

TECHNICAL REPORT



High-voltage direct current (HVDC) systems – Guidance to the specification and design evaluation of AC filters –

Part 1: Overview



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Part 1: Overview

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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This first edition of IEC TR 62001-1, together with IEC TR 62001-2¹, IEC TR 62001-3¹ and IEC TR 62001-4, cancels and replaces IEC TR 62001 published in 2009. This edition constitutes a technical revision.

¹ To be published.

IEC TR 62001-1 includes the following significant technical changes with respect to IEC TR 62001:

- a) Clauses 3 to 5, 7 to 9, 17, 20, Annexes A and C to E have been expanded and supplemented;
- b) Annexes C and F on the definition of telephone interference parameters and voltage sourced converters have been added.

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

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22F/378/DTR	22F/384A/RVC

Full information on the voting for the approval of this document 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.

A list of all parts in the IEC TR 62001 series, published under the general title *High-voltage direct current (HVDC) systems – Guidance to the specification and design evaluation of AC filters*, can be found on the IEC website.

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INTRODUCTION

IEC TR 62001 is structured in four parts:

Part 1 – Overview

This part concerns specifications of AC filters for high-voltage direct current (HVDC) systems with line-commutated converters, permissible distortion limits, harmonic generation, filter arrangements, filter performance calculation, filter switching and reactive power management and customer specified parameters and requirements.

Part 2 – Performance

This part deals with current-based interference criteria, design issues and special applications, field measurements and verification.

Part 3 – Modelling

This part addresses the harmonic interaction across converters, pre-existing harmonics, AC network impedance modelling, simulation of AC filter performance.

Part 4 – Equipment

This part concerns steady-state and transient ratings of AC filters and their components, power losses, audible noise, design issues and special applications, filter protection, seismic requirements, equipment design and test parameters.

Withhold