

1.3.11 MCC, LV Switchboards and Control Panels

1.3.11.1 Design and Construction

- A. The term FBA used in the following means **F**actory **B**uilt **A**ssembly
- B. The LV Assemblies shall be Totally Type Tested, conforming to the requirements of BS EN 60439-1 (IEC 60439-1), designed in the form of floor standing Multi-cubicle-type containing modularized Incoming and outgoing units. There shall be a separate section for Busbars and cables. All functional units' incoming and outgoing shall be housed in a separate compartment.
- C. All FBA's shall consist of number of cubicles of equal height and depth mounted side by side to form a composite board of uniform appearance.
- D. Assemblies shall be front access only, unless specified otherwise constructed such that doors and covers are flush with one another and aligned to a common vertical plane; manufactured out of mild steel coated with Alu Zinc having the following thickness:
- | | |
|------------------|-----------|
| Plinth/bed frame | - 3.00 mm |
| Frames | - 2.00 mm |
| Covers and Doors | - 2.00 mm |
| Mounting plate | - 3.00 mm |
| Gland Plate | - 3.00 mm |
- E. All except mounting plates shall be Epoxy Polyester Powder coated to BS 4800 shade 18E51 Blue. With a minimum thickness of 0.075 mm. The mounting plate shall be white.
- F. All plastic parts used within the assembly shall be of flame-retardant and self extinguish type and halogen free.

1.3.11.2 Test Specifications and Certifications

- A. **Type Tests:** The LV Assemblies shall be Totally Type Tested by INDEPENDENT and internationally recognized testing authority such as ASTA/KEMA in accordance with clause 8.2 in BS EN 60439-1.
- B. Following tests must be conducted and supported by the relevant certifications.
- Verification of temperature rise limits.
 - Verification of dielectric properties.