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Spänningsstyva strömriktare (VSC) för elöverföring med högspänd likström (HVDC) – Elektrisk provning

*Voltage sourced converter (VSC) valves for high-voltage
direct current (HVDC) power transmission –
Electrical testing*

Som svensk standard gäller europastandarden EN 62501:2009. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62501:2009.

Nationellt förord

Europastandarden EN 62501:2009

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62501, First edition, 2009 - Voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) power transmission - Electrical testing**

utarbetad inom International Electrotechnical Commission, IEC.

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**Voltage sourced converter (VSC) valves
for high-voltage direct current (HVDC) power transmission -
Electrical testing
(IEC 62501:2009)**

Valves à convertisseur de source
de tension (VSC) pour le transport
d'énergie en courant continu
à haute tension (CCHT) -
Essais électriques
(CEI 62501:2009)

Spannungsgeführte Stromrichterventile
(VSC-Ventile) für die
Hochspannungsgleichstromübertragung
(HGÜ) -
Elektrische Prüfung
(IEC 62501:2009)

This European Standard was approved by CENELEC on 2009-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 22F/185/FDIS, future edition 1 of IEC 62501, prepared by SC 22F, Power electronics for electrical transmission and distribution systems, of IEC TC 22, Power electronic systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62501 on 2009-07-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2010-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2012-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62501:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60146-2 NOTE Harmonized as EN 60146-2:2000 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60060	Series	High-voltage test techniques	EN 60060	Series
IEC 60060-1	1989	High-voltage test techniques - Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60071-1	2006	Insulation co-ordination - Part 1: Definitions, principles and rules	EN 60071-1	2006
IEC 60700-1	1998	Thyristor valves for high voltage direct current	EN 60700-1	1998
A1	2003	(HVDC) power transmission -	A1	2003
A2	2008	Part 1: Electrical testing	A2	2008
ISO/IEC 17025	- ¹⁾	General requirements for the competence of testing and calibration laboratories	EN ISO/IEC 17025	2005 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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VOLTAGE SOURCED CONVERTER (VSC) VALVES FOR HIGH-VOLTAGE DIRECT CURRENT (HVDC) POWER TRANSMISSION – ELECTRICAL TESTING

1 Scope

This International Standard applies to self-commutated converter valves, for use in a three-phase bridge voltage sourced converter (VSC) for high voltage d.c. power transmission or as part of a back-to-back link. It is restricted to electrical type and production tests.

The tests specified in this standard are based on air insulated valves. For other types of valves, the test requirements and acceptance criteria must be agreed.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60060 (all parts), *High-voltage test techniques*

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60071-1:2006, *Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 60700-1:1998, *Thyristor valves for high voltage direct current (HVDC) power transmission – Part 1: Electrical testing*¹⁾

Amendment 1(2003)

Amendment (2008)

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

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[REDACTED]

■ [REDACTED]

[REDACTED]

¹⁾ There exists a consolidated edition 1.2 (2008) that comprises IEC 60700-1, Amendment 1 and Amendment 2.