

TRANSMISSION AND DISTRIBUTION OF ELECTRICAL ENERGY

GROUP TASK

Report

Team members:

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Output Values :

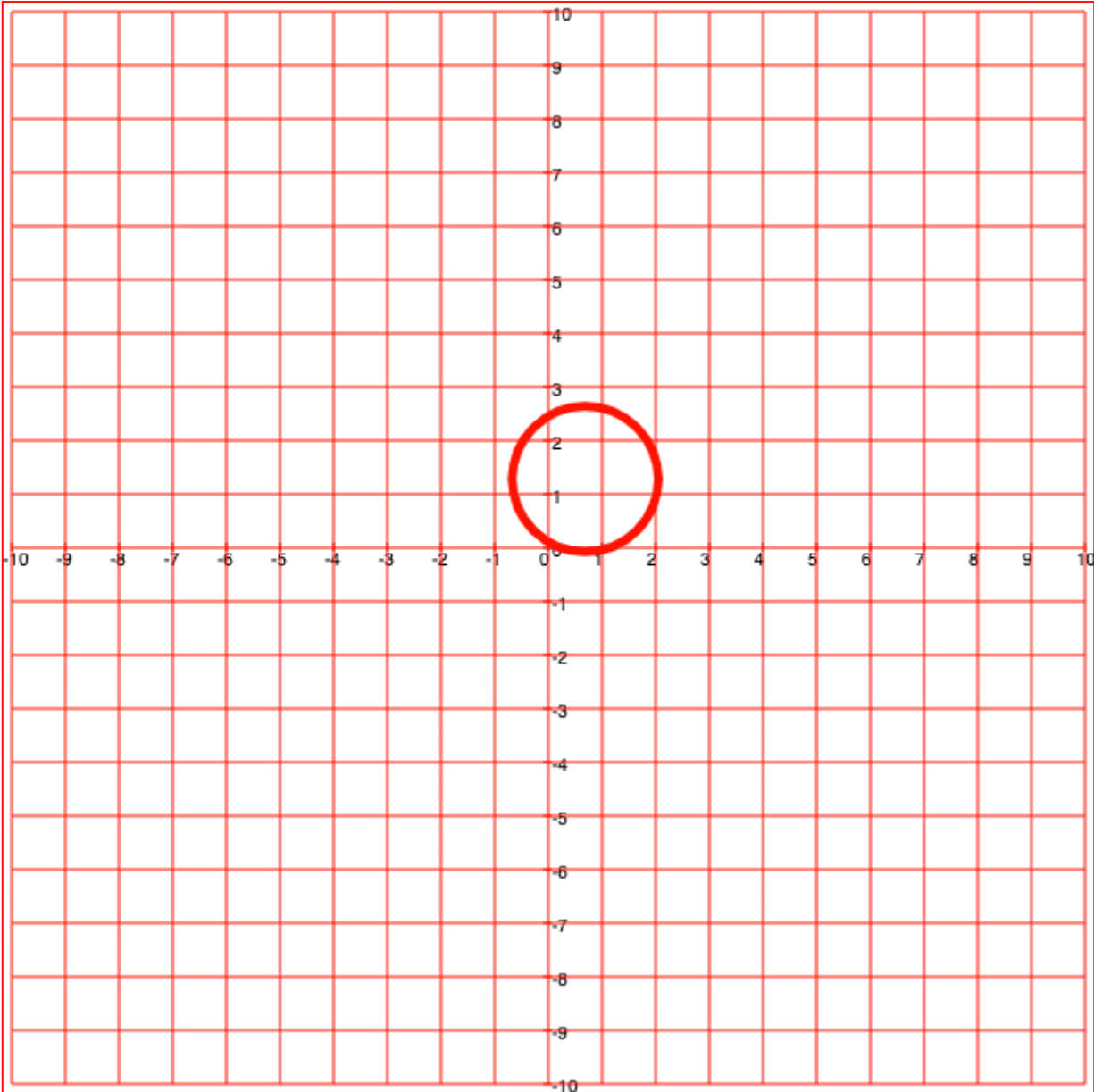
- 1. Inductance per phase per km in H/km : 0.0008969485539959657
- 2. Capacitance per phase per km in F/km : 1.257988960932634e-8
- 3. Inductive reactance of the line in Ohm : 28.178
- 4. Capacitive reactance of the line in Ohm : 2530.307
- 5. Charging current : 25.099135353086034
- 6. ABCD parameters of the line :

$$A = D = 0.9944318091296955 + 0.002964066658472265i$$
$$B = 15 + 28.178469878817136i$$
$$C = -5.857127437244625e-7 + 0.0003941085885358567i$$

- 7. Sending end voltage in kV : 118.36835218925707
- 8. Sending end current in A : 172.383
- 9. Percentage voltage regulation : 8.209
- 10. Power loss in the line in MW : 1.337
- 11. Transmission efficiency : 95.733
- 12. Sending end circle diagram :

Label:
X-AXIS - P(in W)
Y-AXIS - Q(in VAR)

Scale:
1 unit = 10⁸



13. Receiving end circle diagram :

Label:
X-AXIS - P(in W)
Y-AXIS - Q(in VAR)

Scale:
1 unit = 10^8

