

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Static var compensators (SVC) – Testing of thyristor valves**

**Compensateurs statiques de puissance réactive (SVC) – Essais des valves à thyristors**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**STATIC VAR COMPENSATORS (SVC) –  
TESTING OF THYRISTOR VALVES**

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International Standard IEC 61954 has been prepared by subcommittee 22F: Power electronics for electrical transmission and distribution systems, of IEC technical committee 22: Power electronics.

This second edition cancels and replaces the first edition published in 1999, amendment 1 (2003) and constitutes a technical revision.

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

- a) Definitions of terms "thyristor level", "valve section", "valve base electronics" and "redundant thyristor levels" have been changed for clarification.
- b) Conditions of testing thyristor valve sections instead of a complete thyristor valve have been defined.
- c) The requirement has been added that if, following a type test, one thyristor level has become short-circuited, then the failed level shall be restored and this type test repeated.
- d) The time period of increasing the initial test voltage from 50 % to 100 % during type a.c. dielectric tests on TSC, TCR or TSR valves has been set equal to approximately 10 s.

- e) The duration of test voltage  $U_{ts2}$  during type a.c.-d.c. dielectric tests between TSC valve terminals and earth as well as the duration of test voltage  $U_{tvv2}$  during dielectric tests between TSC valves (for MVU only) has been changed from 30 min to 3 h.
- f) The reference on the number of pulses per minute of the periodic partial discharge recorded during a.c.-d.c. dielectric tests on TSC valves and exceeding the permissible level has been deleted.

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

CDV	Report on voting
22F/217/CDV	22F/231A/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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