

#### **1.3.14.3 Fuses**

- A. These shall be selected according to the application and be suitable for the type of load they feed, for example motor starting, cable protection, protection for the semi conductor devices, control transformer protection etc.
- B. Fuses shall be sized according to the condition under which they will operate such as normal, small sustained overload, heavy overload etc. in order to consider the operating characteristics accordingly.
- C. The fuse shall either include a suitable fuse carrier or it shall be capable of isolation. If the fuse carrier is included it shall be such that when it is being withdrawn normally or when it is completely withdrawn the operator is completely protected from accidental contact with any live metal of its fuse link, fuse contacts and fixed contacts.
- D. Fuse/links shall be fixed inside cubicles with sufficient spacing to facilitate easy fuse/link withdrawal.
- E. If the fuse is capable of isolation it shall be so interlocked with the switch that isolation is complete before the fuse enclosure can be opened further. The switch shall be prevented from closing while the fuse-cover is open.
- F. All fuses shall be of HBC/HRC cartridge type to BS 88/BS EN 60269.
- G. Fuse holders and fittings shall be made of moulded plastic insulating material of an approved make. Ceramic materials will not be accepted. Fuse fittings shall be fully shrouded and it shall be possible to change the fuses without danger of contact with live metal.
- H. Fuse fittings shall have basic sizes of 16, 32, 63, 100 and 200A and the fuse holders shall be able to accept fuse links of that rating on any BS rating down to the next basic size.
- I. A mechanical indication device shall be built into the fuse to indicate operation/fail status.

#### **1.3.14.4 Change-Over-Switch**

- A. Change-over-switch where specified shall be provided in accordance with BS EN 60947-3. The Change over switches shall be manually operated multi pole type suitable to provide changeover and safety isolation between two low voltage power supplies rated 400 Volts, 3 phase, 4 wire, 50Hz under load conditions.