Single Phasing (34:03)

Identify reasons why a 3 phase AC system may become imbalanced.

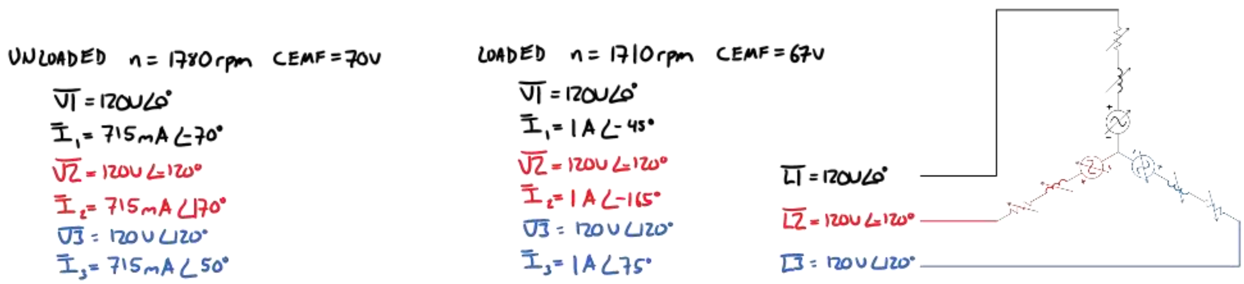
Define the term “single phasing”. Identify what events might cause single phasing.

Describe the mechanical and electrical consequences of a 3 phase AC motor single phased at stand still.

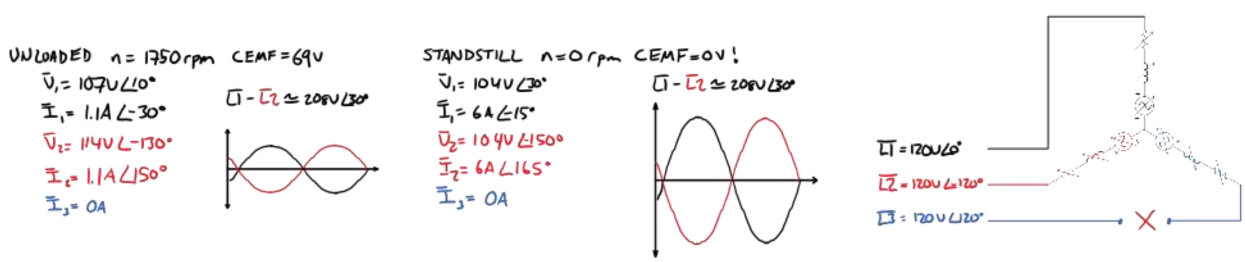
Describe the mechanical and electrical consequences of an <u>unloaded</u> 3 phase AC motor single phased while in the act of rotating.

Describe the mechanical and electrical consequences of a <u>loaded</u> 3 phase AC motor single phased while in the act of rotating.

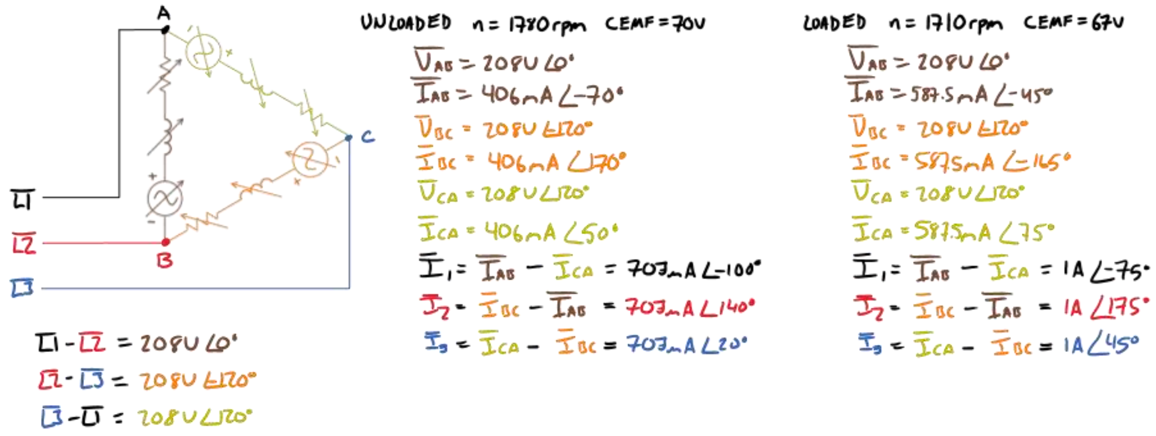
Given this data and model of a 3 wire Y configured motor in the balanced condition explain why it experiences less CEMF and more current in the loaded condition.



Given this data and model of a 3 wire Y configured motor while being single phased in the running and standstill condition explain how current flows through this system. Explain how voltage is apportioned in this system. Predict which winding(s) might be damaged.



Given this data and model of a delta configured motor in the balanced condition explain why it experiences less CEMF and more current in the loaded condition.



Given this data and model of a delta configured motor while being single phased in the running and standstill condition explain how current flows through this system. Explain how voltage is apportioned in this system. Predict which winding(s) might be damaged.