimer l'annexe B.]

Canadian Deviations

GENERAL

[Change all “IEC 61318” references in the document to read “CAN/ULC-61318”]

[Change all “IEC 61477” references in the document to read “CAN/ULC-61477”]

2 NORMATIVE REFERENCES

[Revise IEC 61318 and IEC 61477 to read:

“CAN/ULC-61318-08, Live Working – Conformity assessment applicable to tools, devices and equipment (CEI/IEC 61318:2007, IDT)”

“CAN/ULC-61477-11, Live Working – Minimum requirements for the utilizations of tools, devices and equipment (CEI/IEC 61477:2009, MOD)”]

4.6 MARKING

[Delete the first dash item regarding “- symbol IEC 60417-5216:2002-10…” and accompanying NOTE]

[Revise the second dash item to state:
“– number of the relevant CAN/ULC standard (CAN/ULC-60903).”]

[Revise the second paragraph regarding “composite gloves shall also be identified…” to state: “composite gloves shall also be identified with a mechanical symbol (hammer) (see Figure 3)”.]

ANNEX A

[Add new paragraph to A.6 to read:

“For class 4 gloves only, the electrical re-testing proof test rms value can be revised from that specified in Table 6 to a reduced rms value as determined by the following formula:

Minimum proof test voltage = Maximum nominal voltage + 2 000 V + (0.05 x Maximum Proof Test Voltage)[1]

e.g., Minimum proof test voltage = 26 500 V + 2 000 V + (0.05 x 40 000 V) = 30 500 V rms

If a class 4 glove is tested at a proof test voltage less than that specified in Table 6, it shall be durably marked (see 5.3.2) adjacent to the manufacturer’s class designation or maximum use voltage indication with the user’s new designated maximum nominal voltage (maximum use voltage).

[1] ASTM D120-14, Standard Specification for Rubber Insulating Gloves”]

ANNEX B

[Delete Annex B]

IEC 60903

Edition 3.0 2014-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Electrical insulating gloves

Travaux sous tension – Gants isolants électriques



IEC 60903:2014-07(en-fr)



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Electrical insulating gloves

Travaux sous tension – Gants isolants électriques

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LIVE WORKING – ELECTRICAL INSULATING GLOVES

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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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 60903 has been prepared by IEC technical committee 78: Live working.

This third edition cancels and replaces the second edition of IEC 60903, published in 2002. It constitutes a technical revision.

The major changes are:

– clarification of the requirements and tests for *long gloves*;
– introduction of a new special property for gloves resistant to leakage current;
– removal of the requirement for an area to mark the date of inspection;
– for the thickness measurement, no other instrument than the micrometer with specified parameters is allowed;
– the d.c. electric tests are no longer included in the normative part of the document but a proof test is suggested at the production level where a d.c. use of gloves is expected, as presented in a new informative Annex E;

– preparation of the elements of evaluation of defects, and general application of IEC 61318:2007;

– the normative Annex C on sampling plans and procedure has been deleted (not applicable according to IEC 61318:2007);

– in the new normative Annex F, updating of the characteristics of the liquid specified for tests on gloves of category H, according to the latest edition of ISO 1817;

– the informative Annex H on acceptance tests has been deleted (consideration now included in IEC 61318:2007);

– introduction of a new normative Annex H on classification of defects;

– introduction of a new informative Annex I on the rationale for the classification of defects;

– review of the annex on in-service recommendations.

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

FDIS	Report on voting
78/1043/FDIS	78/1056/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.

Terms defined in Clause 3 are given in italic print throughout this standard.

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.

INTRODUCTION

In this document, the clauses on requirements and testing are reorganized in order to bring together the common requirements and tests, then to lay down separately those which are specific to insulating gloves for electrical protection normally worn under leather protector gloves as opposed to those specific to insulating gloves for combined electrical and mechanical protection. This arrangement meets the basic necessity that a same quality level of electrical insulation is achieved for all types of *electrical insulating gloves*.

This document has been prepared according to the requirements of IEC 61477 where applicable.

The product covered by this standard may have an impact on the environment during some or all stages of its life cycle. These impacts can range from slight to significant, be of short-term or long-term, and occur at the global, regional or local level.

Except for a disposal statement in the Instructions for use, this standard does not include requirements and test provisions for the manufacturers of the product, or recommendations to the users of the product for environmental improvement. However, all parties intervening in its design, manufacture, packaging, distribution, use, maintenance, repair, reuse, recovery and disposal are invited to take account of environmental considerations.

LIVE WORKING – ELECTRICAL INSULATING GLOVES

1 Scope

This International Standard is applicable to *electrical insulating gloves* and *mitts* that provide protection of the worker against electric shock.

Unless otherwise stated, the use of the term “glove” includes both gloves and *mitts*.

This standard also covers *electrical insulating gloves* with additional integrated mechanical protection referred to in this document as “*composite gloves*”.

The products designed and manufactured according to this standard contribute to the safety of the users provided they are used by skilled persons, in accordance with safe methods of work and the instructions for use.

NOTE Insulating gloves are normally to be used in conjunction with leather protector gloves to provide mechanical protection. *Composite insulating gloves* are normally used without over-gloves.

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 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60060-2, *High-voltage test techniques – Part 2: Measuring systems*

IEC 60212, *Standard conditions for use prior to and during the testing of solid electrical insulating materials*

IEC 60417, *Graphical symbols for use on equipment*

IEC 61318:2007, *Live working – Conformity assessment applicable to tools, devices and equipment*

IEC 61477, *Live working – Minimum requirements for the utilization of tools, devices and equipment*

ISO 23529, *Rubber – General procedures for preparing and conditioning test pieces for physical test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61318 as well as the following apply.