

Chapter 11b

1. Define breakdown torque, locked-rotor torque, and pull-up torque as they pertain to squirrel-cage induction motors. Which NEMA-design motor develops the greatest locked-rotor torque?
2. Sketch a generalized torque-speed characteristic of a squirrel-cage motor. Mark and label the four significant points.
3. State the difference in construction details between the squirrel-cage rotor and the wound rotor as used in induction motors.
4. What are the advantages of the wound-rotor motor over the squirrel-cage motor? State an application for a wound-rotor motor.
5. State three methods that can be used for adjusting the speed of a wound-rotor motor.
6. State the correct procedure for (a) starting a wound-rotor induction motor; (b) reversing a wound-rotor motor.
7. On a single sheet of graph paper, sketch and label the torque-speed characteristics of design A, B, C, D, and E motors. State an application for each.
8. What are the three basic types of multi-speed motors? State an application for each.
9. What information is provided by the code letter on an induction-motor nameplate?