

EFFICIENCY PRACTICE

1. A lift is able to carry a load of 1800 kg at a velocity of 1.65 m/s [up]. Given that the motor driving the lift has an input power of 33 kW, calculate the efficiency of the lift.
2. 10 000 J of chemical energy is consumed by a crane to lift a 50.0kg box 18 m straight up. What is the crane's efficiency?

3. A microwave rated at 800 W heats 0.25 L of water. If the water's temperature rises by 40 °C in 90 seconds, what is the microwave's oven efficiency?

4. The efficiency of a 300 W heater is 85%. At what rate is the heat energy produced?