

CHAPTER 9

AC motors

Answers to revision questions

1. A squirrel cage is the rotor of an AC induction motor. It consists of parallel aluminium bars that have their ends embedded in a metal ring at each end. The squirrel cage is covered by laminated soft iron sheets.
2. AC must be used. The changing nature of AC is essential in creating the rotating magnetic field in the stator.
3. (a) There is less wear and tear because there is minimal contact between the rotor and the stator.
(b) It is simple to design and cheap to make because there is no commutator.
4. (a) The speed of an AC induction motor is limited by the frequency of the AC power – it's not that fast!
(b) It can only operate on AC.
5. A lot of household devices use AC induction motors. A fan is one example.