



Division 263623

Enclosed Transfer Switch

DESIGN GUIDE

1 General

1.1 Introduction

- A. This section applies to the following:
 - 1. Enclosed Transfer Switch

2 Materials

2.1 Automatic Transfer Switch

- A. Manufacturers: Caterpillar, Onan, ASCO, or approved equal.
- B. Description: NEMA ICS 10, automatic transfer switch.
- C. Configuration: Electrically operated, mechanically held transfer switch over-center type
- D. Transfer switches for NEC 700, 701 & 702 systems shall be listed for such use.
- E. Switch shall transfer the load to the Essential Power Supply System (EPSS) after the generator set reaches proper voltage and frequency. Transfer shall occur no later than the indicated time for each branch based on the table below. NEC 700 loads shall be configured for automatic connection to the generator with no intentional delay.
 - 1. NEC 700 – 10 seconds



2. NEC 701 – 60 seconds
 3. NEC 702 – 90 seconds
- F. Retransfer Load to Normal Source:
1. Switch shall retransfer the load to the normal source after normal power restoration.
 2. Controls shall signal the engine-generator set to stop after load retransfer to normal source.
- G. Enclosure: NEMA Type 1 for indoor, NEMA Type 3R for outdoor.

3 Execution

3.1 Installation

- A. Install the automatic transfer switch in accordance with manufacturer's instructions and make all necessary power and control connections. Set time delay functions.
- B. Demonstrate operation of transfer switch bypass normal, and emergency modes. Perform the following automatic transfer tests:
1. Simulate Loss of Power
 2. Return to Normal Power
 3. Simulate Loss of Emergency Power
 4. Simulate load shed condition
 5. Simulate all forms of Single Phase Conditions

4 Appendix

4.1 Reserved for future.