

18 An electric railway locomotive has a maximum mechanical output power of 4.0 MW. Electrical power is delivered at 25 kV from overhead wires. The overall efficiency of the locomotive in converting electrical power to mechanical power is 80%.

What is the current from the overhead wires when the locomotive is operating at its maximum power?

A 130 A

B 160 A

C 200 A

D 250 A

19 Which statement defines the density of a substance?