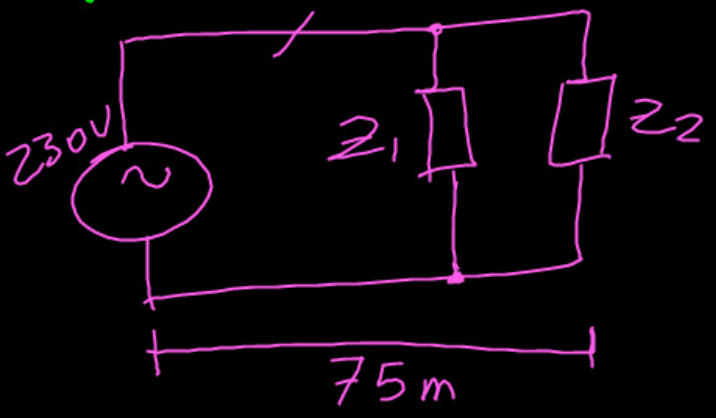
TROV. SEZIONE E PROTEZ.



$Z_1 \Rightarrow P_1 = 1{,}5\,kW$

$\eta_1 = 0.95$

$\cos\varphi_1 = 0.98$

$Z_2 \Rightarrow P_2 = 2{,}5\,kW$

$\eta_2 = 0{,}87$

$\cos\varphi_2 = 0{,}9$

$P_{A_1} = 1578\,W$

$P_{A_2} = 2873\,W$

$P_A = \frac{P_u}{\eta_n}$

$I_1 = \frac{P_{A1}}{V \cdot \cos\varphi} = \frac{1578}{230 \cdot 0{,}98}$

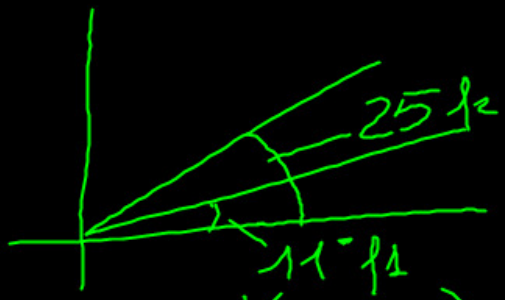
$Q_1 = P_{A1} \cdot tg\,\varphi_1 =$

$= 307\ VAR$

$= 1578 \cdot tg\,11°$

$1578 : 0{,}19$

$Q_2 = 1340\ VAR$



$f1 = \cos^{-1}(0{,}98)$ ①

$= 11°$

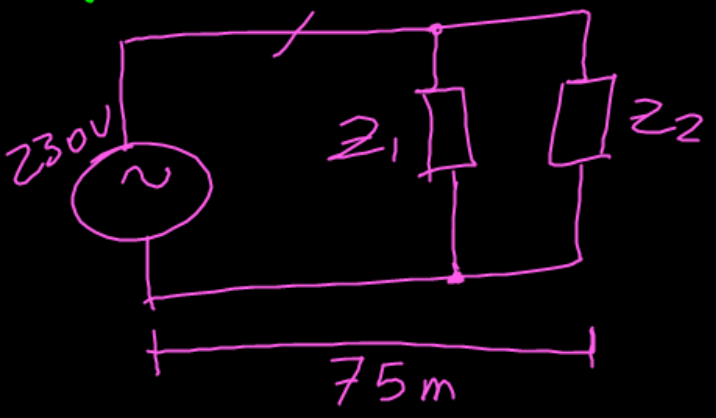
$f2 = \cos^{-1}(0{,}9)$

② $= 25°$

$\frac{P}{Q} = \frac{V \cdot I \cdot \cos\varphi}{V \cdot I \cdot \sin\varphi} = \frac{1}{tg\,\varphi}$

$Q = P \cdot tg\,\varphi$

TROV. SEZIONE E PROTEZ.



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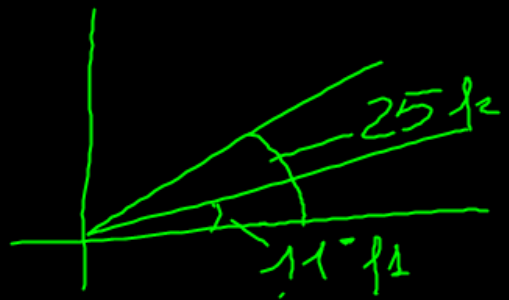


$S_T = 4746\,VA$

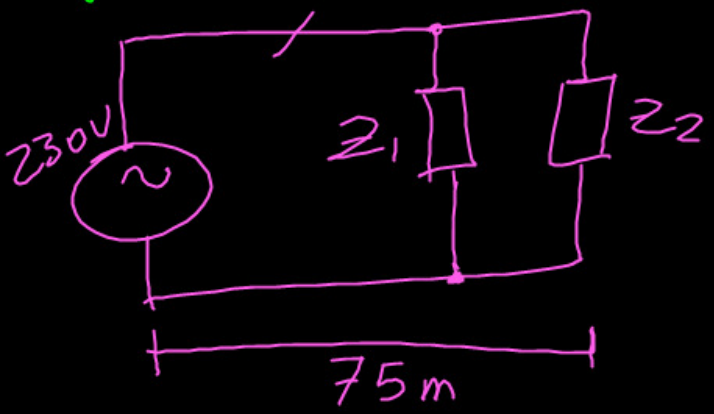
$$S_T = \sqrt{(P_{A_1} + P_{A_2})^2 + (Q_1 + Q_2)^2}$$

$$= \sqrt{(4451)^2 + (1647)^2}$$

$$= \sqrt{19811401 + 2712609}$$

$$= \sqrt{22524010} \rightarrow 4746\,VA$$

TROV. SEZIONE E PROTEZ.



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$\eta_1 = 0.95$

$\cos\varphi_1 = 0.98$

$Z_2 \Rightarrow P_2 = 2,5\,kW$

$\eta_2 = 0,87$

$\cos\varphi_2 = 0,9$

$P_{A_1} = 1578\,W$

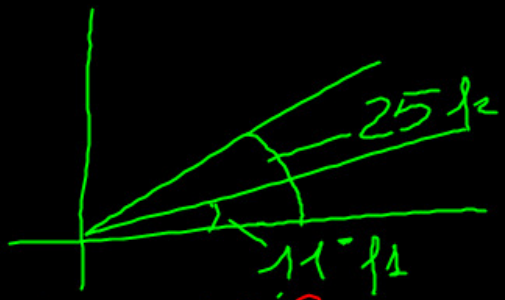
$P_{A_2} = 2873\,W$

$P_A = \frac{P_u}{\eta_n}$

$Q_1 = 307\,VAR$

$Q_2 = 1340\,VAR$

$S_T = 4746\,VA$ FIOR



$S = 10\,mm^2$ $\Delta V = \frac{4 \times 230}{100}$ $\Delta V < 9,2$

$I_B = \frac{P}{V} = \frac{4746}{230} = 20,6\,A$

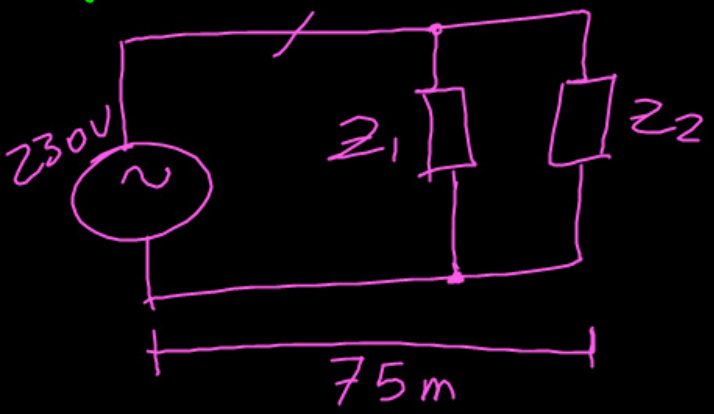
$S = 4\,mm^2$ $I_Z = 24\,A$ PVC TIPO DI FILO

$R_F = 0,0212 \cdot \frac{\ell}{S} \rightarrow 0,0212 \cdot \frac{150}{10}$

$= 0,318\,\Omega$

$\Delta_V = 0,318 \cdot 20,6 = 16,15\,V$

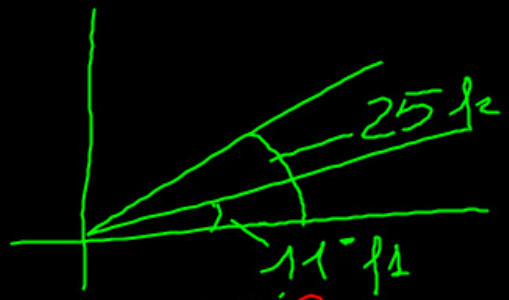
TROV. SEZIONE E PROTEZ.



$P_{A_1} = 1578\,W$

$P_{A_2} = 2873\,W$

$P_A = \frac{P_u}{\eta_n}$



$Q_1 = 307\,VAR$

$Q_2 = 1340\,VAR$

$S_T = 4746\,VA$ FIOR

$Z_1 \Rightarrow P_1 = 1,5\,kW$

$\eta_1 = 0.95$

$\cos\varphi_1 = 0.98$

$S = 10\,mm^2$

$\Delta V = \frac{4 \times 230}{100}$

$\Delta V < 9,2$

$I_B = \frac{S_T}{V} = \frac{4746}{230} = 20,6\,A$

$Z_2 \Rightarrow P_2 = 2,5\,kW$

$\eta_2 = 0,87$

$\cos\varphi_2 = 0,9$

$I_B < I_N < I_Z$

20A 25A 46A

25A C