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Standards

Standard Recommendation
S.R. CLC/TS 50539-22:2010

**Low-voltage surge protective devices -
Surge protective devices for specific
application including d.c. -- Part 22:
Selection and application principles -
Wind turbine applications**

S.R. CLC/TS 50539-22:2010

Incorporating amendments/corrigenda issued since publication:

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English version

**Low-voltage surge protective devices -
Surge protective devices for specific application including d.c. -
Part 22: Selection and application principles -
Wind turbine applications**

Parafoudres basse tension -
Parafoudres pour applications spécifiques
incluant le courant continu -
Partie 22: Principes de choix
et d'application -
Parafoudres connectés aux installations
éolienne

Überspannungsschutzgeräte
für Niederspannung -
Überspannungsschutzgeräte
für besondere Anwendungen
einschließlich Gleichspannung -
Teil 22: Auswahl
und Anwendungsgrundsätze -
Überspannungsschutzgeräte
für den Einsatz in Windenergieanlagen

This Technical Specification was approved by CENELEC on 2009-10-30.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

This Technical Specification was prepared by the Technical Committee CENELEC TC 37A, Low voltage surge protective devices.

It was circulated for voting in accordance with the Internal Regulations, Part 2, Subclause 11.3.3.3 and was accepted as a CENELEC Technical Specification on 2009-10-30.

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

The following date was fixed:

- latest date by which the existence of the CLC/TS
has to be announced at national level (doa) 2010-04-30

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1 Scope

This Technical Specification applies to surge protection of wind turbine generators and wind power systems.

Normative references are made to generic standards for lightning protection, low-voltage systems and high-voltage systems for machinery and installations and electromagnetic compatibility (EMC).

This Technical Specification defines requirements for selection and installation of surge protective devices for the power circuits. Some special information about particular testing are also included since there is not a current standard for testing surge protective devices for wind turbines.

2 Normative references

Void.

3 Terms and definitions

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

3.1

LEMP protection measures system

LPMS

complete system of protection measures for internal systems against LEMP

[EN 62305-4:2006, Definition 3.9]

3.2

lightning current

i

current flowing at the point of strike

[EN 62305-1:2006, Definition 3.9]

3.3

lightning electromagnetic impulse

LEMP

electromagnetic effects of lightning current

NOTE It includes conducted surges as well as radiated impulse electromagnetic field effects.

[EN 62305-4:2006, Definition 3.4]

3.4

lightning protection level

LPL

number related to a set of lightning current parameter values relevant to the probability that the associated maximum and minimum design values will not be exceeded in naturally occurring lightning

NOTE Lightning protection level is used to design protection measures according to the relevant set of lightning current parameters.

[EN 62305-1:2006, Definition 3.38]

3.5

lightning protection system

LPS

complete system used to reduce physical damage due to lightning flashes to a structure

NOTE It consists of both external and internal lightning protection systems.

[EN 62305-1:2006, Definition 3.40]

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