# Power losses in voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) systems - Part 1: General requirements

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

| | |
|---|---|
| See Eesti standard EVS-EN 62751-1:2014 sisaldab Euroopa standardi EN 62751-1:2014 inglisekeelset teksti. | This Estonian standard EVS-EN 62751-1:2014 consists of the English text of the European standard EN 62751-1:2014. |
| 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. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 31.10.2014. | Date of Availability of the European standard is 31.10.2014. |
| Standard on kättesaadav Eesti Standardikeskusest. | The standard is available from the Estonian Centre for Standardisation. |



Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 29.200, 29.240

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 62751-1

October 2014

ICS 29.200; 29.240

English Version

# Power losses in voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) systems - Part 1: General requirements (IEC 62751-1:2014)

Pertes de puissance dans les valves à convertisseur de source de tension (VSC) des systèmes en courant continu à haute tension (CCHT) - Partie 1: Exigences générales (CEI 62751-1:2014)

Bestimmung der Leistungsverluste in Spannungszwischenkreis-Stromrichtern (VSC) für Hochspannungsgleichstrom(HGÜ)-Systeme - Teil 1: Allgemeine Anforderungen (IEC 62751-1:2014)

This European Standard was approved by CENELEC on 2014-10-01. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**



Ref. No. EN 62751-1:2014 E

## Foreword

The text of document 22F/302/CDV, future edition 1 of IEC 62751-1, 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 approved by CENELEC as EN 62751-1:2014.

The following dates are fixed:

| | | |
|---|---|---|
| – latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2015-07-01 |
| – latest date by which the national standards conflicting with the document have to be withdrawn | (dow) | 2017-10-01 |

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## Endorsement notice

The text of the International Standard IEC 62751-1:2014 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 61803:1999 | NOTE | Harmonised as EN 61803:1999. |

# Annex ZA
(normative)

## Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| IEC 60633 | - | Terminology for high-voltage direct current (HVDC) transmission | EN 60633 | - |
| IEC 60747-2 | - | Semiconductor devices - Discrete devices and integrated circuits -- Part 2: Rectifier diodes | - | - |
| IEC 60747-9 | 2007 | Semiconductor devices - Discrete devices - Part 9: Insulated-gate bipolar transistors (IGBTs) | - | - |
| IEC 62747 | 2014 | Terminology for voltage-sourced converters (VSC) for high-voltage direct current (HVDC) systems | EN 62747 | 2014 |

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