

22 A steady current I dissipates a certain power in a variable resistor. When a sinusoidal alternating current is used, the variable resistor has to be reduced to one quarter of its initial value to obtain the same power. What is the peak value of the alternating current?

A $\sqrt{2}I$

B $2I$

C $2\sqrt{2}I$

D $4\sqrt{2}I$