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Electrical calculations

$$i = 1.00000e + 01$$

$$rp = 5.00000e + 00$$

$$rres = \frac{1.00000e+00}{\left(\frac{1.00000e+00}{rp} + \frac{1.00000e+00}{rp}\right)} = \frac{1.00000e+00}{\left(\frac{1.00000e+00}{5.00000e+00} + \frac{1.00000e+00}{5.00000e+00}\right)} = 2.50000e + 00$$

$$u = i \cdot rres = 1.00000e + 01 \cdot 2.50000e + 00 = 2.50000e + 01$$

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Power from current and resistance

$$power = i^{2.00000e+00} \cdot rres = 1.00000e + 01^{2.00000e+00} \cdot 2.50000e + 00 = 2.50000e + 02$$

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Power from voltage and resistance

$$power2 = \frac{u^{2.00000e+00}}{rres} = \frac{2.50000e+01^{2.00000e+00}}{2.50000e+00} = 2.50000e + 02$$

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