2 The kinetic energy E_K of a rotating solid sphere is given by the following expression

$$E_k = \frac{2\pi^2 I}{T^2}$$

where I is the moment of inertia and T is the period of rotation of the solid sphere.

What is the unit for the moment of inertia I, expressed in SI base units?

A kg m^2 s^{-1}

B kg m^2

C J s^2

D N m s^2