

IS 2312:1967
Propeller Type a.c. Ventilating Fans

This standard covers Propeller Type a.c. Ventilating Fans such as exhaust fans, wall fans, window fans, gable-end fans, port-hole fans, bulk-head fans, kitchen fans and dark room fans for use at voltages not exceeding 250 V single-phase or 440 V three-phase, and their associated speed regulators, if any. It does not cover indirectly driven fans.

Enclosures of the fan motor shall be totally enclosed type and Enclosures of the fan regulators shall be either of the ventilated type or the totally-enclosed type.

Stampings of fan motors shall be made from electric steel sheet. Preferred fan sizes are 200mm, 300mm, 380mm, 450mm, 600mm, 900mm, 1200mm and 1500mm with a tolerance of ± 5 mm.

The motor of the fan of a particular size and model and its associated regulator and set of blades shall be interchangeable such that the performance of the fan keeps within limits specified in this standard. Components of a particular model and size of fan, its associated regulator (of any) and set of blades shall be interchangeable.

Precautions shall be taken in the manufacture of fans and regulators to ensure a reasonable degree of silence at all speeds.

The standard specifies following major performance and safety tests: Starting, Air delivery, Temperature-rise, Moisture Proofness (for regulators only), Mechanical endurance (for regulators only), Power factor, ac leakage, Test for capacitor, High voltage, Insulation-resistance, Earthing continuity, Electrical input, and Fan speed.

This results in better performance, reduced risk of failure, and improved fan performance and consumer safety.