

pumps (dedicated control as part of EMPR protection device) in the event of phase failure or phase reversal condition.

- f. Lightning protection (for Mains only)
- g. Auto/manual changeover for MCC with two or more Incomers (See Metering Section below)
- h. Trip circuit healthy test facility in case of a circuit breaker is logically designed to trip on fault through externally mounted protection devices e.g. IDMT (Inverse Definite Minimum Time relay), UV relay etc).
- i. Control fuses
- j. Earth leakage protection with current transformers as required by ADDC.
- k. Open/close/trip indicating lamps, terminals etc.

1.3.12.2 ATS Panel

- A. The MCC in this case shall have one Incomer Circuit breaker only and the same shall be powered by a common feed coming from the ATS panel. The changeover function shall be automatic from Mains to Generator upon failure of power and from Generator to Mains upon restoration of power.

1.3.12.3 Metering Control Section for Incomers

- A. All meters shall be of the door mounted type.
- B. A separate metering section shall be included in order to accommodate analogue meters, Power Monitor, control relays, timers, PLC, selector switches, push buttons, indicating lamps etc. as necessary for interlocking scheme for the incomers.
- C. Auto/manual changeover scheme shall be included unless specified otherwise, as a definite requirement for two or more incomers, provided generator for alternate supply is included for permanent and fixed installation as part of the contract.
- D. Detailed drawings shall be prepared during the design stage and the same to be submitted to the engineer for approval prior to the manufacturing.

1.3.12.4 Generator Hook-Up

- A. Pumping stations requiring mobile generator shall be provided with Appliance Inlet socket outlet as described under Section Industrial plugs and sockets.