



## **Indian Standard IS 13010: 2022 – AC Watthour meters, Class 0.5, 1 and 2 - Specification**

The standard IS 13010:2002 specifies requirements for alternating current (AC) induction watthour meters (Class 0.5, 1, and 2) designed to measure active electrical energy. These meters, widely used in residential, commercial, and industrial setups, quantify power consumption by recording kilowatt-hours (kWh) over time.

It is expected that AC watthour meters deliver accurate measurements, durability, and operational safety. High accuracy is essential, as billing and energy monitoring depend on precise data, with minimal error influenced by temperature, voltage, or electromagnetic interference.

Additionally, robust construction to withstand environmental factors like dust and moisture, and effective anti-tampering measures, are often desired to maintain meter integrity over its lifespan.

The standard addresses these expectations through defined classes of accuracy (0.5, 1, and 2) that specify acceptable error limits across various loads and environmental conditions. It details requirements for insulation, temperature tolerance, and resistance to electromagnetic interference, ensuring reliable performance under standard conditions. Design and safety standards are also outlined, including requirements for clear labelling, secure sealing to prevent tampering, and specific construction materials to enhance durability and safety.

The standard ensures that AC Watthour meters manufactured in compliance with IS 13010: 2022 meet the highest safety and performance standards. The **BIS mark**, displayed on compliant products, assures consumers that the appliance has undergone stringent testing and meets the safety criteria outlined in the standard. This provides peace of mind, ensuring that the product they are purchasing is both safe and reliable for long-term use.