IEC 60364-7-722

Edition 1.0 2015-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Withdrawn

Low-voltage electrical installations – Part 7-722: Requirements for special installations or locations – Supplies for electric vehicles

Installations électriques à basse tension – Partie 7-722: Exigences pour les installations et emplacements spéciaux – Alimentation des véhicules électriques

IEC 60364-7-722:2015-02(en-fr)

Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2015 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC
The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications
The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue
The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub
The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,…). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org
The world's leading online dictionary of electronic and electrical terms containing more than 30 000 terms and definitions in English and French, with equivalent terms in 15 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary
More than 60 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc
If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.

A propos de l'IEC
La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC
Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Catalogue IEC - webstore.iec.ch/catalogue
Application autonome pour consulter tous les renseignements bibliographiques sur les Normes internationales, Spécifications techniques, Rapports techniques et autres documents de l'IEC. Disponible pour PC, Mac OS, tablettes Android et iPad.

Recherche de publications IEC - www.iec.ch/searchpub

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,…). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et aussi une fois par mois par email.

Electropedia - www.electropedia.org

Le premier dictionnaire en ligne de termes électroniques et électriques. Il contient plus de 30 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans 15 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary
Plus de 60 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: csc@iec.ch.

Withdrawn

Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

IEC 60364-7-722

Edition 1.0 2015-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Withdrawn

Low-voltage electrical installations – Part 7-722: Requirements for special installations or locations – Supplies for electric vehicles

Installations électriques à basse tension – Partie 7-722: Exigences pour les installations et emplacements spéciaux – Alimentation des véhicules électriques

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 43.120; 91.140.50

ISBN 978-2-8322-2305-5

Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

® Registered trademark of the International Electrotechnical Commission
Marque déposée de la Commission Electrotechnique Internationale

AVA Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

CONTENTS

FOREWORD 3
INTRODUCTION 5
722 Supplies for electric vehicles 6
722.1 Scope 6
722.2 Normative references 6
722.3 Terms and definitions 7
722.30 Assessment of general characteristics 8
722.31 Purposes, supplies and structure 8
722.311 Maximum demand and diversity 8
722.312 Conductor arrangement and system earthing 9
722.314 Division of installation 9
722.4 Protection for safety 9
722.41 Protection against electric shock 9
722.413 Protective measure: electrical separation 9
722.5 Selection and erection of electrical equipment 10
722.51 Common rules 10
722.511 Compliance with standards 10
722.512 Operational conditions and external influences 10
722.53 Selection and erection of electrical equipment – Isolation, switching and control 10
722.530 Introduction 10
722.531 Devices for protection against indirect contact by automatic disconnection of supply 11
722.533 Devices for protection against overcurrent 12
722.535 Co-ordination of various protective devices 12
722.543 Protective conductors 12
722.55 Other equipment 12
Annex A (informative) List of notes concerning certain countries 14
Bibliography 22

Withdrawn

Documents
Document Sharing Hub
Full document details: IEC 60364-7-722 2015

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-722: Requirements for special installations or locations – Supplies for electric vehicles

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.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
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 60364-7-722 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

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

FDIS	Report on voting
64/1986/FDIS	64/2004/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 60364 series, under the general title *Low-voltage electrical installations*, can be found on the IEC website.

Withdrawn

AVA Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

The reader's attention is drawn to the fact that Annex A lists all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of 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.

withdrawn

Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

INTRODUCTION

For the purpose of this part (IEC 60364-7-722) the requirements of the general parts 1 to 6 of IEC 60364 apply.

The IEC 60364-7-7XX parts of IEC 60364 contain particular requirements for special installations or locations which are based on the requirements of the general parts of IEC 60364 (IEC 60364-1 to IEC 60364-6). These IEC 60364-7-7XX parts are considered in conjunction with the requirements of the general parts.

The particular requirements of this part of IEC 60364 supplement, modify or replace certain of the requirements of the general parts of IEC 60364 being valid at the time of publication of this part. The absence of reference to the exclusion of a part or a clause of a general part means that the corresponding clauses of the general part are applicable (undated reference).

Requirements of other 7XX parts being relevant for installations covered by this part also apply. This part may therefore also supplement, modify or replace certain of these requirements valid at the time of publication of this part.

The clause numbering of this part follows the pattern and corresponding references of IEC 60364. The numbers following the particular number of this part are those of the corresponding parts, or clauses of the other parts of the IEC 60364 series, valid at the time of publication of this part, as indicated in the normative references of this document (dated reference).

If requirements or explanations additional to those of the other parts of the IEC 60364 series are needed, the numbering of such items appears as 722.101, 722.102, 722.103 etc.

NOTE In the case where new or amended general parts with modified numbering were published after this part was issued, the clause numbers referring to a general part in this 722 part may no longer align with the latest edition of the general part. Dated references should be observed.

Withdrawn

AVA Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-722: Requirements for special installations or locations – Supplies for electric vehicles

Withdrawn

722 Supplies for electric vehicles

722.1 Scope

The particular requirements of this part of IEC 60364 apply to

– circuits intended to supply energy to electric vehicles,

– circuits intended for feeding back electricity from electric vehicles into the supply network.

NOTE The requirements for feeding back electricity from electric vehicles into the supply network are under consideration.

Inductive charging is not covered.

722.2 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 60269 (all parts), *Low voltage fuses*

IEC 60309-1:1999, *Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements*

IEC 60309-2, *Plugs, socket-outlets and couplers for industrial purposes – Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories*

IEC 60364 (all parts), *Low-voltage electrical installations*

IEC 60898 (all parts), *Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations*

IEC 60947-2, *Low-voltage switchgear and controlgear – Part 2: Circuit-breakers*

IEC 60947-6-2, *Low-voltage switchgear and controlgear – Part 6-2: Multiple function equipment – Control and protective switching devices (or equipment) (CPS)*

IEC 61008-1, *Residual current circuit-breakers without integral overvoltage protection for household and similar uses (RCCBs) – Part 1: General rules*

IEC 61009-1, *Residual current operated circuit-breakers with integral overvoltage protection for household and similar uses (RCBOs) – Part 1: General rules*

IEC 61140:2001, *Protection against electric shock – Common aspects for installation and equipment*

AVA Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

IEC 61557-8, *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 8: Insulation monitoring devices for IT systems*

IEC 61557-9, *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 9: Equipment insulation fault location in IT systems*

IEC 61558-2-4, *Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V – Part 2-4: Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers*

IEC 61851 (all parts), *Electric vehicle conductive charging system*

IEC 62196 (all parts), *Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles*

IEC 62196-1, *Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles – Part 1: General requirements*

IEC 62196-2, *Plugs, socket-outlets, vehicle connectors and vehicle inlets – Conductive charging of electric vehicles – Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories*

IEC 62262, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

IEC 62423, *Type F and type B residual current operated circuit-breakers with and without integral overcurrent protection for household and similar uses*

722.3 Terms and definitions

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

722.3.1
electric vehicle
EV
any vehicle propelled by an electric motor drawing current from a rechargeable storage battery or from other portable energy storage devices (rechargeable, using energy from a source off the vehicle such as a residential or public electricity service), which is manufactured primarily for use on public streets, roads or highways

Note 1 to entry: In ISO publications, the term “electric road vehicle” is used for “electric vehicle.”

[SOURCE: IEC 61851-1:2010, 3.8]

722.3.2
connecting point
point where one electric vehicle is connected to the fixed installation

Note 1 to entry: The connecting point is a socket-outlet or a vehicle connector.

Note 2 to entry: The connecting point may be part of the fixed installed electric vehicle supply equipment in accordance with the IEC 61851 series.

Withdrawn

AVA Documents Document Sharing Hub

Full document details: IEC 60364-7-722 2015

722.3.3
mode 1 charging
connection of the EV to the a.c. supply network (mains) utilizing standardized socket-outlets not exceeding 16 A and not exceeding 250 V a.c. single-phase or 480 V a.c. three-phase, at the supply side, and utilizing the live and protective earth conductors

[SOURCE: IEC 61851-1:2010, 6.2 "EV charging modes, mode 1 charging"]

722.3.4
mode 2 charging
connection of the EV to the a.c. supply network (mains) utilizing standardized single-phase or three-phase socket-outlets not exceeding 32 A and not exceeding 250 V a.c. single-phase or 480 V a.c. three-phase, and utilizing the live and protective earth conductors together with a control pilot function and system of personnel protection against electric shock (RCD) between the EV and the plug or as a part of the in-cable control box

[SOURCE: IEC 61851-1:2010, 6.2 "EV charging modes, mode 2 charging", modified]

722.3.5
mode 3 charging
connection of the EV to the a.c. supply network (mains) utilizing dedicated electric vehicle supply equipment where the control pilot function extends to control equipment in the electric vehicle supply equipment permanently connected to the a.c. supply network (mains)

[SOURCE: IEC 61851-1:2010, 6.2 "EV charging modes, mode 3 charging"]

722.3.6
mode 4 charging
connection of the EV to the a.c. supply network (mains) utilizing an off-board charger where the control pilot function extends to equipment permanently connected to the a.c. supply

[SOURCE: IEC 61851-1:2010, 6.2 "EV charging modes, mode 4 charging"]

722.3.7
demand factor
ratio, expressed as a numerical value or as a percentage, of the maximum demand of a circuit or a group of circuits within a specified period, to the corresponding total installed load of the circuit(s)

Note 1 to entry: In using this term, it is necessary to specify to which level of the system it relates.

[SOURCE: IEC 60050-691:1973, 691-10-05, modified – the word "circuit" has replaced the word "installation"].

722.30 Assessment of general characteristics

722.31 Purposes, supplies and structure

722.311 Maximum demand and diversity

Add the following:

It shall be considered that in normal use each single connecting point is used at its rated current.

NOTE For this application the demand factor of the final circuit supplying the connecting point (e.g. the socket-outlet) is equal to 1.

Withdrawn

AVA Documents Document Sharing Hub

Full document details: IEC 60364-7-722 2015

Since all the connecting points of the installation can be used simultaneously, the diversity factor of the distribution circuit shall be taken as equal to 1. However, this factor may be reduced where load control is available.

722.312 Conductor arrangement and system earthing

722.312.2.1 TN systems

Add the following:

In a TN system, the final circuit supplying a connecting point shall be a TN-S system.

722.314 Division of installation

Add the following:

722.314.101 A dedicated circuit shall be provided for the connection to electric vehicles.

722.4 Protection for safety

722.41 Protection against electric shock

722.413 Protective measure: electrical separation

722.413.3 Requirements for fault protection

Add the following:

722.413.3.101 The circuit shall be supplied through a fixed isolating transformer complying with IEC 61558-2-4.

NOTE In mode 4 (d.c. charging), requirements for the isolating transformer are under consideration.

722.41.B Obstacles and placing out of reach

722.41.B.2 Obstacles

Replace the existing text by the following:

Protection by obstacles shall not be used.

722.41.B.3 Placing out of reach

Replace the existing text by the following:

Protection by placing out of reach shall not be used.

722.41.C.1 Non-conducting location

Replace the existing text by the following:

Protection by non-conducting location shall not be used.

722.41.C.2 Protection by earth-free local equipotential bonding

Replace the existing text by the following:

Protection by earth-free local equipotential bonding shall not be used.

Withdrawn

Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

722.41.C.3 Electrical separation for the supply of more than one item of current-using equipment

Replace the existing text by the following:

Electrical separation shall not be used for the supply of more than one electric vehicle.

722.5 Selection and erection of electrical equipment

722.51 Common rules

722.511 Compliance with standards

Add the following:

722.511.101 EV charging stations shall comply with the appropriate parts of the IEC 61851 series.

722.512 Operational conditions and external influences

722.512.2 External influences

Add the following new subclauses:

722.512.2.101 Presence of water (AD)

Where the connection point is installed outdoors, the equipment shall be selected with a degree of protection of at least IPX4 in order to protect against water splashes (AD4).

722.512.2.102 Presence of solid foreign bodies (AE)

Where the connecting point is installed outdoors, the equipment shall be selected or provided with a degree of protection of at least IP4X in order to protect against the ingress of small objects (AE3).

722.512.2.103 Impact (AG)

Equipment installed in public areas and car park sites shall be protected against mechanical damage (impact of medium severity AG2). Protection of the equipment shall be afforded by one or more of the following:

– the position or location shall be selected to avoid damage by any reasonably foreseeable impact;
– local or general mechanical protection shall be provided;
– equipment shall be installed that complies with a minimum degree of protection against external mechanical impact of IK07 in accordance with the requirements of IEC 62262.

722.53 Selection and erection of electrical equipment – Isolation, switching and control

722.530 Introduction

Withdrawn

AVA Documents Document Sharing Hub

Full document details: IEC 60364-7-722 2015

722.530.3 General and common requirements

Add the following:

722.530.3.101 The requirements of this clause shall be achieved either by the selection and erection of the appropriate equipment in the fixed installation or by the selection of an EV charging station which incorporates the appropriate equipment or a combination of both.

722.530.3.102 Insulation monitoring devices (IMD)

For circuits in IT systems that are intended to supply energy for electric vehicles, for example by an isolating transformer or a battery system, an insulation monitoring device (IMD) according to IEC 61557-8 shall be provided.

An IMD may not be necessary for a circuit that uses automatic disconnection of supply at the first fault.

It is recommended to install an IMD with the following two response values:

– Pre-warning

  If the insulation resistance falls below 300 Ω/V an optical and/or acoustical signal should be issued to the user. An ongoing charging session may continue but a new charging session shall not take place.

– Alarm

  If the resistance falls below 100 Ω/V an optical and/or acoustical signal should be issued to the user. The charging circuit may shut down within 10 s.

722.530.3.103 Insulation fault location system (IFLS)

For circuits described in 722.530.3.102, and if more than one electric vehicle is supplied from the same unearthed supply, it is recommended to use an insulation fault location system (IFLS) according to IEC 61557-9 to detect the faulty circuitry within the shortest possible time.

722.531 Devices for protection against indirect contact by automatic disconnection of supply

722.531.2 Residual current protective devices

Add the following:

722.531.2.101 Except for circuits using the protective measure of electrical separation, each connecting point shall be protected by its own RCD of at least type A, having a rated residual operating current not exceeding 30 mA.

Where the EV charging station is equipped with a socket-outlet or vehicle connector complying with the IEC 62196 series, protective measures against d.c. fault current shall be taken, except where provided by the EV charging station. The appropriate measures, for each connection point, shall be as follows:

– RCD type B; or

– RCD type A and appropriate equipment that ensures disconnection of the supply in case of d.c. fault current above 6 mA.

RCDs shall comply with one of the following standards: IEC 61008-1, IEC 61009-1, IEC 60947-2 or IEC 62423.

NOTE Requirements for the selection and erection of RCDs in the case of supplies using d.c. vehicle connectors according to the IEC 62196 series are under consideration.

Withdrawn

Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

732.531.2.1.1

Replace the existing subclause, including the NOTE, as follows:

RCDs shall disconnect all live conductors.

722.533 Devices for protection against overcurrent

Add the following:

722.533.101 Each connecting point shall be supplied individually by a final circuit protected by an overcurrent protective device complying with IEC 60947-2, IEC 60947-6-2 or IEC 61009-1 or with the relevant parts of the IEC 60898 series or the IEC 60269 series.

NOTE 1 The overcurrent protective device may be part of the switchboard, the fixed installation or the electric vehicle supply equipment.

NOTE 2 The electric vehicle supply equipment may have multiple connecting points.

722.535 Co-ordination of various protective devices

722.535.3 Discrimination between residual current protective devices

Replace the first paragraph as follows:

Where required for service reasons, selectivity shall be maintained between the RCD protecting a connecting point and an RCD installed upstream.

722.543 Protective conductors

Add the following:

722.543.101 Control signals on the protective conductor (PE) shall not flow into the fixed electrical installation; equipment shall be selected accordingly.

NOTE This requirement can be achieved by using a galvanic separation of the control electronics.

The requirements of 7.5.2 of IEC 61140:2001 shall apply.

Such signals, and the related devices, shall not impair the correct functioning of the devices installed to provide the protective measure of automatic disconnection of supply (e.g. RCD).

722.55 Other equipment

Add the following:

722.55.101 Socket-outlets and vehicle connectors

722.55.101.1 Each connecting point shall be provided with one socket-outlet or vehicle connector complying with an appropriate standard, e.g. IEC 60309-1 or IEC 62196-1, where interchangeability is not required, and IEC 60309-2, IEC 62196-2 or IEC 62196-3 where interchangeability is required. Socket-outlets with a rated current not exceeding 16 A according to the national standard may also be used.

Except where electrical separation is used, each socket-outlet shall have an earthing contact connected to the protective conductor (PE).

Withdrawn

AVA Documents Document Sharing Hub

Full document details: IEC 60364-7-722 2015

722.55.101.2 Every socket-outlet or vehicle connector shall be located as close as practicable to the EV parking place to be supplied.

722.55.101.3 Portable socket-outlets are not permitted.

One socket-outlet or vehicle connector shall supply only one electric vehicle.

withdrawn

Documents
Document Sharing Hub

Full document details: IEC 60364-7-722 2015

Annex A
(informative)

List of notes concerning certain countries

Country	Clause N°	Nature (permanent or less permanent according to IEC Directives)	Rationale (detailed justification for the requested country note)	Wording
IT	722.1		This part of the standard shall be in line with the general rules existing in Italy for safety and operational purposes	Limitation to the use of mode 1 and mode 2 in Italy are given in CEI EN 61851-1
GB	722.1		For clarification	In the UK, electrical installations for charging mobility scooters and similar vehicles of 10 A and less are excluded
DE	722.3.7		As the demand factor is not used anymore, delete definition 727.3	In Germany, definition 722.3.7 is deleted
DE	722.311		Simplify wording to avoid misunderstanding for electrical installers. No need to introduce new additional term “demand factor	In Germany the following note is deleted: Note: For this application the demand factor of the final circuit supplying the connecting point (e.g. the socket-outlet) is equal to 1
GB	722.312.2.1		For safety	In the UK, the national standard permits TNCS to be used subject to certain conditions being satisfied (Electricity safety, quality and continuity regulations). (722.411.4.1)
AT	722.415.1	Permanent	As in 722.531.2 obviously additional protection with RCD having a rated residual operating current not exceeding 30 mA is meant, it should be mentioned here as a requirement. It seems important to mention here that “true additional” protection by RCD is needed for each connection point except cases of 722.413.3.101	In Austria, a new subclause is added: 722.415.1 Additional protection: residual current protective devices (RCDs) Except circuits protected by electrical separation (see 722.413), circuits supplying connection points shall be additionally protected by RCDs having a rated residual operating current not exceeding 30 mA. Devices selected shall disconnect all live conductors including the neutral (see 722.531.2). The function of fault protection for the circuit shall be fulfilled separately

Withdrawn

AVA Documents
Document Sharing Hub