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TECHNICAL REPORT

AMENDMENT 2

High-voltage direct current (HVDC) systems – Application of active filters

IEC TR 62544:2011-08/AMD2:2020-02(en)

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

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

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FOREWORD

This amendment has been prepared by subcommittee 22F: Power electronics for electrical transmission and distribution systems, of IEC technical committee 22: Power electronic systems and equipment.

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

Draft TR	Report on voting
22F/519/DTR	22F/525/RVDTR

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website 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- withdrawn,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.

2 Normative references

Replace the existing reference "IEC/TR 62001:2009*" by the following new reference:*

IEC TR 62001-1:2016, *High-voltage direct current (HVDC) systems – Guidance to the specification and design evaluation of AC filters – Part 1: Overview*

3 Terms and definitions

Replace, in the existing first paragraph, the reference "IEC 62001:2009" *by* "IEC TR 62001-1:2016"*.*

Replace, in the existing note, modified by IEC TR 62544:2011/AMD1:2016, the reference "IEC 62001" *by* "IEC TR 62001-1"*.*

5.1 Harmonic disturbances on the d.c. side

Replace, in the second paragraph, the existing two bullet points by the following new bullet points:

- The induced voltage U_{ind} in a theoretically 1 km telephone line situated 1 km from the d.c. overhead line should be limited to a set value.
- A one minute mean value of the equivalent psophometric current I_{pc} at any point on the d.c. pole overhead line should be limited to a set value.

6.2 Harmonic disturbances on the a.c. side of a HVDC system

Replace, in the existing last paragraph, the reference "IEC 62001:2009" *by* "IEC TR 62001-1:2016".

6.3.1 Conventional passive filters

Replace, in the existing second paragraph, the reference "IEC 62001:2009, Clauses 7 and 8" *by* "IEC TR 62001-1:2016, Clauses 6 and 7".

Bibliography

Add, at the end of the Bibliography, modified by IEC TR 62544:2011/AMD1:2016, the following new references:

[21] CIGRÉ WG B4.47, "Special Aspects of AC Filter Design for HVDC Systems", Technical Brochure 553, 2013

[22] IEC TR 62001-2:2016, *High-voltage direct current (HVDC) systems – Guidance to the specification and design evaluation of AC filters – Part 2: Performance*

[23] IEC TR 62001-3:2016, *High-voltage direct current (HVDC) systems – Guidance to the specification and design evaluation of AC filters – Part 3: Modelling*

[24] IEC TR 62001-4:2016, *High-voltage direct current (HVDC) systems – Guidance to the specification and design evaluation of AC filters – Part 4: Equipment*

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