

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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

**Valves à convertisseur de source de tension (VSC) pour le transport d'énergie en courant continu à haute tension (CCHT) – Essais électriques**



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IEC 62501 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 an International Standard.

This second edition cancels and replaces the first edition published in 2009, Amendment 1:2014 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) Conditions for use of evidence in lieu are inserted as a new Table 1;
- b) Test parameters for valve support DC voltage test, 7.3.2, and MVU DC voltage test, 8.4.1, updated;
- c) AC-DC voltage test between valve terminals, Clause 9, is restructured and alternative tests, by individual AC and DC voltage tests, added in 9.4.2;

- d) Partial discharge test in routine test program is removed;
- e) More information on valve component fault tolerance, Annex B, is added;
- f) Valve losses determination is added as Annex C.

The text of this International Standard is based on the following documents:

Draft	Report on voting
22F/731/CDV	22F/748A/RVC

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

The language used for the development of this International Standard is English.

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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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