

# Installation Considerations

## Physical Location

Transfer switches may be located either inside buildings or in exterior locations. They may be located in individual enclosures or unit mounted as part of an aggregate assembly such as switchboards, motor control centers, distribution switchboards or paralleling switchgear. Local codes may dictate location for some loads in some applications so be sure to check with authorities having jurisdiction for location requirements. Following are some considerations for determining switch location:

- Transfer switches must be mounted in enclosures acceptable for the intended duty and application.
- Switches should be placed in locations not likely to be adversely impacted by acts of nature or vandalism.
- NEC requires fire pump transfer switches to be located in the same room as the fire pump.
- Switches should be secured in locations accessible to only qualified personnel.
- Switches typically are not to be installed in the same room where the normal utility service equipment is installed.
- Electrical point of interconnection may dictate physical location in many instances. Care must be taken to maintain separation of the normal supply circuits and emergency circuits until they enter a transfer switch. This is done to prevent a catastrophic failure in the normal circuits from disabling the emergency circuits.

## Enclosures

All Cummins transfer switch enclosures are UL Listed. The standard enclosure meets the requirements of the National Electrical Manufacturers Association (NEMA) and Underwriters Laboratories for a Type 1; a general-purpose, indoor enclosure that provides protection from accidental contact.

Optional enclosures available in the range of 40– to 1200–ampere transfer switches are: NEMA/UL Type 3R Rainproof and Dustproof, and NEMA/UL Type 4 Watertight enclosures. NEMA/UL Type 1 enclosures are standard on 1600– to 3000–ampere transfer switches. **Table 3** has more detailed information on enclosure application.

## Enclosures (cont'd)

Type	Intended Use	Tests
1	Indoor use primarily to provide protection against contact with the enclosed equipment and against a limited amount of falling dirt.	Rod entry and rust resistance or corrosion protection.
3R	Outdoor use to provide a degree of protection against falling rain; undamaged by the formation of ice on the enclosure.	Icing, protection against corrosion, rain and rod entry.
4	Either indoor or outdoor use to provide a degree of protection against falling rain, splashing water, and hose-directed water; undamaged by the formation of ice on the enclosure.	Hosedown, icing, and protection against corrosion.

Source: UL Standard 1008.

**Table 3.** Enclosure Types and Tests.