

1. Overview of Safety Standards

A safety standard is established by a country or an organization representing it to protect general users from electrical shock and fire hazards. It establishes a standards for electrical devices and components.

For electrical equipment manufacturers, utilizing switches that have been safety-approved ensures the safety of the switch. The use of a safety-approved switch also simplifies at least one part of the process of obtaining certification by safety testing.

2. Major Safety Standards

(1) Electrical Appliance and Material Safety Law

The conventional [Electrical Appliance and Material Control Law] has changed to [Electrical Appliance and Material Safety Law] and has been enforced since April 1, 2001. Electrical appliances are categorized into special electric appliances and parts (formerly Class A) and Electrical appliances other than the special electric appliances (formerly Class B). Special electric appliances have the obligation to receive goodness of fit test at certification test agency and to store the certificate. Also, penal provisions had been reinforced.

Switches not covered in the Electrical Appliance and Material Safety Law

Switches with [structure specialized for building into machines] are precluded from the special electric appliances and parts, therefore, does not have the obligation to receive goodness of fit test. However, the technology standard must be satisfactory no less than the special electric appliances and parts. The major reasons for preclusion from the Electrical Appliance and Material Safety Law are as follows. All of our switches are precluded.

- (1) All except for unipolar/single-throw, unipolar/double-throw, bipolar/single-throw.
- (2) All with signal changing-over switch attached.
- (3) All with lead, faston, wire-wrapping and printed terminals
- (4) All without knobs and handles for manual operation.

(2) UL (Underwriters Laboratories)

The Underwriters Laboratories Inc. is the American safety approving organization. Its purpose is to ensure consumers' safety and protect them from fire hazards. State law requires that equipment to be exported to the United States utilize UL approved power switches or power switches meeting UL standards and capable of passing UL tests.

(3) CSA (Canadian Standards Association)

The CSA is the Canadian safety testing association and tests electrical and other equipment to ensure the safety of individuals and prevent fire hazards. Provincial law requires that the power switches used in equipment for export to Canada be CSA approved.

(4) VDE (Verband Deutscher Elektrotechniker)

The VDE is the German safety testing organization. It is particularly concerned with preventing hazards to human life and fires. Approval is not mandatory but fines are levied against those companies whose unapproved products cause accidents. Therefore, in reality, conformity is a necessity.