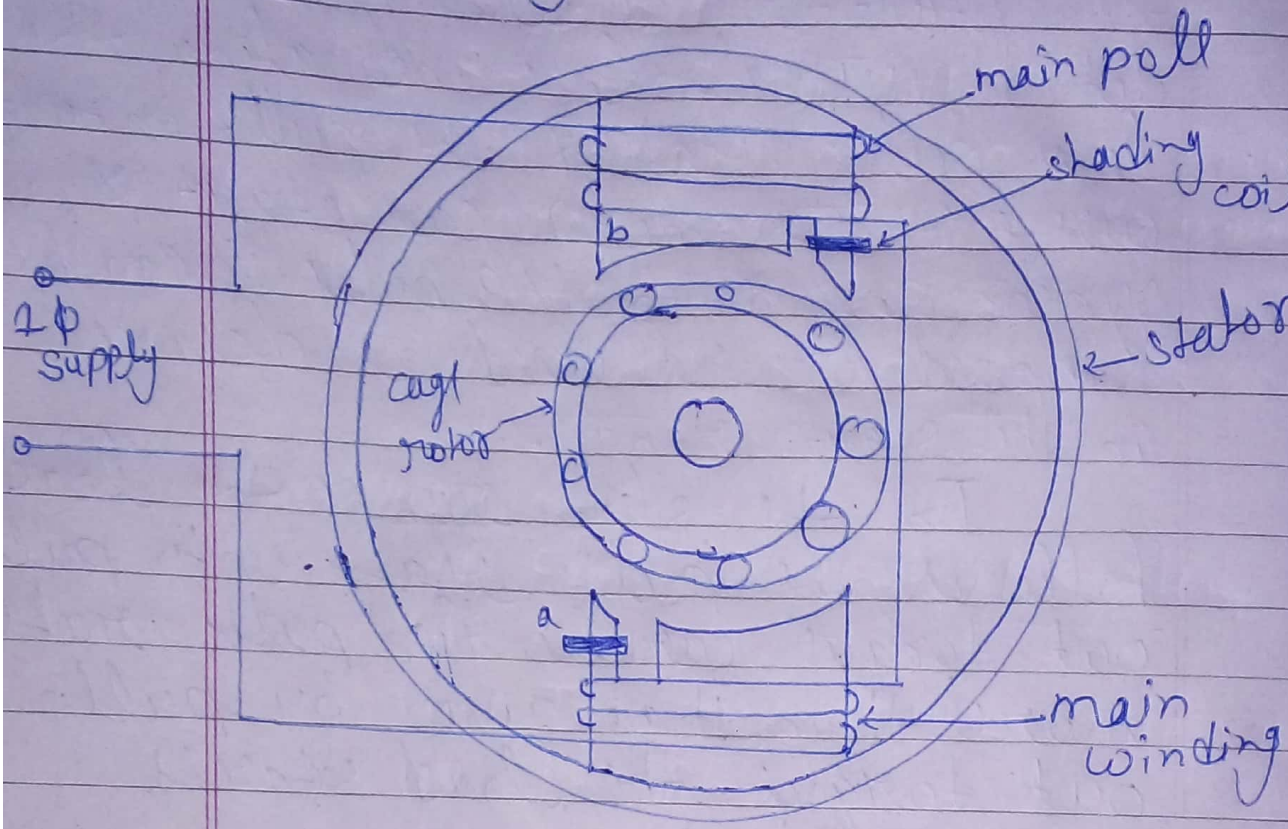
Shaded Pole motor -

A shaded pole motor is a simple type of self-starting 1ϕ I.M. It consists of a stator & a cage-type rotor.

The stator is made up of Salien pole. Each poles is slotted on side and a copper ring is fitted on the smaller part. This is called shaded pole. The ring is usually

a single-turn coil & is known as shading coil.



When alternating current flow in the field winding, an alternating flux is produced in field core. A portion of this flux links with shading coil which behaves a s.c secondary of transformer.

At the same time, the main flux & the shaded pole flux are displaced in space. This space displacement is less than 90°.

Since, there is time & space displacement b/w the two fluxes, & conditions for setting up a

rotating magnetic field are produced.
In a shadded-pall motor the reversal of direction of rotation is not possible.