

	<ol style="list-style-type: none"> 1. A low-voltage switchgear and control gear assembly is a combination of low-voltage switching devices together with associated equipment (for controlling, measuring, signaling, etc) complete with all internal mechanical and electrical interconnections and structural parts. 2. LT panel to be (Totally Type Tested Assembly) as per IEC: 61439-1 & 2. 3. The sizing of LV boards shall be dependent on conditions such as total load connected to a board, diversity factors for various loads connected, Fault Level and Voltage Regulation Considerations, etc. 4. Short time rating for bus bars, ckt. breakers, current transformers and swgr. assembly is 50kA for 1 second. 5. LT Panel shall also be tested of design as per Seismic Zone Vol IEC 60068-3-3. 6. All switchboard frames and load bearing members shall be fabricated using suitable mild steel structural sections or pressed and shaped cold-rolled sheet steel of thickness 2.0 mm. 7. All switchboards shall be of dust-proof and vermin-proof construction and shall be provided with a degree of protection of IP: 5X as per IS/IEC 60947. However, the busbar chambers having a degree of protection of IP: 42 are also acceptable where continuous busbar rating is 1600A and above. Provision shall be made in all compartments for providing IP: 5X degree of protection when circuit - breaker or module trolley has been removed. All cut-outs shall be provided with EPDM / Neoprene gaskets. 8. Panel shall be rated for Impulse withstand capability equal to or greater than the switchgears inside the panel. 9. The metal enclosed switchgear shall be designed to operate continuously with reference to ambient temperature of 50°C without any de-rating. 10. The Circuit Breakers / Contactors shall be of air break type & should conform to the requirements of IS / IEC 60947. MCCB shall be provided for 100A, 125A, 160A, 250A & 400A supply feeders. The motor feeders for 110kW & above shall be Air Circuit Breaker controlled. 11. For 415V system, busduct assemblies shall be preferred for incoming connection from transformers to the switchboard and interconnecting sections between switchboards wherever transformer rating is 1000KVA or above. 12. LT panel construction shall be Indoor, ACB feeder single front and remaining double front, Draw out type. 13. The FORM of separation is 4B. 14. All ACB feeder in LT Panel shall be draw out type numerical relay.
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18	Control Switch & Station	240 V AC control switch station to be provided with proper enclosure & proper earthing arrangement. (Explosion proof wherever required).