Earthing switches are mechanical switching devices for earthing parts of a circuit, capable of withstanding for a specified time currents under abnormal conditions such as those of short circuit, but they are not required to carry current under normal conditions of the circuit.

Earthing switches applied to earth these lines shall therefore be capable of performing the following switching operations:
Earthing Switches definition in high voltage conventional substations

* making and breaking of a capacitive current when the earth connection is open at one termination and earthing switching is performed at the other termination;
* making and breaking of an inductive current when the line is earthed at one termination and earthing switching is performed at the other termination;
* carrying continuously the capacitive and inductive currents.

Earthing switches are typically applied in combination with a disconnecting switch but may also be freestanding. The switches are interlocked with the disconnecting switch, or a circuit breaker in the freestanding case, to prevent closing under voltage.