

- B. The minimum short circuit rating of the MCB shall be 10 KA, unless shown otherwise on the relevant single line diagrams.

1.3.13.4 Earth Leakage Circuit Breakers (ELCB)

- A. Earth Leakage Circuit Breakers (ELCB) or Residual Current Circuit Breaker (RCCB) shall have tripping characteristics appropriate to the application and provide discrimination with other series devices. ELCB/RCCB shall comply with BS EN 61008-1.
- B. Current operated earth leakage circuit breakers shall provide accidental protection by interrupting dangerous contact with the voltage that may be present in the faulty electrical equipment's and/or wiring as a result of frame faults, weaker insulation resistance or misuse.
- C. The ELCB shall also provide a high degree of protection against earth leakage, fires and electric shock
- D. The ELCB protecting socket outlet shall have a rated residual operating current of 30 mA with an operating time not exceeding 40 m sec. All other areas protected by ELCB shall have operating current as indicated on the relevant drawings. The ELCB shall isolate all live conductors.
- E. Switching and isolation devices incorporating RCDs shall be selected to provide current and time discrimination with upstream and downstream protective devices.

1.3.13.5 Combined MCB/RCCB

- A. Residual Current Circuit Breaker with Over current Protection (**RCBO**)
- B. RCBO shall comply with BS EN 61008-1 & BS EN 61009-1
- C. RCBO units shall be provided for final circuits supplying socket outlets, outdoor lighting, heating circuits and other small loads.
- D. The units shall have trip sensitivity of 30 mA or as indicated on the relevant drawings.

1.3.13.6 Source Test

- A. All circuit breakers shall be subject to the following witness tests to BS EN 60947 or other approved equivalent standard for voltages up to and including 1000 Volts.
 - a. Routine tests including H.V. pressure test, Millie-volt drop tests and mechanical tests.