

Chapter 23/24

1. What factors determine the useful life of electrical insulation?
2. What is the reference temperature used by manufacturers to determine the maximum allowable temperature rise for motors?
3. What effect does excessive temperature have on the life of electrical insulation? What is the ten-degree half-life rule?
4. What is insulation resistance? What instruments are used to measure it, and how are they used?
5. What effect does capacitance have on the indicated values of insulation resistance? Explain.
6. What effect does absorbed moisture have on the measured values of insulation resistance?
7. What effect does the temperature of a machine have on the measured values of insulation resistance?
8. Can electrical equipment be damaged as a result of a megger test? Explain.
9. An insulation-resistance test of an AC motor indicates ∞ on the megger scale. Does this mean that the insulation resistance is infinite? Explain.
10. Why should a large machine be grounded for several minutes before an insulation-resistance test is made?
11. What is the 60-second insulation-resistance test? Of what use is it in a preventive maintenance program?
12. What is the recommended minimum value for insulation resistance of a 200-hp, 2300-V, three-phase induction motor?