NATIONAL STANDARD OF CANADA
NORME NATIONALE DU CANADA

CAN/ULC-61243-3-15
(IEC 61243-3:2014 MOD)

La norme internationale **IEC 61243-3:2014, (troisième édition, 2014-10), inclusive de corrigenda 1 (janvier 2015) et 2 (mai 2015),** a été adoptée avec les exigences propres au Canada (MOD), et porte la désignation **CAN/ULC-61243-3-15** la troisième édition. Elle a été approuvée comme Norme nationale du Canada par le Conseil canadien des normes.

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Travaux sous tension – Détecteurs de tension – Partie 3: Type bipolaire basse tension

ICS 13.260, 29.240.20, 29.260.99

Live working - Voltage detectors - Part 3: Two-pole low-voltage type

ICS 13.260, 29.240.20, 29.260.99

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IEC 61243-3:2014

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International Electrotechnical Commission

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Le but premier visé par cette norme est énoncé au paragraphe qui en définit le domaine d'application. Il importe de préciser qu'il incombe à l'utilisateur de décider si la norme convient à ses besoins particuliers.

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NORME NATIONALE DU CANADA

CAN/ULC-61243-3-15
(IEC 61243-3:2014, MOD)

Travaux sous tension – Détecteurs de tension – Partie 3: Type bipolaire basse tension

ICS 13.260, 29.240.20, 29.260.99

NATIONAL STANDARD OF CANADA

CAN/ULC-61243-3-15
(IEC 61243-3:2014, MOD)

Live working - Voltage detectors - Part 3: Two-pole low-voltage type

ICS 13.260, 29.240.20, 29.260.99

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International Electrotechnical Commission
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CAN/ULC-61243-3-15
(IEC 61243-3:2014, MOD)

Travaux sous tension – Détecteurs de tension – Partie 3: Type bipolaire basse tension

PRÉFACE NORMES ULC

Ce document constitue la troisième édition de la norme, CAN/ULC-61243-3-15 (IEC 61243-3:2014, MOD), Travaux sous tension – Détecteurs de tension – Partie 3: Type bipolaire basse tension, laquelle constitue une adoption, avec les exigences propres au Canada, de la norme internationale de la Commission Électrotechnique Internationale, IEC 61243-3 (troisième édition, 2014-10).

Au Canada, il y a deux langues officielles, le français et l'anglais. Tous les avertissements de sécurité doivent être en français et en anglais. Il importe de signaler que certaines autorités canadiennes peuvent exiger que des marquages et/ou des directives d'installation supplémentaires soient dans les deux langues officielles.

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-61243-3-15
(IEC 61243-3:2014, MOD)

Live working - Voltage detectors - Part 3: Two-pole low-voltage type

ULC STANDARDS PREFACE

This is the Third Edition of the Standard CAN/ULC-61243-3-15 (IEC 61243-3:2014, MOD), Live working - Voltage detectors - Part 3: Two-pole low-voltage type, with Canadian Deviations, of the international standard by International Electrotechnical Commission, IEC 61243-3:2014 (Third Edition, 2014-10).

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 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)»]

4.5 MARQUAGE

4.5.2 Marquage sur l'indicateur

[Réviser la deuxième point avec tiret comme suit :
« –numéro de la norme CAN/ULC applicable (CAN/ULC-61243-3). »]

[Réviser la dernier paragraphe avec tiret comme suit :

«Le fabricant doit fournir les informations relatives au numéro de la norme CAN/ULC avec l'année de publication avec chaque *détecteur de tension* ou chaque lot de détecteurs de tension. »]

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)”]

4.5 MARKING

4.5.2 Marking on the indicator

[Revise the second dash item to state:
“– number of the relevant CAN/ULC standard (CAN/ULC-61243-3).”]

[Amend the final paragraph to reference CAN/ULC Standard:

“With every voltage detector or with every batch of voltage detectors to be delivered, the manufacturer shall provide information related to the number of the CAN/ULC standard.”]

ANNEX B

[Delete Annex B]

IEC 61243-3

Edition 3.0 2014-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Voltage detectors – Part 3: Two-pole low-voltage type

Travaux sous tension – Détecteurs de tension – Partie 3: Type bipolaire basse tension



IEC 61243-3:2014-10(en-fr)



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IEC 61243-3

Edition 3.0 2014-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Voltage detectors – Part 3: Two-pole low-voltage type

Travaux sous tension – Détecteurs de tension – Partie 3: Type bipolaire basse tension

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LIVE WORKING – VOLTAGE DETECTORS –

Part 3: Two-pole low-voltage type

FOREWORD

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International Standard IEC 61243-3 has been prepared by IEC technical committee 78: Live working.

This third edition cancels and replaces the second edition published in 2009. It is a technical revision.

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

– requirement and test to manage *interference voltages* at power frequencies;
– informative annex on *voltage detectors* and the presence of *interference voltages*.

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

FDIS	Report on voting
78/1054/FDIS	78/1090/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.

A list of all parts of the IEC 61243 series can be found, under the general title *Live working – Voltage detectors*, 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

The contents of the corrigendum of January 2015 have been included in this copy.

IMPORTANT – The "colour inside" logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

INTRODUCTION

The devices covered by this standard are designed to be used in a live working environment to determine the status (presence or absence of operating voltage) of low-voltage installations.

The live working environment comes with its specific hazards and working conditions, which are generally more severe than the ones encountered by workers in other fields than live working.

This International Standard is a product standard giving essential requirements and tests to verify that the devices perform well and will contribute to the safety of the users, provided they are used by skilled persons, and according to safe working procedures and to local or national regulations.

Voltage detectors are not considered as measuring or testing devices, separately covered by IEC 61010 series. However, in case of misuse by general electrical workers, the requirements and tests included in this document are intended to achieve an equivalent level of safety.

To take into consideration the specific needs of a live working environment, the following differences exist with IEC 61010 series:

– some requirements and tests exist in both standards but with different sanctions or pass test criteria (see A.1);
– some requirements of IEC 61010 are not included in this standard (see A.2, with rationale);
– some additional requirements of this standard are not specified in IEC 61010 with the rationale (see A.3).

This International Standard 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 effect, and occur at the global, regional or local level.

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 – VOLTAGE DETECTORS –

Part 3: Two-pole low-voltage type

1 Scope

This part of IEC 61243 is applicable to hand-held *two-pole voltage detector*s with their accessories (crocodile clips and detachable *lead*s) to be used in contact with parts of electrical systems:

– for a.c. voltages not exceeding 1 000 V at nominal frequencies between 16 2/3 Hz and up to 500 Hz,

and/or

– for d.c. voltages not exceeding 1 500 V.

NOTE The a.c. voltages defined in this standard refer either to phase-to-phase voltages or phase to neutral voltages.

Contact electrode extensions are not covered by this standard.

Voltage detectors covered by this standard are intended to be used under dry and humid conditions, both indoor and outdoor. They are not intended to be used under rain conditions.

Voltage detectors covered by this standard are not intended to be used for continuous operation.

Voltage detectors covered by this standard are intended to be used up to 2 000 m above sea level.

This standard also includes provisions for the following supplementary functions when available (see Annex B):

– phase indication,
– rotating field indication, and
– continuity check.

Other supplementary functions are not covered by this standard.

Voltage detectors covered by this standard are not considered as measuring devices. Relevant safety requirements for measuring devices are included in IEC 61010 series.

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 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*