

Live working - Minimum approach distances - Part 2:  
Method of determination of the electrical component  
distance for AC systems from 1,0 kV to 72,5 kV

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 61472-2:2021 sisaldab Euroopa standardi EN IEC 61472-2:2021 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 61472-2:2021 consists of the English text of the European standard EN IEC 61472-2:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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EUROPEAN STANDARD

**EN IEC 61472-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2021

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English Version

**Live working - Minimum approach distances - Part 2: Method of  
determination of the electrical component distance for AC  
systems from 1,0 kV to 72,5 kV  
(IEC 61472-2:2021)**

Travaux sous tension - Distances minimales d'approche -  
Partie 2: Méthode de détermination de la distance du  
composant électrique pour les réseaux en courant alternatif  
de tension comprise entre 1,0 kV et 72,5 kV  
(IEC 61472-2:2021)

Arbeiten unter Spannung - Mindestarbeitsabstände - Teil 2:  
Berechnungsverfahren für Abstände in  
Wechselspannungsnetzen größer 1,0 kV bis 72,5 kV  
(IEC 61472-2:2021)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## European foreword

The text of document 78/1319/FDIS, future edition 1 of IEC 61472-2, prepared by IEC/TC 78 "Live working" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61472-2:2021.

The following dates are fixed:

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IEC 60038:2009	NOTE	Harmonized as EN 60038:2011
IEC 60060-1:2010	NOTE	Harmonized as EN 60060-1:2010 (not modified)
IEC 60071-1:2019	NOTE	Harmonized as EN IEC 60071-1:2019 (not modified)
IEC 60071-2:2018	NOTE	Harmonized as EN IEC 60071-2:2018 (not modified)
IEC 61472:2013	NOTE	Harmonized as EN 61472:2013 (not modified)
IEC 61477:2009	NOTE	Harmonized as EN 61477:2009 (not modified)

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Live working – Minimum approach distances –  
Part 2: Method of determination of the electrical component distance for AC  
systems from 1,0 kV to 72,5 kV**

**Travaux sous tension – Distances minimales d’approche –  
Partie 2: Méthode de détermination de la distance du composant électrique pour  
les réseaux en courant alternatif de tension comprise entre 1,0 kV et 72,5 kV**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**LIVE WORKING –  
MINIMUM APPROACH DISTANCES –**
**Part 2: Method of determination of the electrical component  
distance for AC systems from 1,0 kV to 72,5 kV**

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International Standard IEC 61472-2 has been prepared by IEC technical committee technical committee 78: Live working.

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

FDIS	Report on voting
78/1319/FDIS	78/1326/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.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61472 series, published under the general title *Live working – Minimum approach distances*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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## LIVE WORKING – MINIMUM APPROACH DISTANCES –

### Part 2: Method of determination of the electrical component distance for AC systems from 1,0 kV to 72,5 kV

#### 1 Scope

This part of IEC 61472 specifies a method for determining the electrical component of the minimum approach distances for live working, for AC systems 1 kV up to and including 72,5 kV. This document addresses system overvoltages and the working air distances between equipment and/or workers at different potentials.

The withstand voltage and minimum approach distances determined by the method described in this document can be used only if the following working conditions prevail:

- workers are trained for, and skilled in, working live lines or close to live conductors or equipment;
- the operating conditions are adjusted so that the statistical overvoltage does not exceed the value selected for the determination of the required withstand voltage;
- transient overvoltages are the determining overvoltages;
- tool insulation has no continuous film of moisture present on the surface;
- no lightning is observed within 10 km of the work site;
- allowance is made for the effect of the conducting components of tools.

NOTE In some countries, special procedures have been developed to permit live working with surface moisture on tools at distribution voltages (below 50 kV).

#### 2 Normative references

There are no normative references in this document.

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### 3.1

##### highest voltage of a system

$U_s$

highest value of operating voltage (phase-to-phase voltage) which occurs under normal operating conditions at any time and any point in the system

Note 1 to entry: Transient overvoltages and permanent induction from adjacent lines are not taken into account in the calculation formula