Hubbell Industrial Controls, Inc.
A subsidiary of Hubbell Incorporated
4301 Cheyenne Dr.
Archdale, NC 27263

Telephone (336) 434-2800
FAX (336) 434-2803

Instruction Manual

Transfer switches

HMTS Manual Transfer Switch

30-3000 Ampere
2, 3, 4 Pole

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1.0 Introduction

Hubbell's manual HMTS transfer switches are available in 2, 3, and 4 pole models with ampere ratings of 30 to 3000 A.

A handle through the front door is included with all transfer switches to manually close the normal or emergency contacts, with a center Off position.

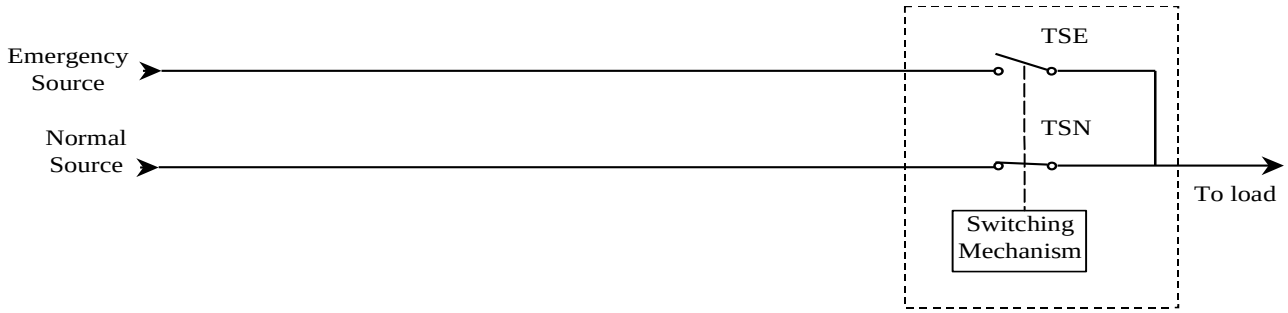


Figure 1-1 Block Diagram of manual transfer switch showing one phase

2.0 Installation

Refer to the transfer switch nameplate to ensure that the voltage, current, and ratings are compatible with the load.

Receiving and Storage

After receiving the transfer switch inspect the cabinet for any damage that may have occurred during shipping. If the transfer switch is not installed immediately, cover the cabinet and store in a dry area. Condensation can corrode the contacts and other metal parts.

Location

The transfer switch should be located as close as possible to the engine generator or to the alternate power source.

Line Connections

Refer to the drawings posted inside the cabinet door and in the drawing packet for customer connections.

Before drilling and punching holes in the cabinet for wiring connections cover the transfer switch with a protective covering. Small debris falling into the transfer switch may jam the switching mechanism or may cause electrical failure.

Ensure that the normal (primary), emergency (alternate), and load isolation switches are open before making connections. Connect the load, normal source, and emergency source power cables in the same phase sequence. Refer to the latest NFPA 70 and Field Connections Wiring Diagram for cable sizes and torque requirements.

After installation is complete, perform a transfer test as described in section 4.0 Maintenance.

3.0 Operation

Refer to the schematic and wiring diagrams that are provided with the transfer switch. These drawings are provided in a packet, along with this manual. A schematic is also posted on the inside of the cabinet door.

Operation from normal to emergency, and emergency to normal is completed by moving the handle on the front door to the required position. An Off position is also provided.

Auxiliary Contacts

Refer to the schematic supplied with the transfer switch. The contacts are rated for pilot duty: 5 A at 125 or 250 VAC.

4.0 Maintenance

DANGER: Do not touch the transfer switch until ALL power is disconnected. Shocks, burns, or death may result from high voltage.

CAUTION: Only personnel who are familiar with the power distribution system and this manual should be allowed to inspect or perform maintenance on the transfer switch.

Preventive maintenance

The following checks should be preformed as part of routine maintenance:

- A transfer test of the transfer switch should be preformed every week.
- The transfer switch should be kept clean of dust and moisture. DO NOT USE A BLOWER TO CLEAN the switch or the inside of the enclosure. Always use a clean cloth or vacuum to prevent debris from lodging in the switching mechanism.
- Check all wiring connections.
- Visually inspect the contacts for surface deposits and pitting. This inspection should be preformed annually.

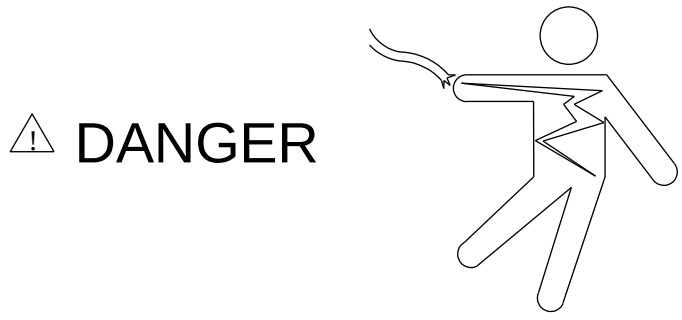
Transfer Test

After installation, and each week thereafter, check the operation of the transfer switch by performing a manual transfer.

CAUTION: Always close enclosure door when switch transfers with power connected.

1. Verify that the transfer switch transfers to the emergency source.
2. Verify that the transfer switch retransfers to the normal position.

Troubleshooting



WARNING: Disconnect ALL power supply sources to the transfer switch before servicing to prevent shock or accident hazard.

Before troubleshooting, perform the following checks:

a. visual inspection for physical damage.
b. ensure that all switches are in the normal operating position.
c. ensure that the engine generator is operational or the alternate source is available.
d. ensure that all wiring connections are secure.

As built schematics and wiring diagrams are provided as part of the drawing packet supplied with each transfer switch.
Refer to Bulletin 1000 for information about one year parts and labor warranty.