



IS 13585 (Part 1): 2012 - Shunt Power Capacitors of the Non-Self-Healing type for AC systems having a rated voltage up to and including 1 000 V

IS 13585 (Part 1): 2012 is a standard that specifies requirements for **shunt power capacitors of the non-self-healing type for AC systems** with a rated voltage up to and including 1,000 V. **Shunt power capacitors** are electrical components used in AC systems to improve power factor, reduce energy losses, and stabilize voltage levels. These **capacitors** are **non-self-healing**, meaning they do not automatically repair themselves after a fault occurs.

There are various quality parameters in shunt power capacitors mentioned in the standard. Capacitors should effectively **improve power factor** and **reduce energy losses**. Long-lasting components that can withstand repeated use without significant degradation. Capacitors meet **safety standards** to prevent electrical failures and hazards. **High efficiency** in operation, ensuring minimal energy wastage. Materials are **compatible** with various AC systems and environments.

IS 13585 (Part 1): 2012 addresses these expectations by setting specific requirements for the performance, testing, and safety of shunt power capacitors. The standard includes guidelines defining the **types of materials** that can be used, ensuring they meet performance and safety criteria. Outlines tests for **electrical performance, durability, and safety** to verify the quality of the capacitors. Establishes **performance benchmarks** for efficiency, reliability, and compatibility with various AC systems. For instance, the **capacitance** shall not differ from the rated capacitance by more than -5% to +15% for units and banks up to 100 kvar & 0% to +10% for units and banks above 100 kvar. The value of **$\tan \delta$** shall not exceed the value declared by the manufacturer for the temperature and voltage of the test, or the value agreed upon the manufacturer and purchaser.

The **Quality Control Order (QCO)** for **IS 13585 (Part 1): 2012** ensures that shunt power capacitors of the non-self-healing type for AC systems meet specific quality and performance standards. This QCO mandates that manufacturers adhere to the guidelines and requirements set forth in the standard, including material specifications, construction details, and performance criteria.

By adhering to **IS 13585 (Part 1): 2012**, manufacturers can produce capacitors that meet the high standards expected by consumers, ensuring efficient and reliable operation of AC systems.