20 A car travels at a constant speed of $25\,m\,s^{-1}$ up a slope. The wheels driven by the engine exert a forward force of 3000 N. There is a drag force due to air resistance and friction of 2100 N. The weight of the car has a component down the slope of 900 N.

What is the rate at which thermal energy is dissipated?

A zero **B** $2.3 \times 10^4\,W$ **C** $5.3 \times 10^4\,W$ **D** $7.5 \times 10^4\,W$