

Australian Standard™

Static transfer systems (STS)

Part 1: General and safety requirements



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The following are represented on Committee EL-027:

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Part 1: General and safety requirements

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-027, Power Electronics.

The objective of this Standard is to provide general and safety requirements for free standing a.c. static transfer systems (STS) intended to ensure the continuity of power to load by automatically or manually controlled transfer, with or without interruption, from two or several a.c. independent sources.

This Standard is Part 1 of a three-part Standard which, when complete will consist of the following:

AS

62310 Static transfer systems (STS)

62310.1 Part 1: General and safety requirements (this Standard)

62310.2 Part 2: Electromagnetic compatibility (EMC) requirements

62310.3 Part 3: Method of specifying the performance and test requirements

This Standard is identical with, and has been reproduced from IEC 62310-1, Ed. 1 (2005), *Static transfer systems (STS) – Part 1: General and safety requirements*.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'IEC 62310-1' should read 'AS 62310.1'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard**Static transfer systems (STS)****Part 1: General and safety requirements****1 Scope**

IEC 62310 consists of three parts and applies to free standing a.c. static transfer systems (STS) intended to ensure the continuity of power to load by automatically or manually controlled transfer, with or without interruption, from two or several a.c. independent sources.

This part of IEC 62310 concerns general and safety requirements. See future IEC 62310-2 for electromagnetic compatibility (EMC) and future IEC 62310-3 for the method of specifying performance and test requirements.

This part of IEC 62310 is intended to reduce the risk of fire, electric shock, or injury to persons from installed equipment subject to installing, operating, and maintaining the equipment in the manner prescribed by the manufacturer.

This part of IEC 62310 includes requirements for the switching elements, their control and protective elements, where applicable. This part of IEC 62310 also includes information for the overall integration of the STS and its accessories into the a.c. power distribution system.

Components or devices necessary for the operation/control/protection/isolation (e.g. circuit-breakers, fuses, transformers, etc.) of a STS should comply with the requirements of the relevant IEC standards and are not covered by this part of IEC 62310.

This standard applies to systems up to 1 000 V (a.c. value) which are intended to be used in single phase or phase-phase or three phase applications.

This standard does not apply to:

- devices for d.c. source switching;
- static transfer system using only electromechanical switching devices intended to be used in emergency power systems with interruption of the supply to the load during transfer. This equipment is covered by IEC 60947-6-1;
- the automatic switching devices integrated into UPS covered by IEC 62040 series.

NOTE For STS intended to be used in vehicles, onboard ships or aircraft, in tropical countries, for emergency power systems (such as those used for health care facilities, fire fighting, emergency rescue, etc.), or on elevations greater than 1 000 m, different requirements may be necessary.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

References to international standards that are struck through in this clause are replaced by references to Australian Standards that are listed immediately thereafter and identified by shading. Any Australian Standard that is identical to the International Standard it replaces is identified as such.