Ground switches have a moving contact that opens or closes a gap between the high voltage conductor and the enclosure. Sliding contacts with appropriate electric field shields are provided at the enclosure and the conductor. A “maintenance” ground switch is operated either manually or by motor drive to close or open in several seconds and when fully closed to carry the rated short-circuit current for the specified time period (1 or 3s) without damage. A fast ground switch has a high speed drive, usually a spring, and contact materials that withstand arcing so it can be closed twice onto an energized conductor without significant damage to itself or adjacent parts. Fast-acting ground switches are frequently used at the connection point of the GIS to the rest of
the electric power network, not only in case the connected line is energized, but also because the fast-acting ground switch is better able to handle discharge of trapped charge and breaking of capacitive or inductive coupled currents on the connected line. Ground switches are almost always provided with an insulating mount or an insulating bushing for the ground connection. In pic show a GIS ground switch.