

**1.3.12.10 Drawings and Documentation**

- A. Following is a List of related drawings and documentation's to be submitted together with the MCC drawings or separately by the contractor for Engineer's review and approval prior to the manufacturing and commencement of any work at site.
- a. Short circuit and Voltage Drop calculations
  - b. Power Factor Correction Capacitors (PFCC) Calculations
  - c. Load Schedules
  - d. Lighting and Small Power Socket Layout
  - e. Cables, conduits and ducting layout
  - f. Cable trenches and earth pits
  - g. Fire detection and fire alarm
  - h. Telephone sockets, JN Box, conduits, duct, manhole etc.
  - i. Field instruments, sensors and other devices mounting detail and location
  - j. Instruments loop diagrams
  - k. Terminals interconnection drawing
  - l. Detailed drawings and supporting documentation's for other vendors if any supply panels and devices.
  - m. Testing and calibration records and procedures
  - n. Installation, Operation and Maintenance procedures

**1.3.13 Low Voltage Circuit Breakers**

- A. All low voltage Circuit Breakers shall be suitable for controlling loads as indicated and shall confirm to BS EN 60947-2 utilization category B or other approved equivalent standard for 400V, 3 phase, 50 Hz, 4 wire operation for use on specified fault level and for service and site climatic conditions as described in Clause 3.11.
- B. All low voltage circuit breakers shall be housed in control boards/cubicles, which comply with the requirements of Clause 3.11.
- C. Unless specified otherwise all **Incoming(s)** Circuit Breakers shall be sized based on the current ratings as follows:-