

Chapter 11a

1. Explain how a three-phase stator produces a rotating magnetic field.
2. Explain how current is generated in the rotor of a squirrel-cage rotor.
3. Explain why the squirrel-cage rotor revolves in the same direction as the rotating magnetic field of the stator.
4. Explain why interchanging any two of the three line leads to a three-phase squirrel-cage motor causes it to run in the opposite direction.
5. Explain why a two-pole machine runs at a higher speed than a four-pole machine when both are connected to the same three-phase service.
6. What two methods are used to change the speed of a three-phase squirrel-cage induction motor?
7. What is the purpose of a consequent-pole connection?
8. What factors determine whether or not a squirrel-cage induction motor can be started at full line voltage?