

**IS 13340 (Part 1) : 2024 — Shunt Power Capacitors of the Self-Healing type for AC Systems having a rated voltage upto and including 1000V Part 1 General - Performance, Testing and Rating - Safety Requirements - Guide for Installation and Operation (Second Revision)**

The shunt power capacitors are designed for use in AC power systems, providing reactive power support to improve power-factor efficiency and reduce energy losses. Rated for systems up to 1,000 V and frequencies from 15 Hz to 60 Hz, they are commonly used in industrial and utility networks to enhance voltage stability and increase equipment efficiency.

These capacitors possess self-healing properties, allowing them to recover dielectric strength after minor breakdowns, ensuring consistent operation. Desirable properties include high thermal stability, low dielectric loss ( $\tan \delta$ ), and durability in varied environmental conditions. Key safety features include discharge devices for safe handling and standardized markings for easy installation.

Testing requirements for these capacitors include routine tests for capacitance measurement, dielectric loss angle, voltage withstand between terminals, and discharge device function. Type tests such as thermal stability, lightning impulse, self-healing, and destruction tests further verify durability, safety, and operational reliability