16 An electric motor is required to haul a cage of mass 400 kg up a mine shaft through a vertical height of 1200 m in 2.0 minutes. 20% of the total power output of the motor is used in overcoming friction, and 80% is used in raising the cage.

What is the total power output of the motor?

A   4.0 kW   B   5.0 kW   C   39 kW   D   49 kW