

- 24** A square wire loop of area 0.025 m^2 connected in a closed circuit has a resistance of $2.0 \times 10^{-3} \Omega$. The loop is situated in a magnetic field of uniform flux density 0.70 T directed perpendicular to its plane. When the field is switched off, the flux density decreases to zero at a uniform rate in 0.80 s .

What is the energy dissipated in the loop during this time?

A 0.0219 J

B 0.191 J

C 0.239 J

D 8.75 J

