



UL 1008S

STANDARD FOR SAFETY

Solid-State Transfer Switches

UL Standard for Safety for Solid-State Transfer Switches, UL 1008S

First Edition, Dated November 15, 2012

SUMMARY OF TOPICS:

This revision of ANSI/UL 1008S is being issued to update the title page to reflect the reaffirmation of ANSI approval.

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HISTORICAL NOTE

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Prior to the publication of this first edition these requirements were covered by Supplement A of the Standard for Safety for Transfer Switch Equipment, UL 1008.

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UL 1008S

Standard for Solid-State Transfer Switches

First Edition

November 15, 2012

This ANSI/UL Standard for Safety consists of the First edition including revisions through January 19, 2018.

The most recent designation of ANSI/UL 1008S as a Reaffirmed American National Standard (ANS) occurred on January 19, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

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INTRODUCTION

1 Scope

1.1 These requirements cover solid state automatic transfer switches intended for use in ordinary locations to provide for lighting and power only in optional stand-by systems in accordance with Article 702 of the National Electrical Code, ANSI/NFPA 70.

1.2 Solid-state transfer switches are not for use as service entrance equipment unless marked as such.

1.3 These requirements cover transfer switch equipment rated at 6000 A or less and 600 V or less.

1.4 These requirements cover transfer switches together with their associated control devices including voltage sensing relays, frequency sensing relays, time delay relays, and the like.

1.5 An automatic transfer switch as covered by these requirements is a device that automatically transfers a common load from a normal supply to an alternate supply in the event of failure of the normal supply, and automatically returns the load to the normal supply when the normal supply is restored.

Exception: An automatic transfer switch is allowed to be provided with a logic control circuit that inhibits automatic operation of the device from either a normal to an alternate supply, or from an alternate to a normal supply when the switch reverts to automatic operation upon loss of power to the load.

1.6 A non-automatic transfer switch as covered by these requirements is a device, operated manually by a physical action, or electrically by a remote control, for transferring a common load between a normal and alternate supply.

1.7 A transfer switch may incorporate overcurrent protection for the main power circuits.

1.8 These requirements cover completely enclosed transfer switches and also open types intended for mounting in other equipment such as switchboards.

1.9 Transfer switches are rated in amperes and are generally considered to be acceptable for total system transfer, which includes control of motors, electric-discharge lamps, electric-heating loads, and tungsten-filament lamp loads as referred to in 1.10.

1.10 A transfer switch intended for total system transfer as indicated in 1.9 is considered to be acceptable for the control of tungsten-filament lamp loads not exceeding 30 percent of the switch ampere rating unless the switch has been investigated for a higher percentage of lamp load and marked accordingly.

1.11 A transfer switch may be limited to use with one or more specific types of load if investigated accordingly and marked as indicated in 47.11.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

2.2 A component is not required to comply with a specific requirement that:

- a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or
- b) Is superseded by a requirement in this standard.

2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

2.5 A component not marked with a short-circuit current rating is considered rated for use in a circuit having a maximum available fault current as shown in Table 2.1.

2.6 The short-circuit current available in the secondary circuit of a transformer rated 10 kVA or less is considered to be 5000 amperes or less.

2.7 The short-circuit current available on the load side of a 15 ampere current-limiting circuit breaker or Class CC, G, J, RK1, RK5, or T fuse is considered to be 5000 amperes. In a single phase 120-volt circuit, the short-circuit current available on the load side of a 20 ampere circuit breaker or Class CC, G, J, RK1, RK5, or T fuse is considered to be 10,000 amperes or less.

Table 2.1
Assumed maximum short-circuit current ratings for unmarked components

Component	Short-circuit current rating, kA
1. Circuit breaker (including GFCI type)	5
2. Clock-operated switch	5
3. Fuseholder	10
4. Lighting fixture (circuit) internal	5
5. Miniature fuse	10 ^a
6. Plug fuse	10
7. Industrial control equipment:	
a. Auxiliary device	5
b. Motor controllers or switches (other than mercury tube type)	5
c. Mercury tube switches:	

Table 2.1 Continued on Next Page

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