Synch Generators

Per-Phase Equivalent

Effect of system (or load) power factor:

- **Lagging**
  - Over-excited
  - $|\tilde{E}_A| > \text{rated voltage}$

- **Unity**
  - $|\tilde{E}_A| = \text{rated voltage}$

- **Leading**
  - Under-excited
  - $|\tilde{E}_A| < \text{rated voltage}$