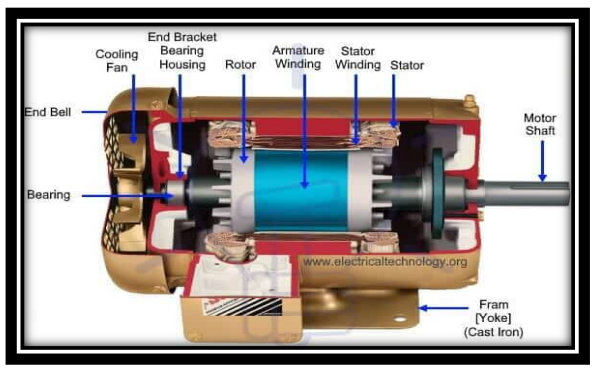
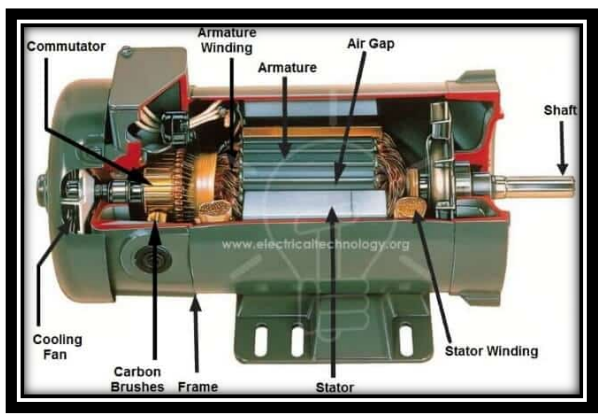
Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology

AC Motors

AC Motor has **many flexible features and has a larger installed base** as compared to DC Motors. Some of their features are:

- AC Motors demand **low power on start.**
- The starting current in AC motors can be **controlled**.
- They are also **highly flexible in speed control**.
- They have **adjustable torque limits**.
- The operational speeds of AC motors can be **adjusted**.
- They have **controlled acceleration** while working.
- They can **reduce power line disturbances**.





DC Motors

DC Motors were the first type of motors that were commonly used due to their **low initial costs which included drives and motors** as compared to AC motors. However, for high power situations, the total **maintenance costs of the system arose**. Some of the features of DC motors are:

- The speed of the DC motor can be **controlled by varying the voltage** supplied.
- They can be **easily installed**.
- Their **speed-torque curve is linear**.
- They can be **started, stopped, reversed, or accelerated** quickly.
- DC motors **provide speed control** for a wide range.
- They have a **high starting torque**.

Types of Motors

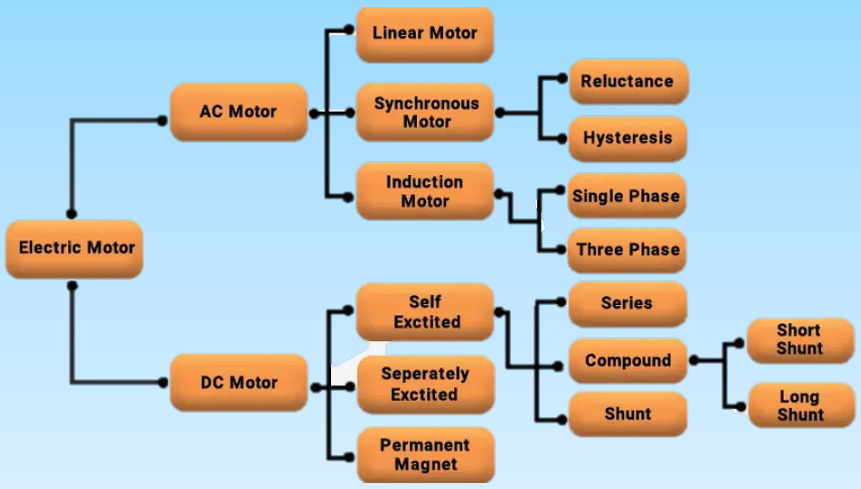
AC motors demand low power initially and are flexible for speed control, DC motors, however, can be easily installed and have low initial costs of power units and thus are widely used. The AC and DC motors can further be classified as:

AC Motors

- **Synchronous Motors**
- **Asynchronous Motors (Induction)**

DC Motors

- **Brushless**
- **Brushed**



Application of DC and AC motor

AC Motors

- Home Appliances
- Compressor drives and systems
- Computers
- Conveyor systems
- Fans and air conditioners
- Hydraulic and irrigation pumps
- Transportation equipment

DC Motors

- Fabrication and production of industrial units
- Machinery having high and constant power need
- Warehouse sorting devices

Made by Pranay Singhvi, Yusuf Sodawala, Yoshita Singh, Khushi Soni