An electric motor lifts an elevator 9.0 m in 15.0 s exerting an upward force of 12,000 N. What power does the motor produce in kw?

Solution:

$$\text{Power} = \frac{\text{work done}}{\text{time}} = \frac{F \times l}{t} = \frac{12000 \times 0.9}{15} = 7200 \text{ W}$$

Answer: 7200 W