

- D. Terminals used for power and control circuit wiring must provide IP2X protection as minimum with starter compartment door opened.
- E. The contactor shall be 3 pole or 4 pole according to the application requirements.
- F. When selecting Contactors for Power Factor Correction Capacitors and Lighting duty, these must confirm and tested to the duty in accordance with the standard.

1.3.16 Protection

- A. The Contractor shall provide for the Engineer's approval circuit protection drawings, which shall include the types and setting ranges of each protective device, the ratio and classification of associated current and voltage transformers and each trip and alarm function.
- B. All protective relays shall be the product of an approved international manufacturer. They shall be suitable for the climate and site conditions and fully sealed against the moisture or dirt and shall be tropicalised.
- C. The relay shall have an automatic thermal compensation for variation in temperature between 0 °C and 60 °C.
- D. Relays shall be suitable for operation between + 10 % and - 25 % of their nominal rated voltage.
- E. All protective relays shall be supplied in metal cases with glass windows, flush mounted on a withdrawal chassis with plug-in facilities. Each relay shall be complete with panel mounting facilities and terminals for external circuit connection.
- F. Secondary injection shall be easily possible by means of purpose-made voltage and/or current plug-in type test terminal blocks which automatically open circuit or short circuit the integral voltage transformers or current transformer respectively and provide terminations for the test supply. Disconnection of any permanent wiring will not be acceptable.
- G. Each individual element of the relay shall initiate a flag to indicate that the element has operated. The element and flag shall be reset by operating an external reset button mounted on the front of the relay case / panel door as approved by site engineer.

1.3.16.1 Relays

- A. All auxiliary relays shall mainly comply with BS EN 116000 and BS EN 116205-7