



IS 302-2-35: 2017- The Guide to Safe Instant Hot Water at your home

The Electric Instantaneous Water Heaters is a modern miracle which, just on turn of tap gives your home instant hot water for bathing, kitchen purpose etc. These water heaters instantly heat water as it flows through the appliance without storing it, operating at a maximum voltage of 250V for single-phase and 480V for other appliances.

When buying electric instantaneous water heaters consumer looks for efficient and rapid heating of water, along with safety, durability, and low maintenance. They look for protection against hazards such as electric shocks, overheating, and leaks. Additionally, durability in both electrical and water systems, as well as resistance to corrosion and temperature fluctuations, are also valued. These heaters should also have energy efficiency and low environmental impact to meet modern consumer standards.

The Indian Standard IS 302: Part 2: Section 35: 2017 outlines safety requirements for electric instantaneous water heaters designed for household and similar uses. IS 302-2-35: 2017 addresses these expectations by mandating rigorous safety and quality standards. The standard includes requirements for the protection against access to live parts, power input and current, heating leakage current and electric strength at operating temperature, moisture resistance mechanical strength, electrical insulation, and temperature control of water heaters. It specifies safety mechanisms such as thermal cut-outs, and moisture resistance ratings (minimum IPX1) to prevent overheating, water leaks, and accidental contact with live parts. The standard further prohibits the use of bare heating elements due to safety concerns, ensuring that only insulated elements are used.

Through comprehensive testing protocols covering electric, thermal, and mechanical aspects, IS 302-2-35: 2017 ensures that instantaneous water heaters meet safety and performance standards even in adverse conditions.