

Automatic Transfer Switch Option Service Entrance Equipment

Introduction

Lake Shore Electric Corporations' Service Entrance Option provides for the Automatic or Manual Transfer Switch (UL 1008 Listed) to be labeled as Suitable for Use as Service Entrance Equipment (SE).

When a Lake Shore Electric Corporation Transfer Switch is connected to the load end of service conductors to a building or other structure it can be rated and listed as Service Equipment. This allows a great deal of flexibility to the design engineer in creating an efficient and economical electrical power system.

The Service Entrance Rated Transfer Switch is manufactured with the traditional high quality offered by Lake Shore Electric Corporation and in addition to the accessories requested:

- Provides a service disconnecting means.
- Provides permanent marking identifying it as a service disconnect suitable for the prevailing conditions.
- Provides over current protection for each ungrounded service conductor.
- Provides a means of disconnecting the grounding of the grounded conductor.
- Provides clear indication of the position of disconnect.

This dual application allows for the elimination of separate service equipment in series with the transfer switch. The cost savings can be significant.

- Additional equipment is not needed.
- Interposing cable and conduit are eliminated.
- Labor for equipment mounting is reduced.
- Labor for interposing cable and conduit is eliminated.

The logical application of service entrance equipment is where the alternate power supply is capable of accepting the entire service load and/or the placement of the Automatic Transfer Switch is installed in a readily accessible location consistent with Article 230 of the National Electric Code.

Section 230-2 of the National Electric Code clearly identifies emergency systems, legally required standby systems, optional standby systems and parallel power production systems as separate services.

Therefore, there is a requirement to provide additional SE for these sources of power. Since SE must be provided for the on-site power plant, the same benefits that apply when the Lake Shore Service Entrance Rated Transfer Switch is used as the Utility Service Equipment.

Product Features

- UL 1008 Listed
- Provides a Service Disconnecting Means
- Provides Permanent Marking as SE
- Provides Solid Neutral-to-Ground Bonding, Single Point

Operation

This option provides both overcurrent protection on the service entrance side of the equipment and fused protection ahead of all controls for the transfer switch. A neutral-to-ground bonding link is provided, as required by code, but shipped disconnected in the transfer switch.

When ordering this equipment, be sure to indicate which side of the transfer switch is being used for the service entrance, either normal or emergency side. Otherwise, the transfer switch will be constructed with the service entrance coming into the normal, top entry, side of the transfer switch.

Note: When service entrance is ordered on a transfer switch, then the neutral-to-ground bonding must be done within that piece of equipment, per code.

When a Delta system is indicated when ordering a transfer switch, 3 ϕ , 3W, the neutral bus and a single lug will also be provided along with the bonding link. This allows the installer to pull in the delta neutral point to the transfer switch to perform the neutral-to-ground bonding in that location, per code requirements.

Recommendations

Lake Shore Electric Corporation highly recommends that the specifying engineer recommend where any and all service entrance equipment should be placed within the facility.

If SE has already been specified, please consult the factory for ordering the appropriate equipment and further information.

Order Guide

Part Number Examples:

1. ICFA32000BPSB/SE - Insulated Case ATS, 3 pole, 2000 Amp, 120/208Vac, **24Vdc Microprocessor Controls**, 65kAIC @ 480Vac, NEMA 1 Free Standing Enclosure with included option SE.
2. MCDA30400CESA/31 - Molded Case ATS, 3 pole, 400 Amp, 277/480Vac, **Electromechanical Controls**, 35kAIC @ 480Vac, NEMA 1 Wall Mount Enclosure with Option 31.
3. MCDM30400CESA/31 - Molded Case MTS, 3 pole, 400 Amp, 277/480Vac, **Manual Transfer Switch**, 35kAIC @ 480Vac, NEMA 1 Wall Mount Enclosure with Option 31.