

## **IS/IEC 60898-1:2015 – Circuit Breaker Specifications**

The **IS/IEC 60898-1:2015** standard specifies the requirements for circuit-breakers designed for overcurrent protection in household and similar alternating current (AC) installations. It covers critical aspects such as terminology, classification, construction, marking, and testing procedures to ensure the safety, reliability, and effective operation of circuit-breakers. The standard includes rigorous testing methods for components like screw-type terminals, glow-wire tests, and breaking capacity to ensure that circuit-breakers can handle various electrical conditions safely.

This standard aligns with international practices and is adopted by the Bureau of Indian Standards (BIS), contributing to enhanced electrical safety in India. It provides guidelines on the classification of circuit-breakers based on several factors, defines key rated quantities, and specifies tests to measure durability under both mechanical and thermal stress. Additionally, the standard addresses requirements for circuit breakers with screwless terminals and incorporates a National Annex for BIS certification.

### **Key Insights: -**

**International Alignment:** The standard aligns with global safety practices, ensuring that Indian circuit-breakers meet internationally recognized safety and performance criteria.

**Comprehensive Testing:** It details various tests to assess the durability, mechanical shock resistance, heat resistance, dielectric properties, and performance under short-circuit conditions.

**Terminal Compatibility:** The standard ensures circuit-breakers are compatible with different conductor types by specifying requirements for both screw-type and screwless terminals.

**Marking and Labelling:** Accurate marking and labelling are required for manufacturer accountability and user safety, making it easy to identify and track products.

**National Considerations:** The standard also includes provisions specific to local regulations, helping manufacturers meet both international and Indian compliance requirements.

### **Conclusion:**

**IS/IEC 60898-1:2015** serves as a critical guide for manufacturers of circuit-breakers, ensuring that their products are safe, durable, and compatible with various electrical systems, ultimately contributing to greater safety and reliability in household and industrial electrical installations.