

Resistive Complex Impedance (9:33)

Identify how voltage and current relate for resistive, capacitive, and inductive elements.

Identify features of resistive complex impedance and how to calculate resistive complex impedance.

Identify features of capacitive complex impedance and how to calculate capacitive complex impedance.

Identify features of inductive complex impedance and how to calculate inductive complex impedance.

Identify the units employed to measure complex impedance. Identify the means of distinguishing between resistive, capacitive, and inductive complex impedances.

Calculate the complex impedance of a 220Ω resistor at an excitation frequency of 60Hz . Express your answer in polar format.

Calculate the complex impedance of a 470Ω resistor at an excitation frequency of 50Hz . Express your answer in polar format.

Calculate the complex impedance of a $1.2\text{k}\Omega$ resistor at an excitation frequency of 400Hz . Express your answer in polar format.