

Special Electrical Machines

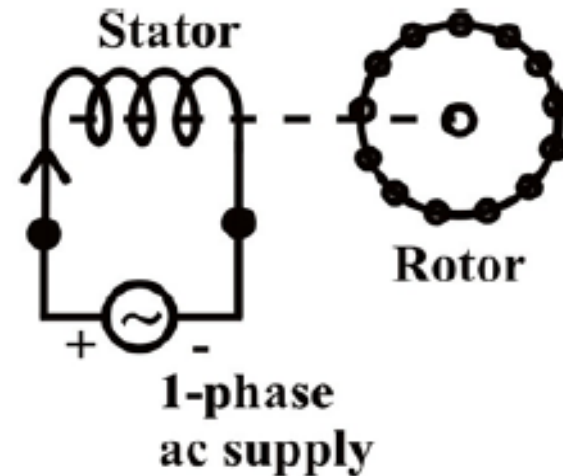
UNIT-II

Single phase Induction Motors

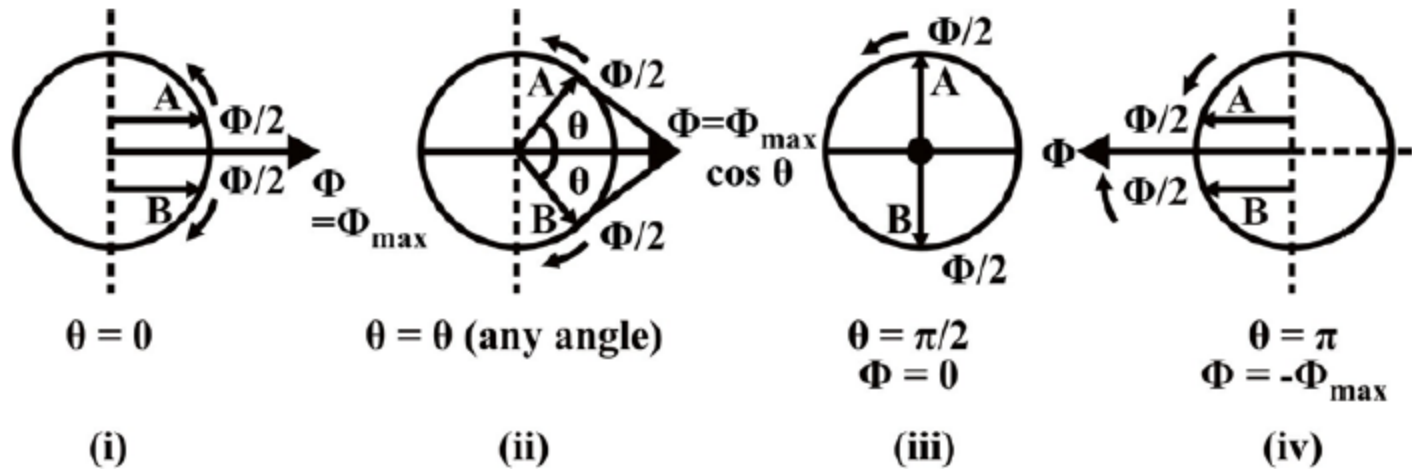
- Construction,
- Starting characteristics
- Applications

Single-phase Induction Motor

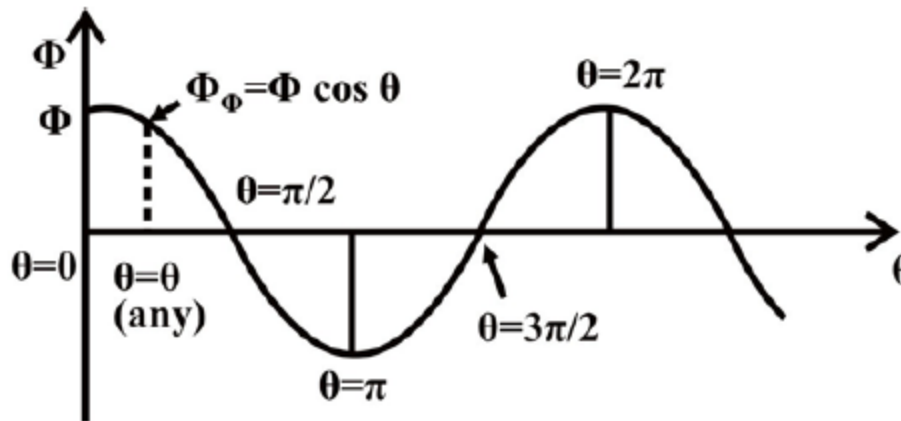
- Winding used is a distributed one
- Rotor is of squirrel cage type, which is a cheap one
- rating of this type of motor is low, unlike that for a three-phase IM.
- As the stator winding is fed from a single-phase supply,
- the flux in the air gap is alternating only, not a synchronously rotating one produced by a poly-phase (may be two- or three-) winding in the stator of IM.
- This type of alternating field cannot produce a torque (),
- Not Self Start



Double field revolving theory



Position of the pulsating and rotating in fluxes with change in angle (θ)



Pulsating (sinusoidal) flux as a function of space angle (θ)

THANKS....

Queries Please...