

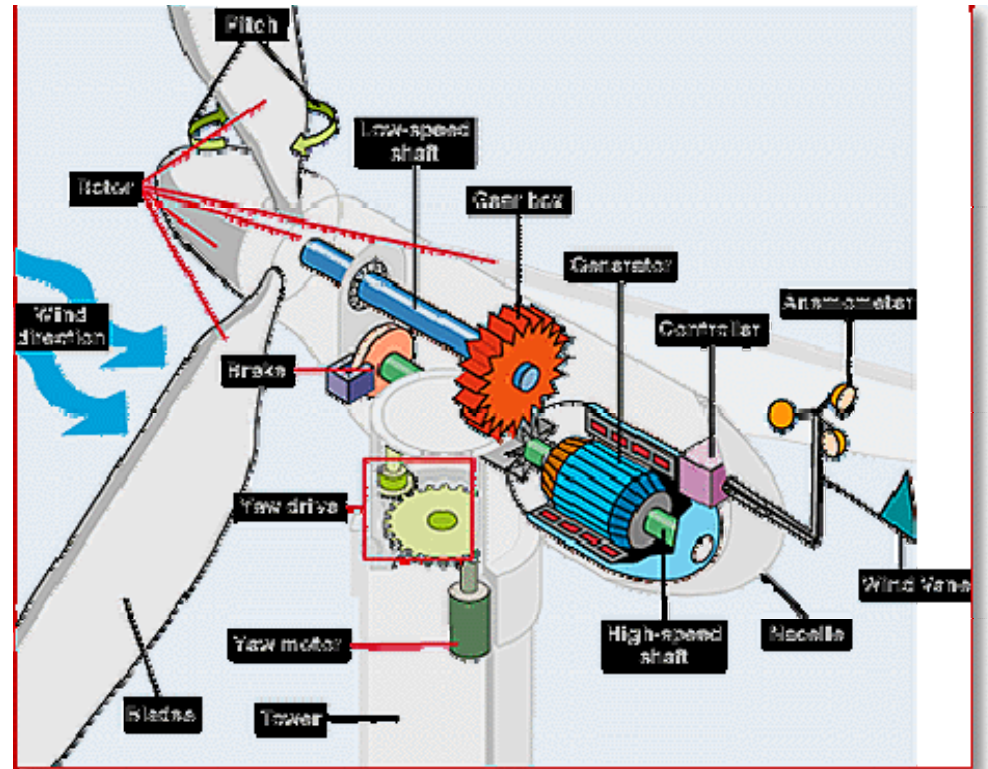
ME/ESE 4470

Wind and Tidal Power

Electricity Generation

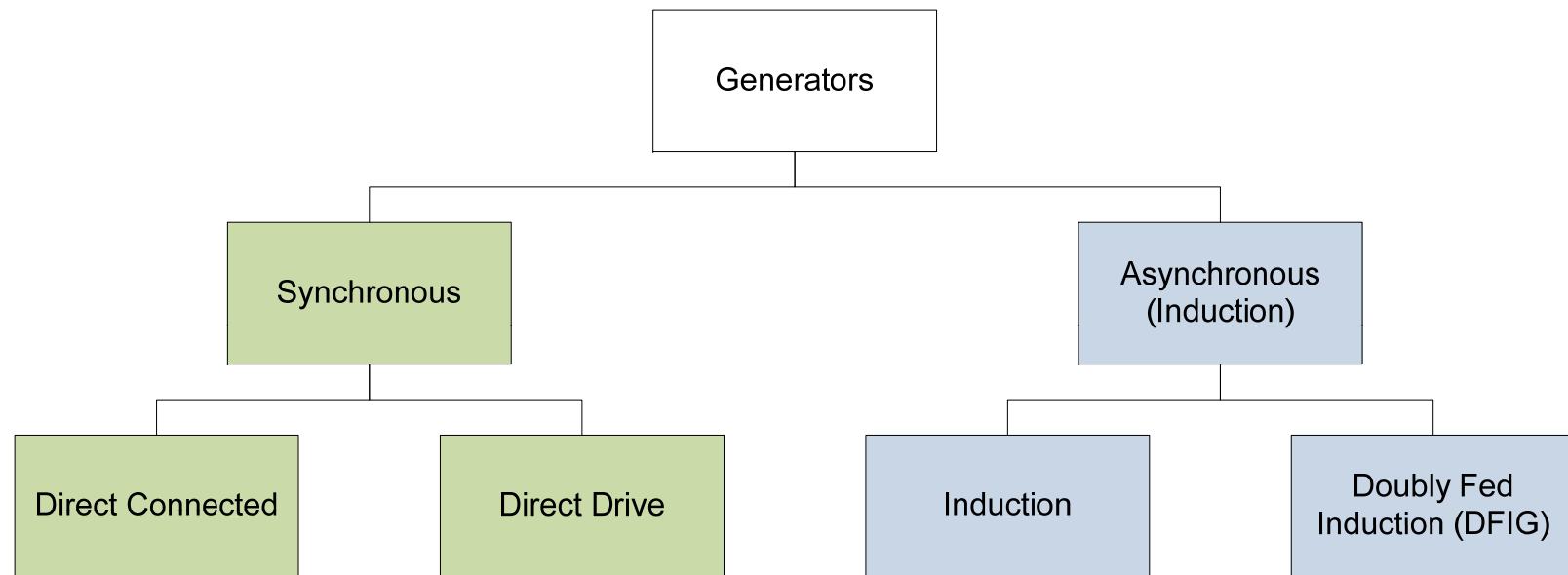
Wind Turbine Electricity Generation

A. Introduction



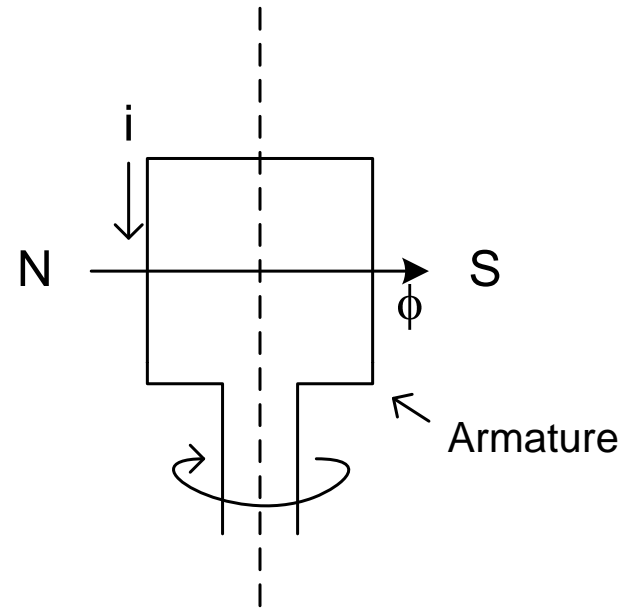
Wind Turbine Electricity Generation

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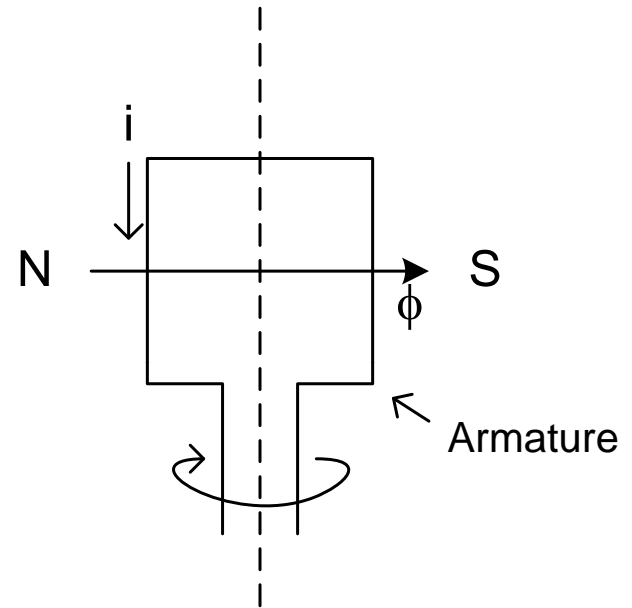
Wind Turbine Electricity Generation

B. Simple Electrical Machine



Wind Turbine Electricity Generation

B. Simple Electrical Machine



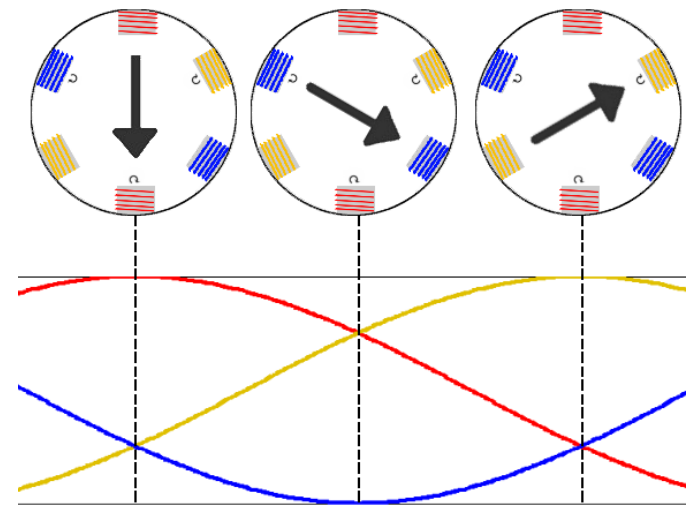
Wind Turbine Electricity Generation

B. Simple Electrical Machine

1. Real Machines vs. Simple Machine

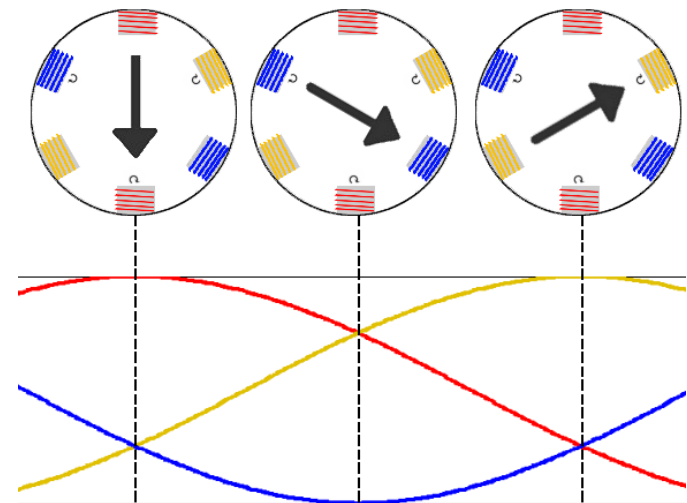
Wind Turbine Electricity Generation

- B. Simple Electrical Machine
 - 2. Rotating Magnetic Field



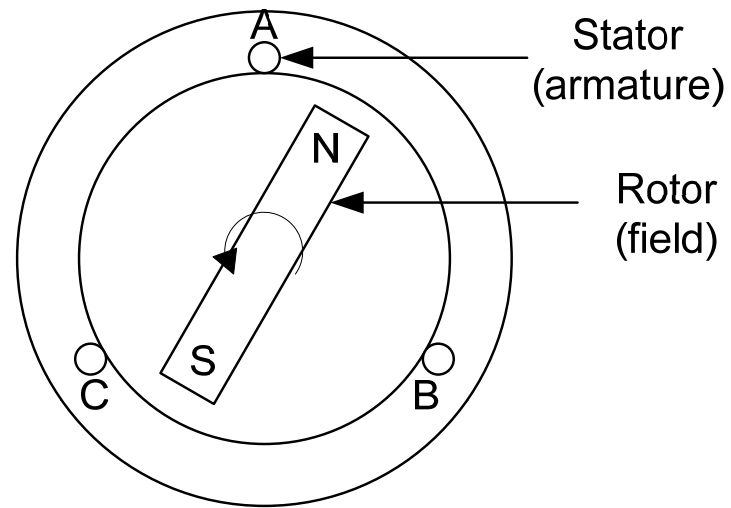
Wind Turbine Electricity Generation

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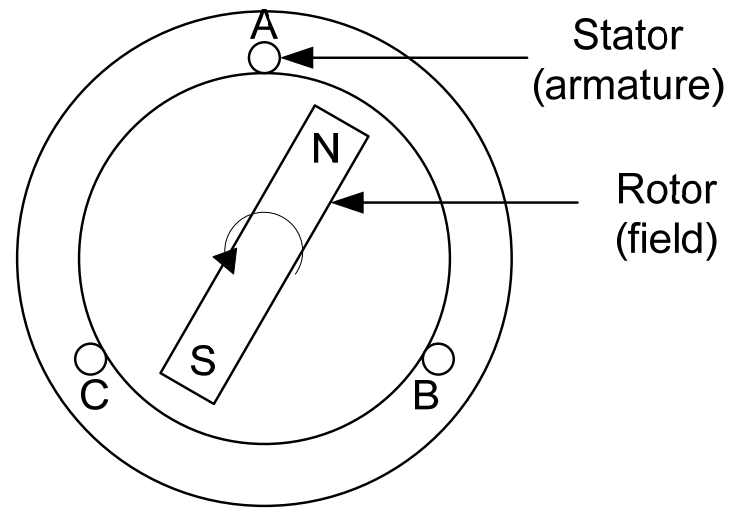
Wind Turbine Electricity Generation

C. Synchronous Generator



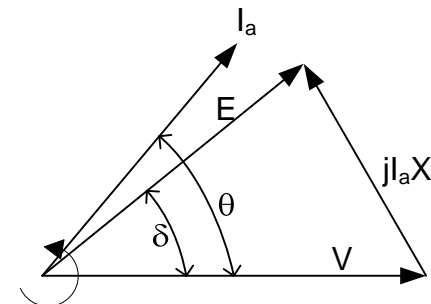
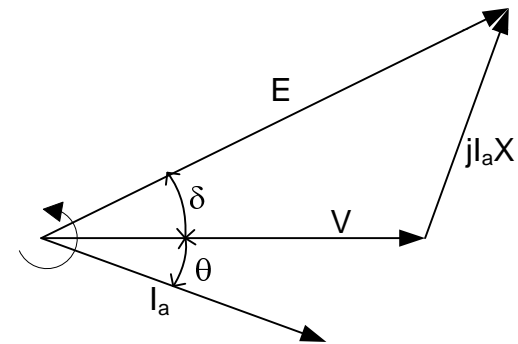
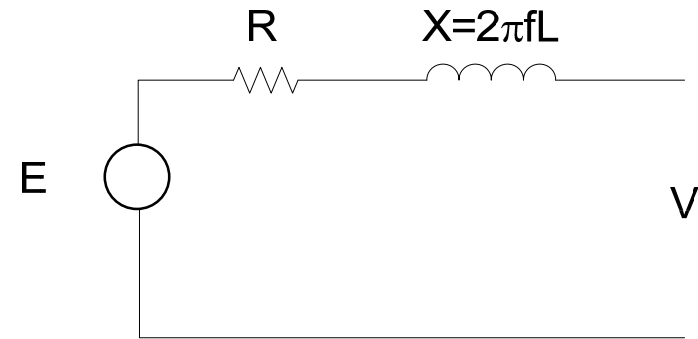
Wind Turbine Electricity Generation

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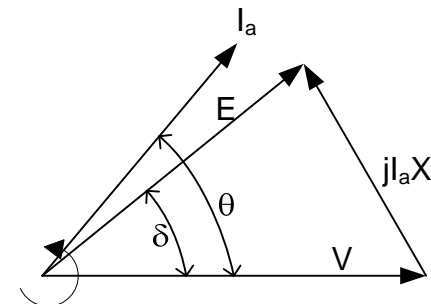
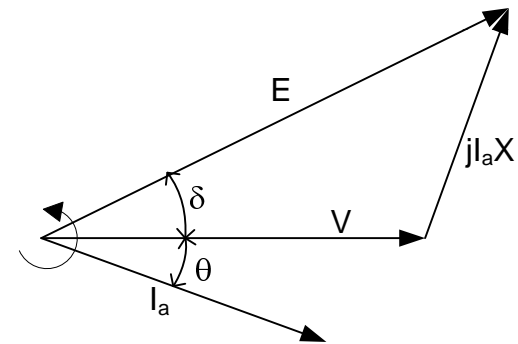
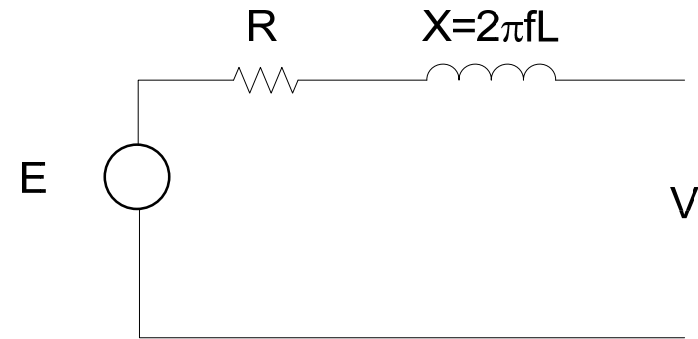
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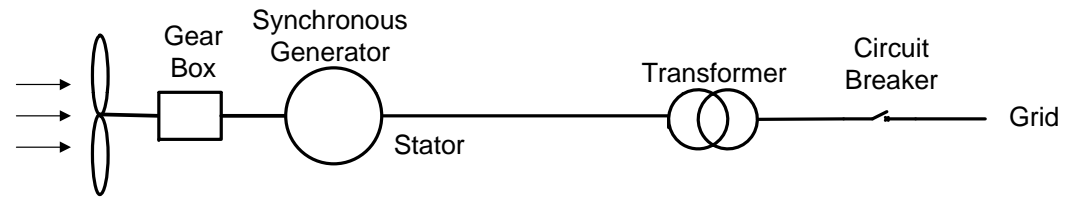
C. Synchronous Generator



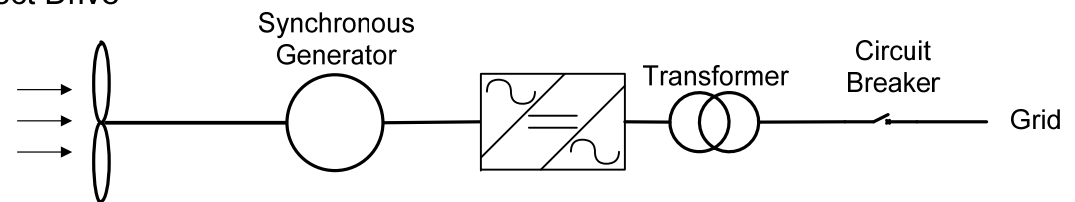
Wind Turbine Electricity Generation

C. Synchronous Generator

Synchronous –
Direct Connected

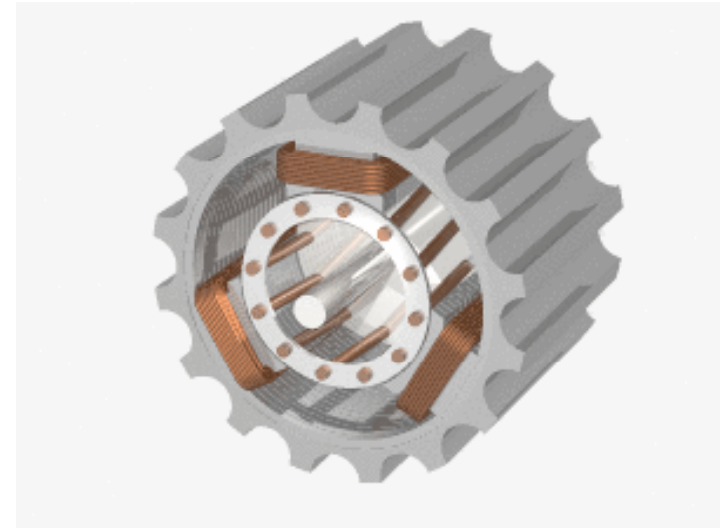


Synchronous
– Direct Drive



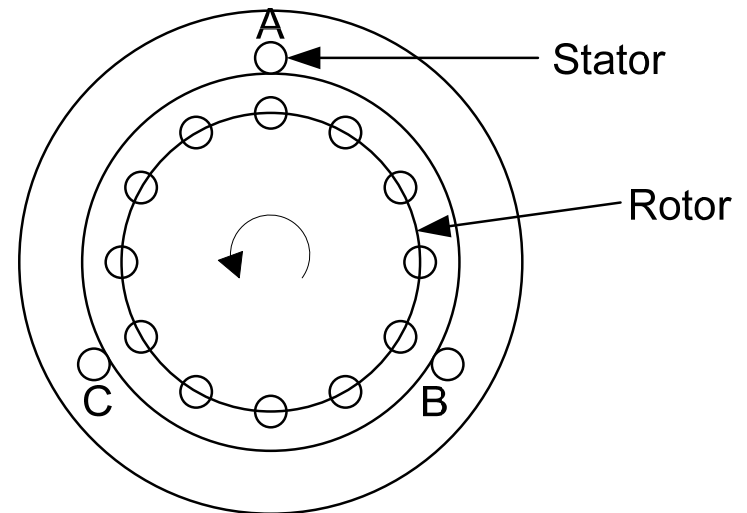
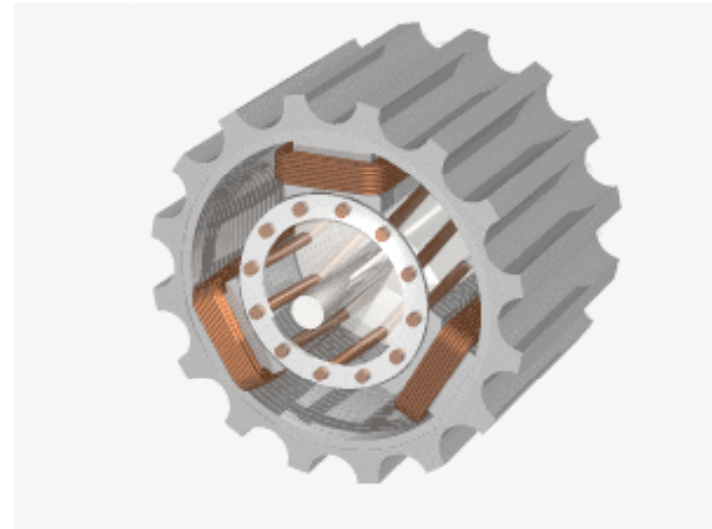
Wind Turbine Electricity Generation

D. Induction Generator



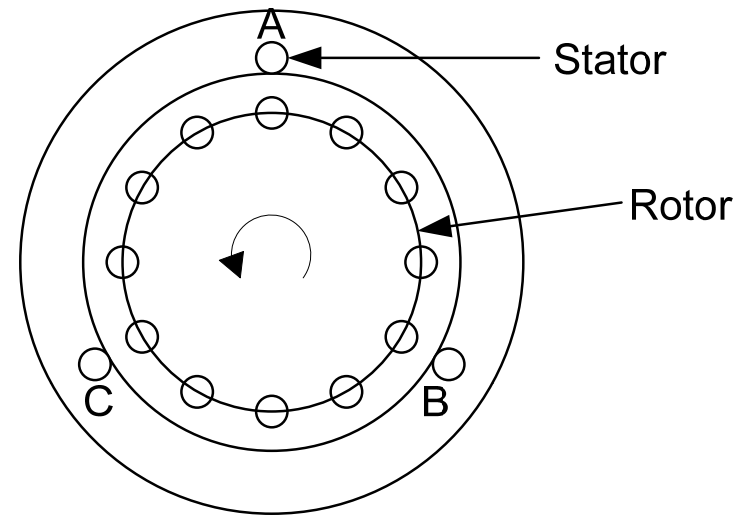
Wind Turbine Electricity Generation

D. Induction Generator



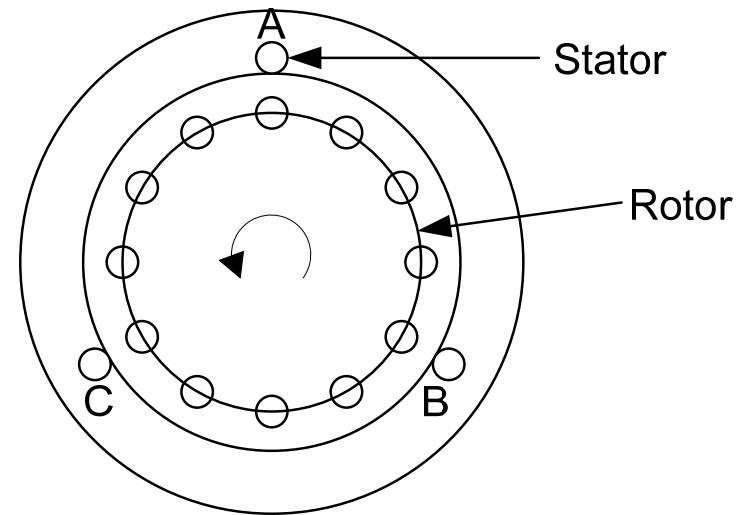
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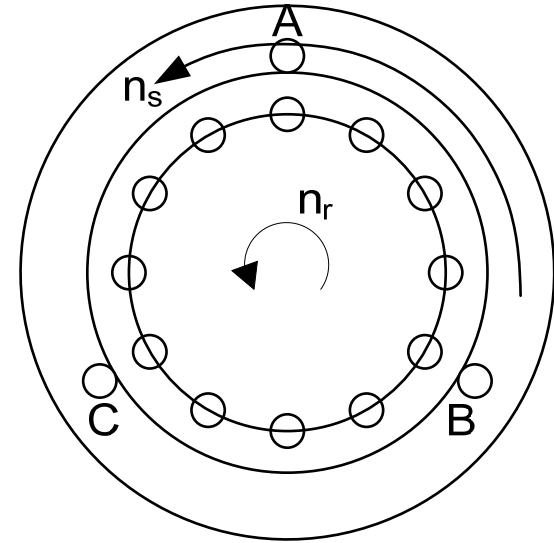
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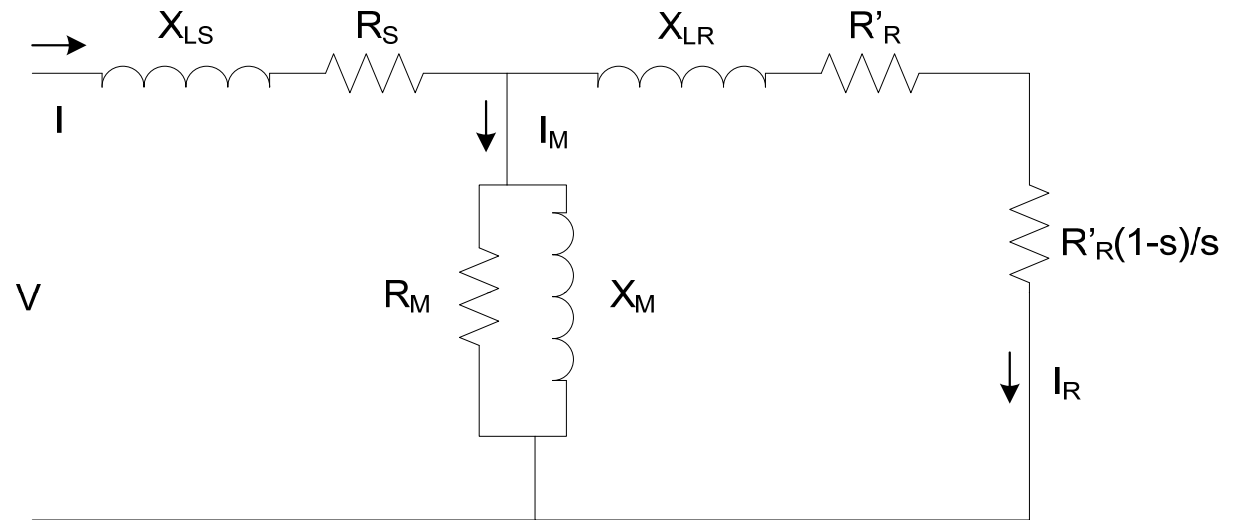
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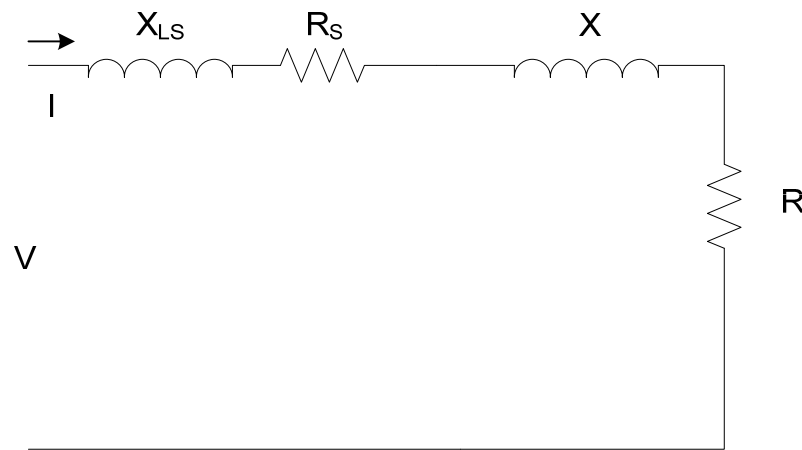


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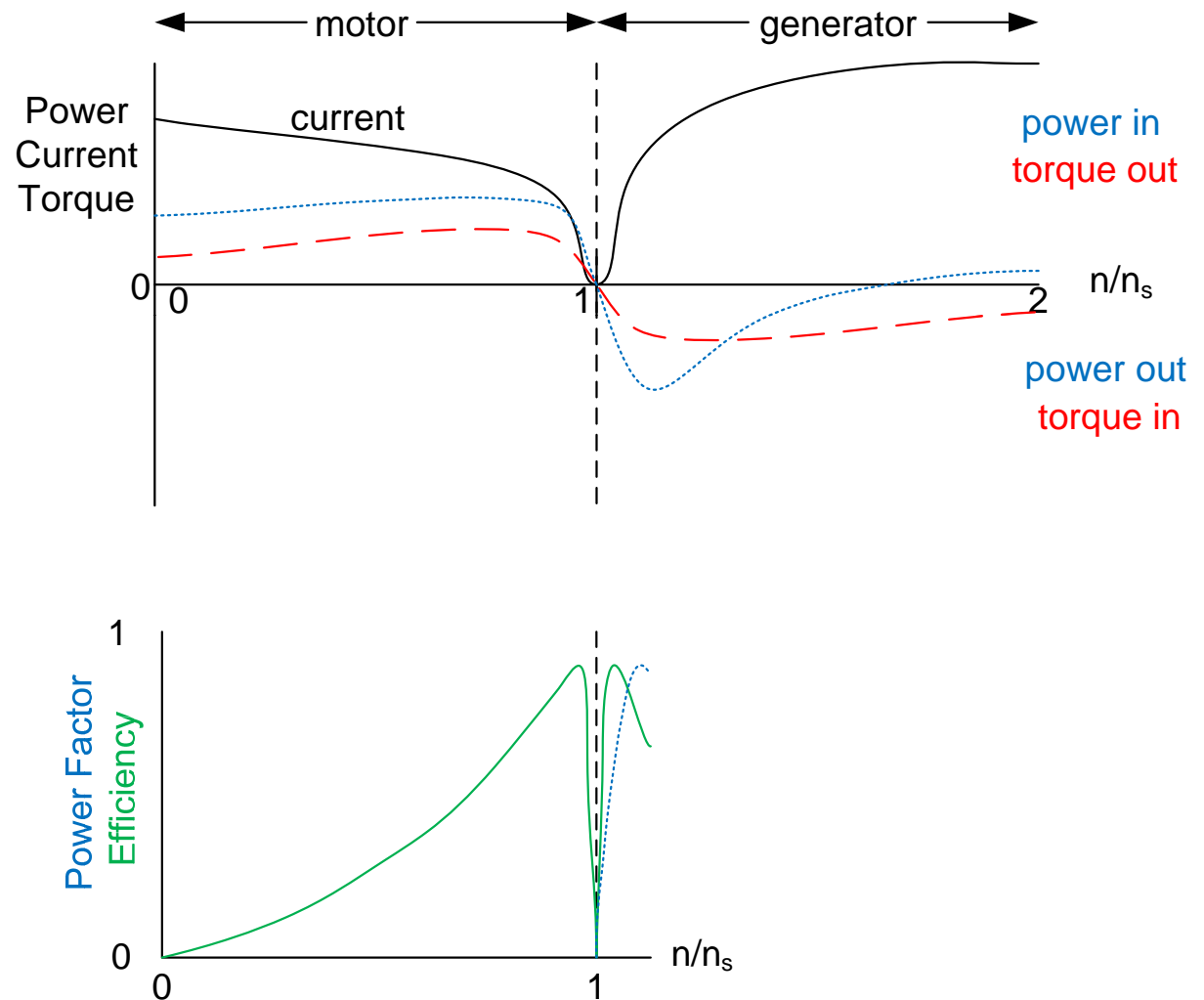
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