

ELINSTALLATIONSREGLERNA UTGÅVA 3

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utvecklingsansvarig



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HARMONIZATION DOCUMENT
DOCUMENT D'HARMONISATION
HARMONISIERUNGSDOKUMENT

HD 60364-4-443

July 2006

Supersedes HD 3

ICS 91.140.50

English version

Electrical installations of buildings
Part 4-44: Protection for safety –
Protection against voltage disturbances –
and electromagnetic disturbances –
Clause 443: Protection against overvoltages of atmospheric
or due to switching
(IEC 60364-4-44:2001/A1:2003, modified)

Installations électriques des bâtiments
Partie 4-44: Protection pour assurer
la sécurité –
Protection contre les perturbations
de tension et les perturbations
électromagnétiques –
Article 443: Protection contre les
surtensions d'origine atmosphérique
ou dues à des manœuvres
(CEI 60364-4-44:2001/A1:2003, modifiée)

Elektrische Anlagen von
Teil 4-44: Schutzmaßnahme
Schutz bei Störspannungen
elektromagnetischen
Abschnitt 443: Schutz
Überspannungen infolge
atmosphärischer Einwirkung
von Schaltvorgängen
(IEC 60364-4-44:2001/A1:2003, modifiziert)

This Harmonization Document was approved by CENELEC on 2005-07-01. CENELEC
comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for
Harmonization Document at national level.

Up-to-date lists and bibliographical references concerning such national implementation
application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium,
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Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia,
Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B-1050 Brussels

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IEC 60364-5-54

Edition 3.0 2011-03

**INTERNATIONAL
STANDARD**

**NORME
INTERNATIONALE**

BASIC SAFETY PUBLICATION
PUBLICATION FONDAMENTALE DE SÉCURITÉ

Low-voltage electrical installations –
Part 5-54: Selection and erection of electrical equipment – Earthing
arrangements and protective conductors

Installations électriques basse-tension –
Partie 5-54: Choix et mise en œuvre des matériels électriques – Installations de
mise à la terre et conducteurs de protection

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64/2174/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 60364-7-722 ED2

DATE OF CIRCULATION:

2017-02-17

CLOSING DATE FOR COMMENTS:

2017-05-12

SUPERSEDES DOCUMENTS:

64/2098/RR, 64/2099/CD

IEC TC 64 : ELECTRICAL INSTALLATIONS AND PROTECTION AGAINST ELECTRIC SHOCK
SECRETARIAT:
Germany

SECRETARY:
Mr Reinhard Pelta

OF INTEREST TO THE FOLLOWING COMMITTEES:
TC 23, SC 23E, TC 69, ISO-TC22/SC37;
ISO-TC22/SC38

PROPOSED HORIZONTAL STANDARD:
☐

Other TC/SCs are requested to indicate their interest, if any,
in this CD to the secretary.

FUNCTIONS CONCERNED:
☐ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

☒ SAFETY

This document is still under study and subject to change. It should not be used for reference purposes.
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are aware and to provide supporting documentation.

TITLE:

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

NOTE FROM TC/SC OFFICERS:

Due to the fast progress of the technology related to electric vehicle supply, MT42 (previously PT722) started
the revision on IEC 60364- 7-722 in accordance with decision D22 of Oslo plenary meeting.
D22) Plenary agreed to start maintenance of Part 722 as soon as possible, preferably in parallel with TC 69 work
on inductive charging.

In the present revision of IEC 60364- 7-722, the main items that have been taken into account are the following:

- Supply of Light electric Vehicles
- Wireless power transfer

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64/2145/CDV

COMMITTEE DRAFT FOR VOTE (CDV)
PROJET DE COMITÉ POUR VOTE (CDV)
IEC 60364-7-711, Ed.2

Project number Numéro de projet IEC/TC or SC: 64 CE/CE ou SC:		Secretariat / Secrétariat Mr. Reinhard PELTA reinhard.pelta@siemens.com
Submitted for parallel voting in CENELEC ☒ Soumis au vote parallèle au CENELEC		Date of circulation Date de diffusion 2016-11-25
Also of interest to the following committees Intéresse également les comités suivants		Closing date for voting (Voting mandatory for P-members) Date de clôture du vote (Vote obligatoire pour les membres (P)) 2017-02-17
Proposed horizontal standard Norme horizontale suggérée ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the TC/SC secretary Les autres CE/SC sont requis d'indiquer leur intérêt, si nécessaire, dans ce CDV à l'intention du secrétaire du CE/SC		Supersedes document Remplace le document 64/1999/CD & 64/2142/CC
Functions concerned Fonctions concernées ☒ Safety Sécurité ☐ EMC CEM ☐ Environment Environnement ☐ Quality assurance Assurance qualité		

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Titre :

IEC 60364-7-711: Installations électriques
basse tension – Exigences pour les
installations ou emplacements spéciaux –
Expositions, spectacles et stands

Titre :

IEC 60364-7-711: Low voltage electrical
Installation – Part 7-711: Requirements
for special installations or locations –
Exhibitions, shows and stands

ATTENTION VOTE PARALLÈLE IEC – CENELEC L'attention des Comités nationaux de l'IEC, membres du CENELEC, est attirée sur le fait que ce projet de comité pour vote (CDV) de Norme internationale est soumis au vote parallèle. Les membres du CENELEC sont invités à voter via le système de vote en ligne du CENELEC.	ATTENTION IEC – CENELEC PARALLÈLE VOTING The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) for an International Standard is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.
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64/2147/FDIS

FINAL DRAFT INTERNATIONAL STANDARD
PROJET FINAL DE NORME INTERNATIONALE
IEC 60364-4-41 AMD1 Ed. 5

☒ Submitted for parallel voting in CENELEC Soumis au vote parallèle au CENELEC	Project number Numéro de projet IEC/TC or SC CEI/CE ou SC TC 64	Secretariat / Secrétariat Germany
Also of interest to the following committees Intéresse également les comités suivants	Distributed on / Diffusé le 2016-10-14	Voting terminates on / Vote clos le 2016-11-25
Horizontal standard Norme horizontale	Supersedes document Remplace le document 64/2029/CDV & 64/2121/RVC	
☐ Other TC/SCs are requested to indicate their interest, if any, in this FDIS to the TC/SC secretary Les autres CE/SC sont requis d'indiquer leur intérêt, si nécessaire, dans ce FDIS à l'intention du secrétaire du CE/SC		
Functions concerned Fonctions concernées		
☒ Safety Sécurité	☐ EMC CEM	☐ Environment Environnement
☐ Quality assurance Assurance de la qualité		

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OUTRE LE FAIT D'ÊTRE EXAMINÉS POUR ÉTABLIR S'ILS SONT ACCEPTABLES À DES FINS INDUSTRIELLES, TECHNOLOGIQUES ET COMMERCIALES, AINSI QUE DU POINT DE VUE DES UTILISATEURS, LES PROJETS FINAUX DE NORMES INTERNATIONALES DOIVENT PARFOIS ÊTRE EXAMINÉS EN VUE DE LEUR POSSIBILITÉ DE DEVENIR DES NORMES POUVANT SERVIR DE RÉFÉRENCE DANS LES RÉGLEMENTATIONS NATIONALES.

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IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, FINAL DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME 'STANDARDS' TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

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Title
**Amendement 1 à l'IEC 60364-4-41:
Installations électriques à basse tension
- Partie 4-41: Protection pour assurer la
sécurité - Protection contre les chocs
électriques**

Title
**Amendment 1 to IEC 60364-4-41: Low
voltage electrical installation – Part 4-41:
Protection for safety – Protection against
electric shock**

ATTENTION
VOTE PARALLÈLE
CEI – CENELEC
L'attention des Comités nationaux de la CEI, membres du CENELEC, est attirée sur le fait que ce projet finale de Norme internationale est soumis au vote parallèle.
Les membres du CENELEC sont invités à voter via le système de vote en ligne du CENELEC.

ATTENTION
IEC – CENELEC
PARALLEL VOTING
The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this final draft International Standard (DIS) is submitted for parallel voting.
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DOP OCH DOW

HD 60364-5-56:2010/A11:2013

– 2 –

Foreword

This document (HD 60364-5-56:2010/A11:2013) has been prepared by CLC/TC 64, "Electrical installations and protection against electric shock".

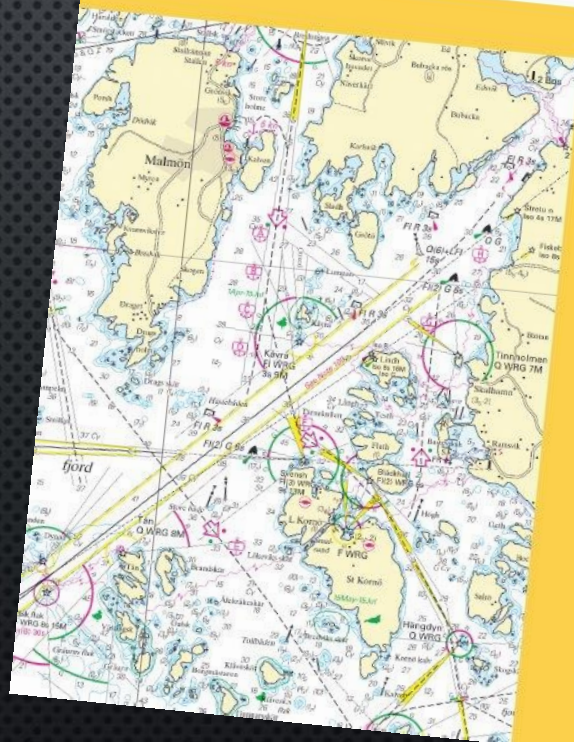
The following dates are fixed:

- latest date by which this document has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2014-01-15
- latest date by which the national standards conflicting
with this document have to be withdrawn (dow) 2014-04-15

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Einstallationsreglerna

SS 436 40 00, utg 2,
med kommentarer



SEK
SVENSK
ELSTANDARD

eUU

NYHETER I UTGÅVA 3

ÄNDRAD TERMINOLOGI

- Förbjudet, får inte...
 - Ska inte...
- Får...
 - Kan...
- Är tillåten...
 - Kan användas
- Permanent ansluten
 - Fast ansluten
- Permanent...
 - Varaktigt...
- Akustiskt ljud
 - Hörbart
- Spänningsförande
 - Spänningssatt





KAPITEL 41 – SKYDD MOT ELCHOCK

Främmande ledande delar som förs in i en byggnad ska anslutas till huvudjordningskenan.

KAPITEL 41 – SKYDD MOT ELCHOCK



Frånkopplingstider

- ≤ 63 A som matar vägguttag
- ≤ 32 A som matar fast ansluten materiel

Kapitel 41 – Skydd mot elchock



Jordfelsbrytare 30 mA:

- uttag ≤ 32 A som används av lekmän/avsedda för allmänbruk, och
- flyttbar elmateriel ≤ 32 A för användning utomhus.

Kapitel 41 – Skydd mot elchock



Jordfelsbrytare 30 mA:
Kretsar som matar
ljusarmaturer i bostäder.

Kapitel 42 – Skydd mot termiska verkningar



Skydd mot ljusbågar rekommenderas:

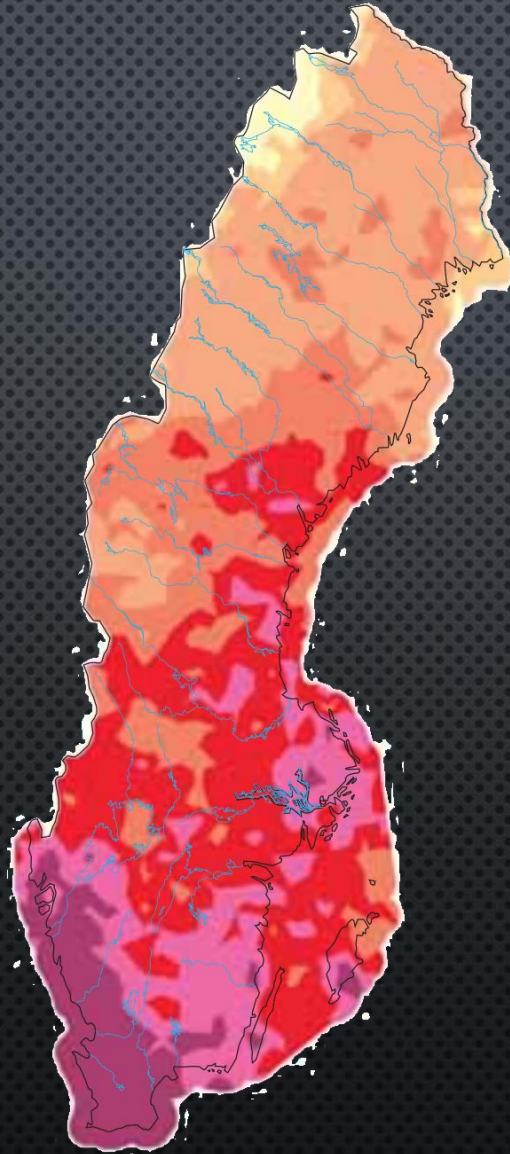
- I utrymmen med förhöjd brandrisk (BE2)
- I utrymmen utförda av brännbart konstruktionsmaterial (CA2)
- I utrymmen där byggnadskonstruktionen kan sprida brand (CB2)
- I utrymmen med oersättliga föremål

Ljusbågsdetektor (AFDD) kan användas

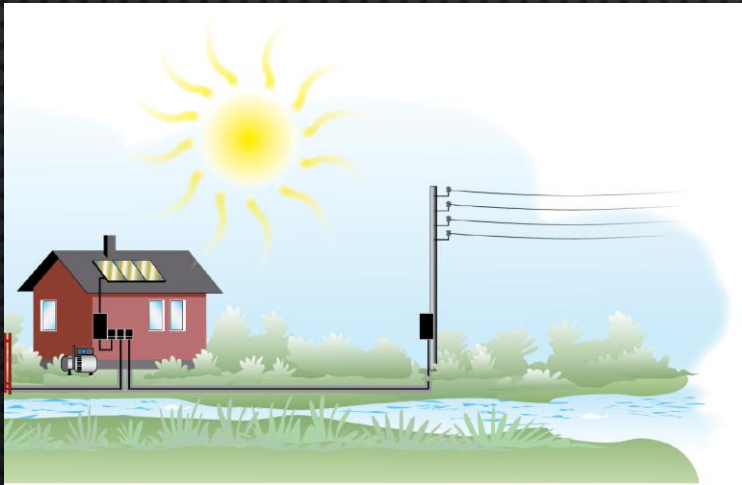
443 – Skydd mot överspänning

- Påverkar människoliv
- Service till allmänheten och kulturarv
- Kommersiell och industriell verksamhet
- Eller genom riskbedömning

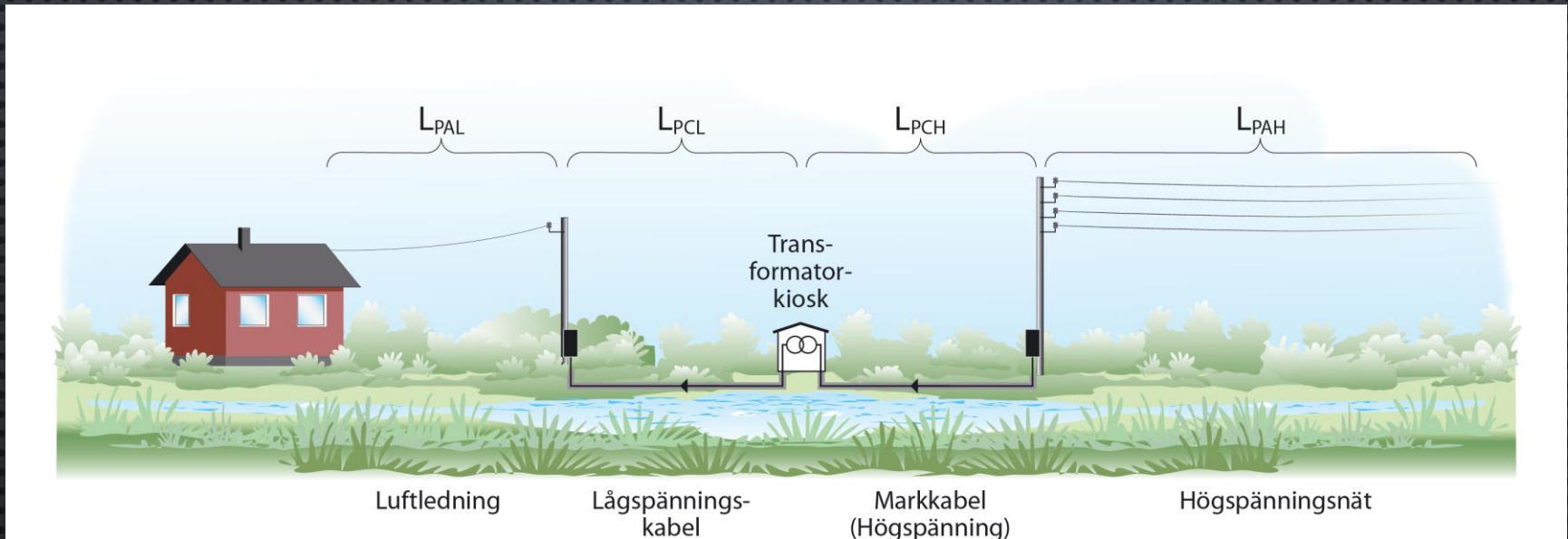
N_g värde



$f_{\text{env}} = 850$ i stadsmiljö



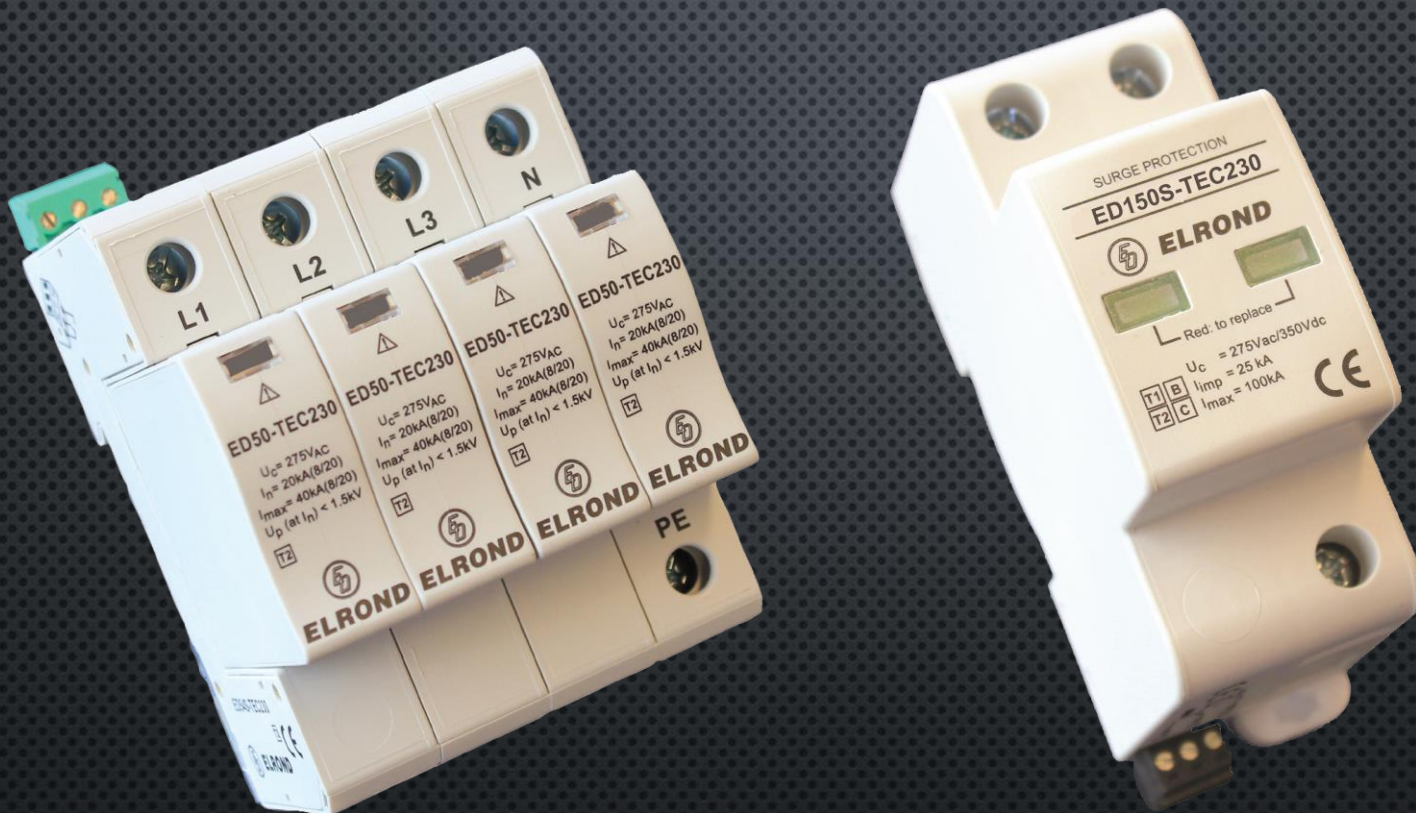
$f_{\text{env}} = 85$ på landsbygd



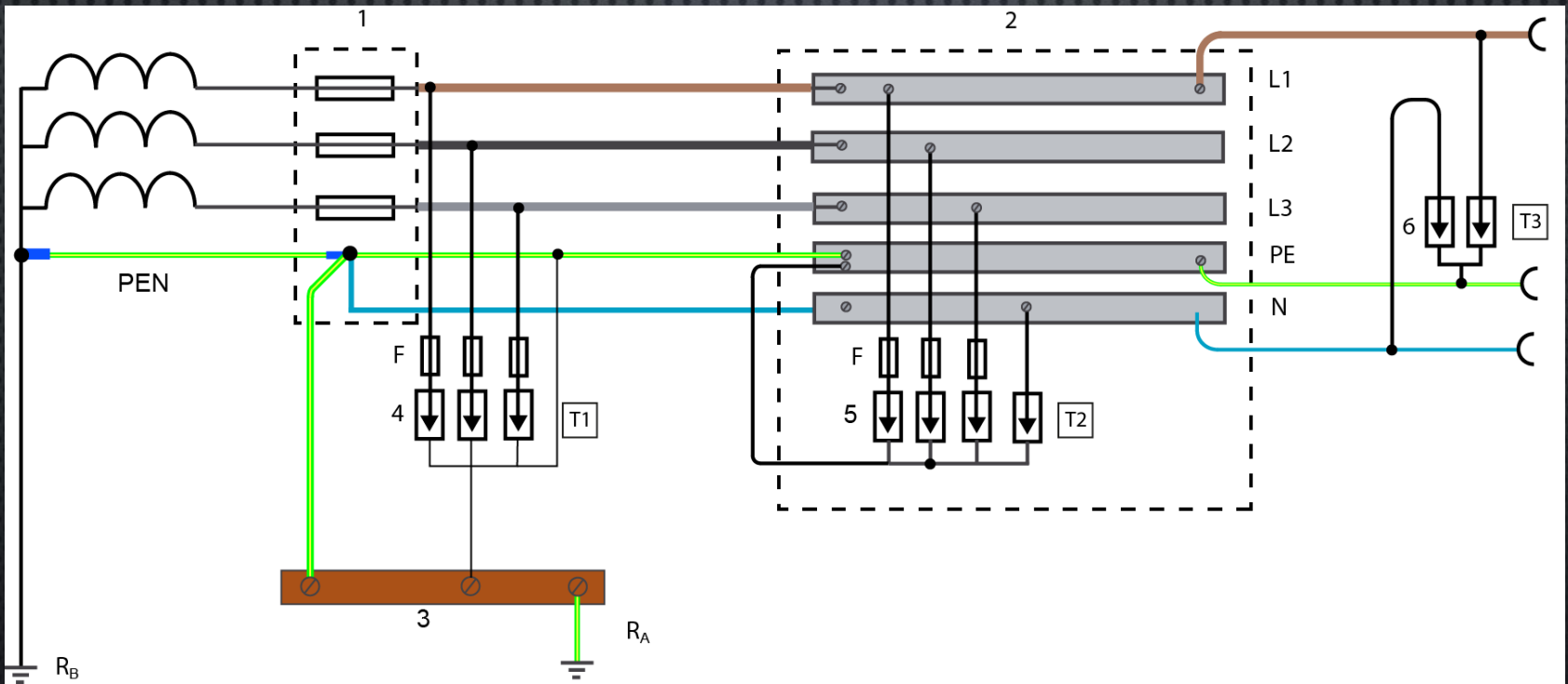
$$L_P = 2L_{PAL} + L_{PCL} + 0,4 L_{PCH} + 0,2L_{PAH}$$

$$\text{CRL} = f_{\text{env}} / (L_p \times N_g)$$





534 VAL OCH MONTERING AV ÖVERSPÄNNINGSSKYDD



56 – Säkerhetssystem



Elektriskt system för elmateriel som är anordnad för att skydda eller varna personer i händelse av att en riskkälla uppstår eller för utrymning av ett utrymme

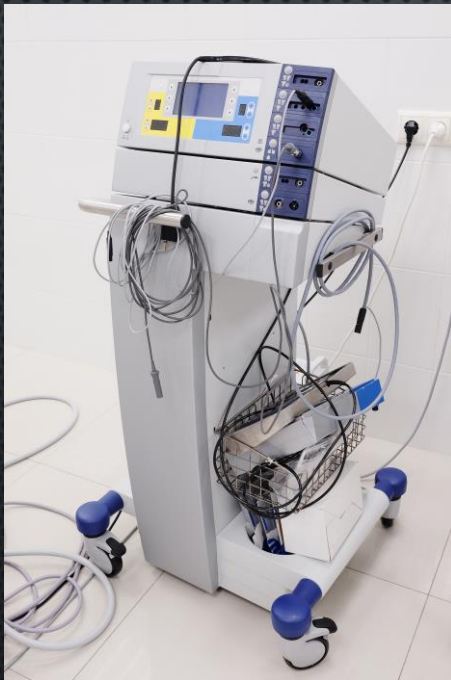
Kraftförsörjning för säkerhetssystem

Matningssystem avsett för att
upprätthålla driften av
nödvändiga delar av en
elinstallation

NÖDKRAFT



Avsnitt 710 – Medicinska utrymmen



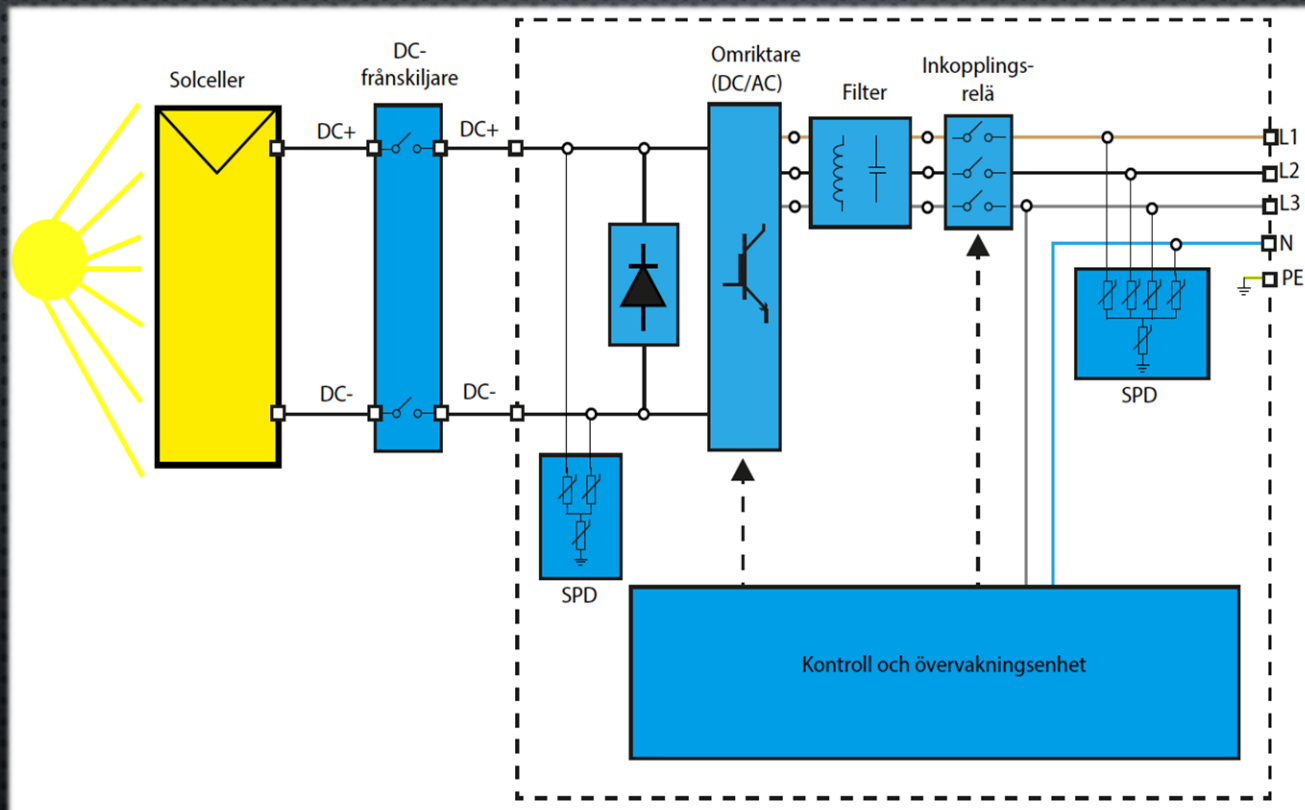
- Avsnittet förs över från SS 437 10 02
- Reglerna uppdaterade
 - TN- och IT-system jämföras

712 – Kraftförsörjningssystem med fotoelektriska solceller



- Potentialutjämnning av paneler av klass II
 - Funktionsutjämnning
 - Ledarmärkning – inte grönt och gult

Anslutning till TN-S-system.



Avsnitt 722 – Laddning av elfordon

Fyra laddningslägen:

- Mod 1 – "vanliga" uttag
- Mod 2 – trefas- eller enfasuttag, styrfunktion på sladd
- Mod 3 – laddstation med styrfunktion
- Mod 4 – laddstation med likströmsladdning/ snabbladdning



Avsnitt 722 – Laddning av elfordon



- Skydd med jordfelsbrytare 30 mA – typ A eller B
- Bör även skyddas överspänningskydd.

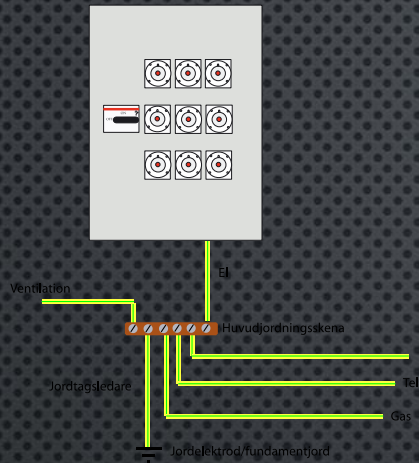
SAMMANFATTNING

Terminologi

- "förbud" tas bort
- Inget är permanent
- Spänningsatt

Orenande förbjudes
vid laga påföljd.

SAMMANFATTNING



AFDD

- Skyddsutjämning förenklas
- Korta fränkopplingstider
- Jordfelsbrytare
- Ljusbågsskydd

SAMMANFATTNING

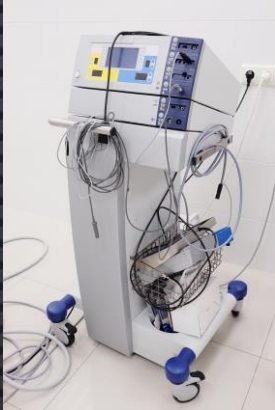


- Överspänningsskydd



- Säkerhetssystem

SAMMANFATTNING



- Medicinska rum



- Solceller



- Laddning av elfordon



Tack för visat intresse
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