

5. Thermal memory
  6. Alarm logging
  7. Field selectable Manual or Auto reset
  8. Microprocessor malfunction watch dog
  9. Programmable input/outputs
  10. Load monitoring
  11. Operation counter
  12. Serial communication by employing Modbus protocol.
- k. Carriage/Lifting Truck for ACB exceeding 25 Kg in weight [ One carriage for each site/project regardless of number of breakers provided]
- l. Shunt trip and under voltage release.
- K. The air circuit breaker shall include facility to test the trip circuit healthy mechanism.
- L. Air Circuit breakers shall be designed and constructed such that inspection, maintenance and replacement of the main fixed and moving contacts shall be easily possible on site. Manufacturer's detailed instructions shall be incorporated in the maintenance manuals. Circuit Breakers requiring their complete return to the manufacturers for service will not be acceptable.
- M. The air circuit breaker when equipped with transformer protection relays shall be provided with, an intertrip relay to trip the H.V. circuit breaker on operation of transformer protection device.
- N. The air circuit breaker shall trip every time it's associated HV circuit breaker trips.
- O. Association of Short-circuit Testing Authorities (A.S.T.A.) or Keuring van Electrotechnische Materialen, Arnhem (K.E.M.A) test Certificates shall be submitted for all circuit breakers

#### **1.3.13.2 Low Voltage Moulded Case Circuit Breakers (MCCB)**

- A. Moulded Case Circuit Breaker shall be provided as stated above with electrical and mechanical ON/OFF/TRIP indication when used as an Incomer and be certified to at least the same fault level (Icu) as that of the busbar systems. MCCBs shall have the following minimum features:
- a. Mechanical indication of the circuit breaker when opened closed and tripped.