

- b) the temperature rise of the windings under load [$^{\circ}\text{C}$].
- c) The total copper losses in the stator under load [watts]
- d) Is the temperature rise of the motor acceptable?
- e) If the motor is overheating what could be the cause?

References

Electrical Machines, Drives and Power Systems, 5th edition
Sections 6.8, 6.9, Example 13-7.

Answers to Problem 3

- a) 171°C b) 139°C c) 1918 W d) the temperature rise is too high; it should not exceed 120°C .
- e) Obstructed ventilation ducts.

Solution to Industrial Problem 3

don't peek until you've tried hard to answer the questions by yourself !