

IS 374 : 2019- Specification for electric ceiling type fans and regulators

IS 374:2019 defines the requirements for single-phase, 50 Hz AC ceiling fans driven by squirrel cage induction or brushless DC motors. This standard covers fans up to 250V intended for household and similar purposes. It also includes provisions for speed regulators, either manual or remote-controlled, as an optional feature.

Key quality parameters expected by **consumers** for ceiling fans include:

- **Air Delivery:** High airflow to ensure effective cooling.
- **Service Value: Efficiency,** defined as air delivery per watt of electrical power input.
- **Silent Operation:** Minimal noise levels during operation.
- **Safety:** Compliance with electrical safety requirements.
- **Durability:** Endurance over multiple operation cycles without performance degradation.

The IS 374:2019 standard specifies several requirements to ensure quality and safety:

- **Performance Requirements:** Sets minimum air delivery and service value based on fan size to ensure **efficient operation**.
- **Material and Design:** Mandates the use of durable materials for fan blades and motor components to ensure longevity and stable **performance**.
- **Safety Standards:** Aligns with IS 302 for household electrical safety, with additional requirements for insulation, earthing, and safe operation.
- **Silent Operation:** Emphasizes design considerations to minimize operational noise, though specific noise limits are not set.
- **Testing Protocols:** Includes comprehensive tests for power input, fan speed, power factor, endurance, and harmonic distortion for BLDC fans, ensuring fans meet performance and safety benchmarks before they reach consumers.