

TECHNICAL REPORT



High-voltage direct current (HVDC) power transmission using voltage sourced converters (VSC)



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High-voltage direct current (HVDC) power transmission using voltage sourced converters (VSC)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HIGH-VOLTAGE DIRECT CURRENT (HVDC) POWER
TRANSMISSION USING VOLTAGE SOURCED CONVERTERS (VSC)**

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IEC TR 62543 has been prepared by subcommittee 22F: Power electronics for electrical transmission and distribution systems, of IEC technical committee 22: Power electronic systems and equipment. It is a Technical Report.

This second edition cancels and replaces the first edition published in 2011, Amendment 1:2013 and Amendment 2:2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) in Clause 3, some redundant definitions which were identical to those listed in IEC 62747 have been deleted;
- b) in 4.3.4, description and diagrams have been added for the cases of a bipole with dedicated metallic return and a rigid bipole;
- c) in 4.4, mention is made of the bi-mode insulated gate transistor (BiGT) and injection enhanced gate transistor (IEGT) as possible alternatives to the IGBT;
- d) in 5.6, the reference to common-mode blocking reactors has been deleted since these are very rarely used nowadays.

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

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This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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