



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

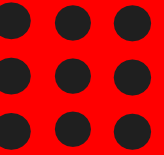
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME : 23EET01 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING

I YEAR /II SEMESTER ARTIFICIAL INTELLIGENCE & DATA SCIENCE

Unit 2 – Electrical Machines

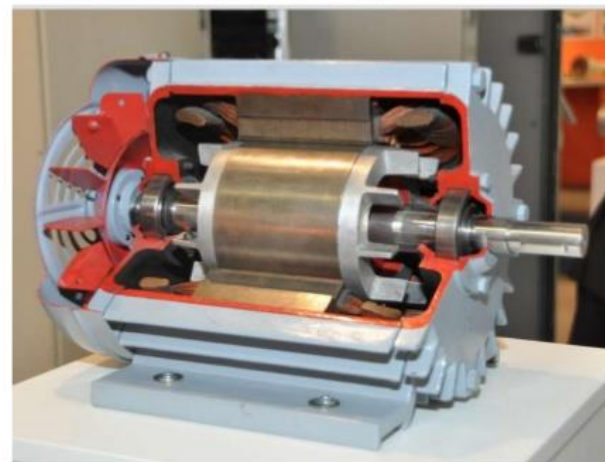
Single Phase Induction Motor





SINGLE PHASE MOTOR

- Why do we need motors?
- What action motor do?
- How can I create the motor?
- Why motor rotates in circular motion?



1

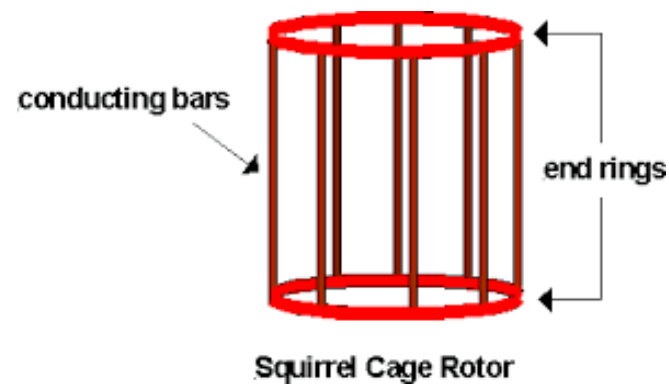
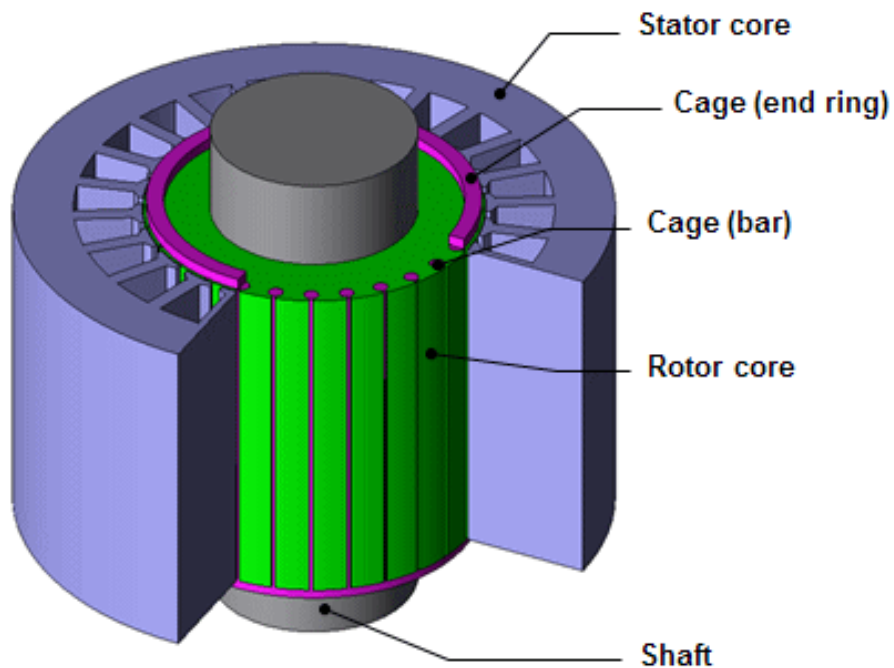


PARTS OF MOTOR



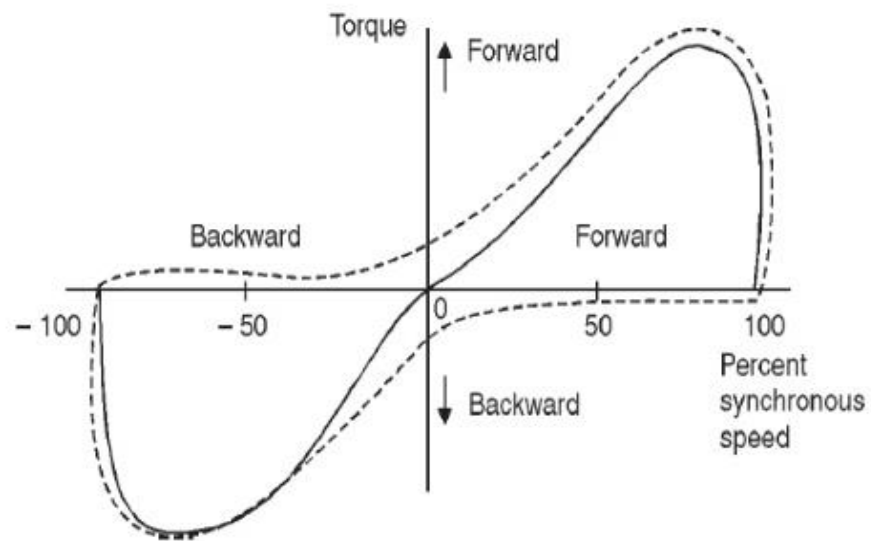
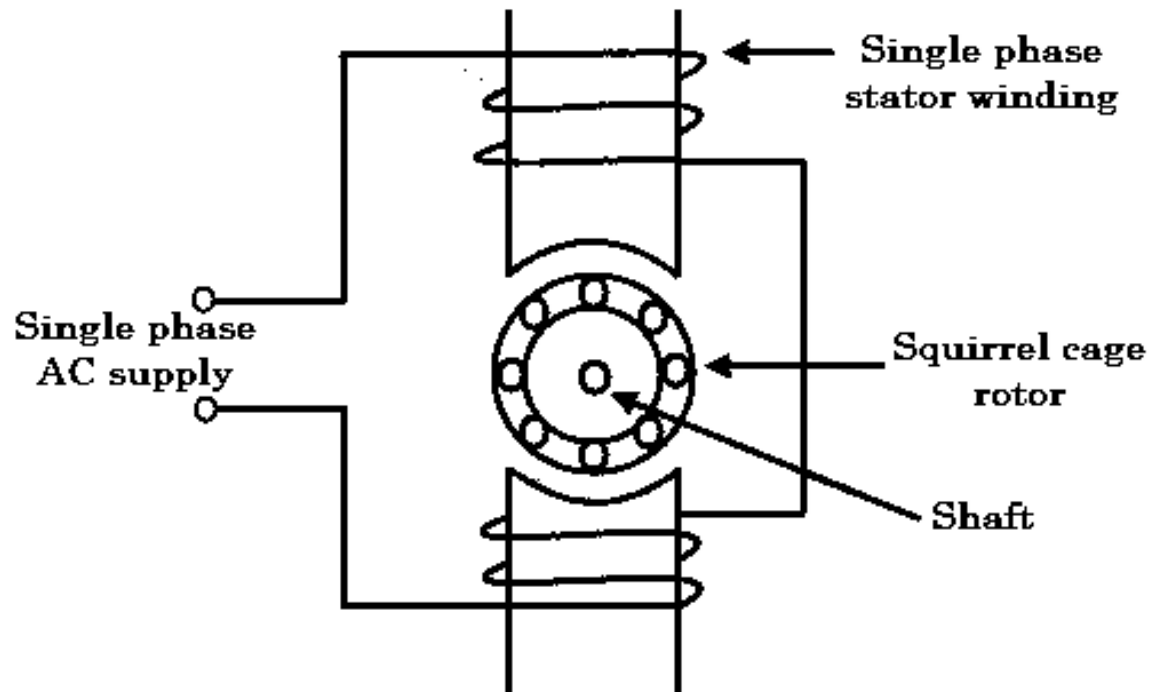


CONSTRUCTION OF 1 PH IM





WORKING PRINCIPLE





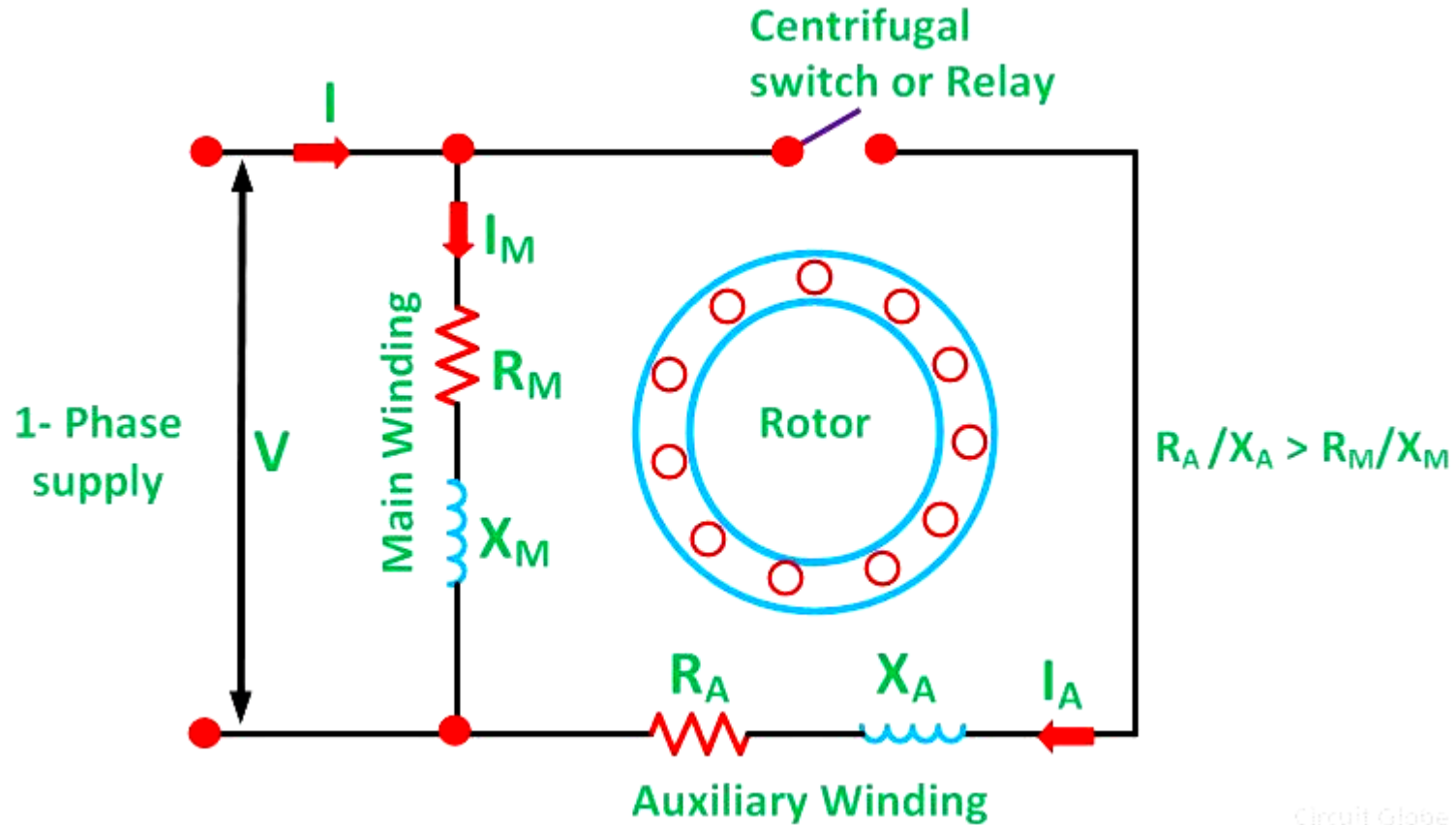
ASSESSMENT 1

1. The torque developed by a single-phase motor at starting is
 - A.less than the rated torque
 - B.More than the rated torque
 - C.zero
 - D.None of the above



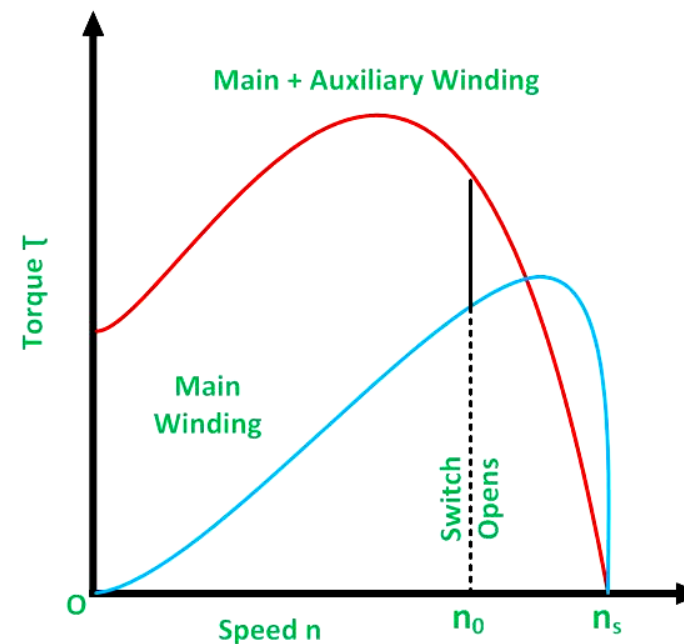
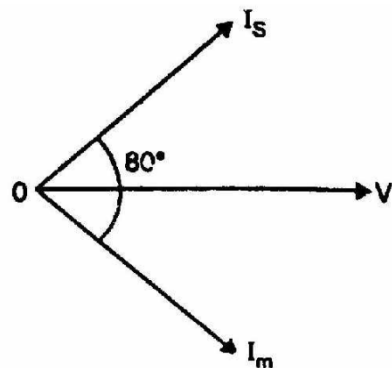
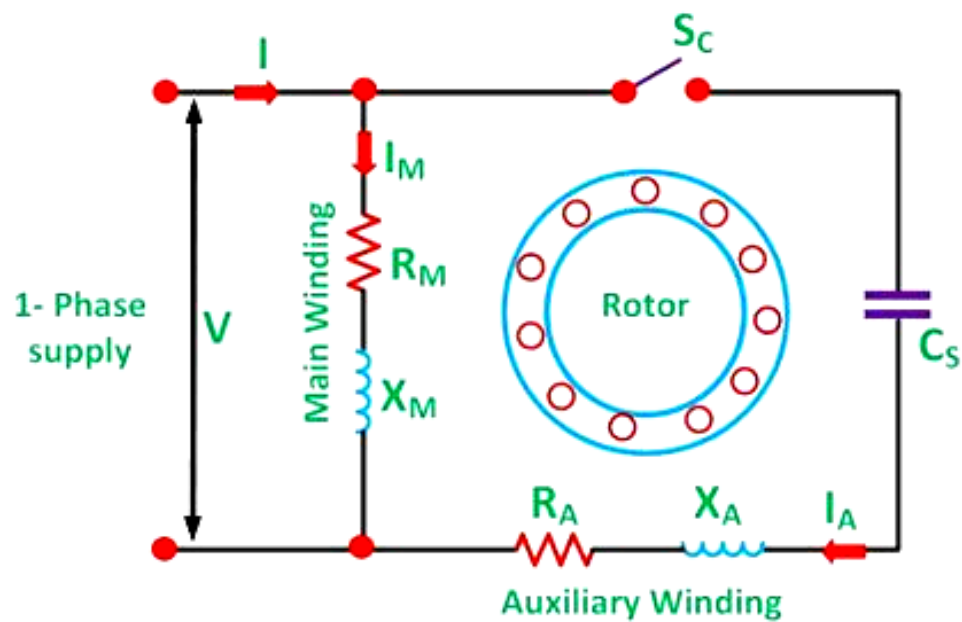


SPLIT PHASE IM





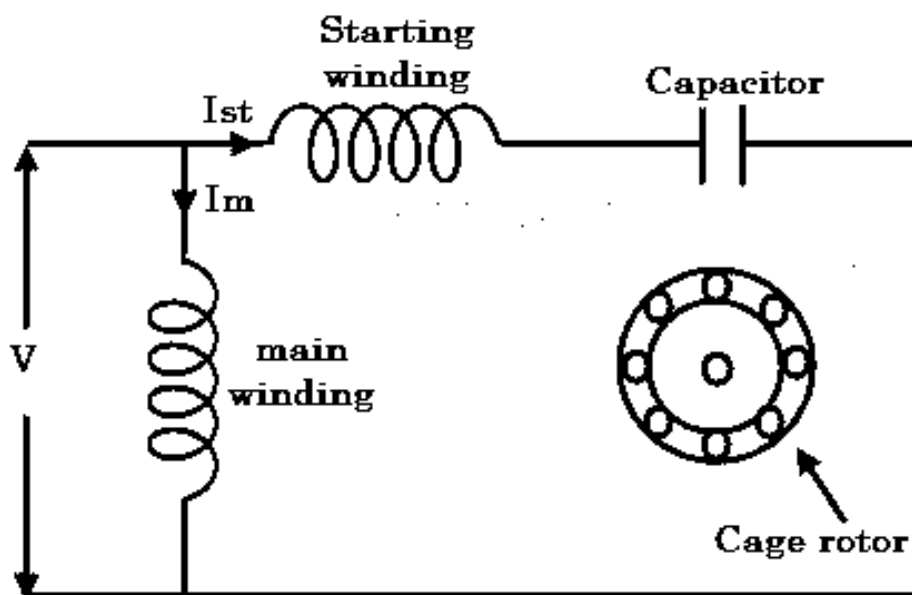
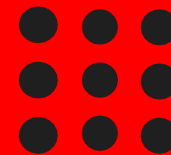
CAPACITOR START IM



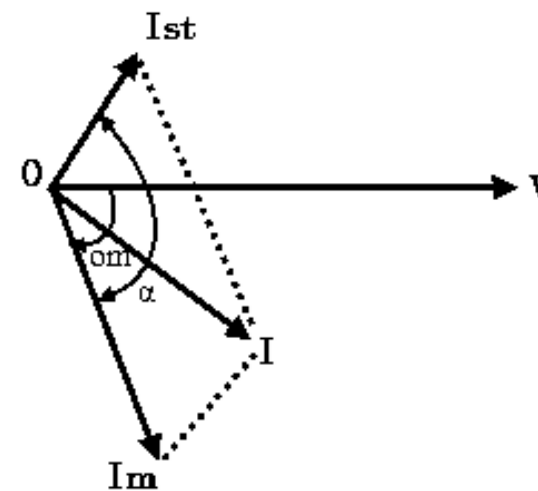
Circuit Globe



CAPACITOR RUN IM



Circuit diagram of capacitor run motor

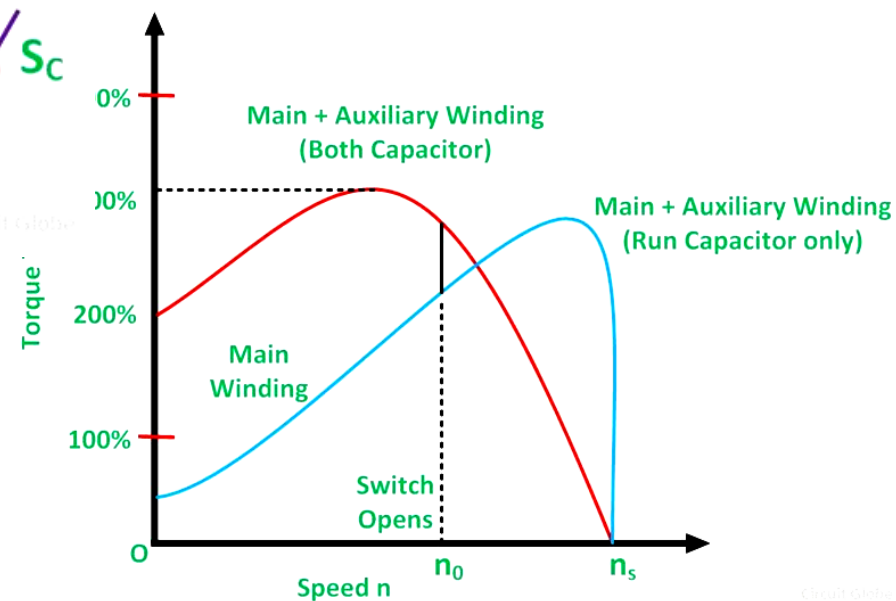
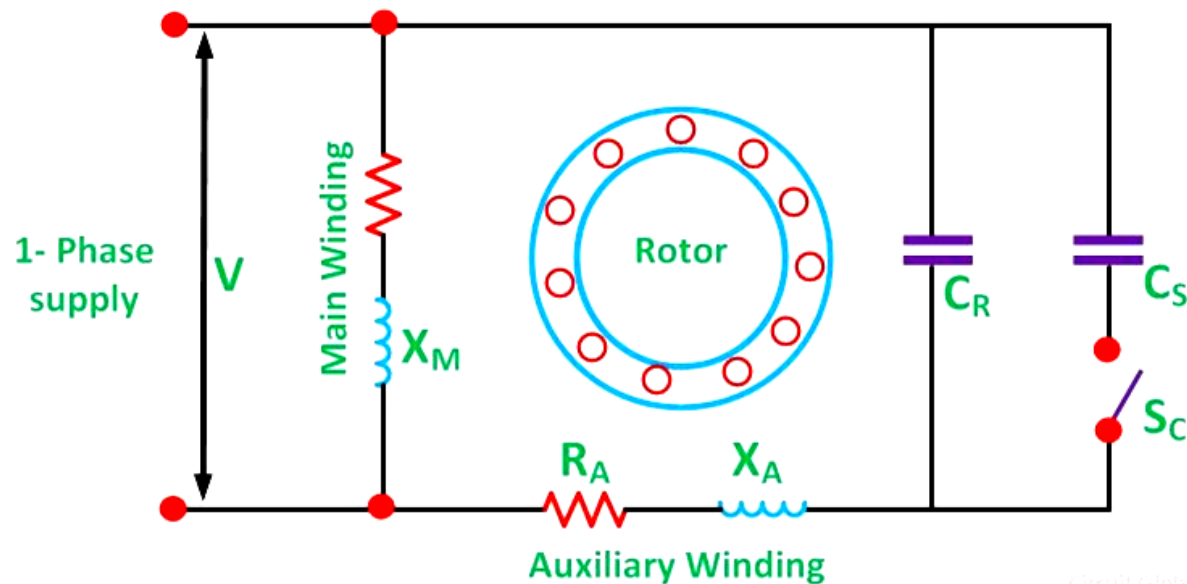


Phasor diagram



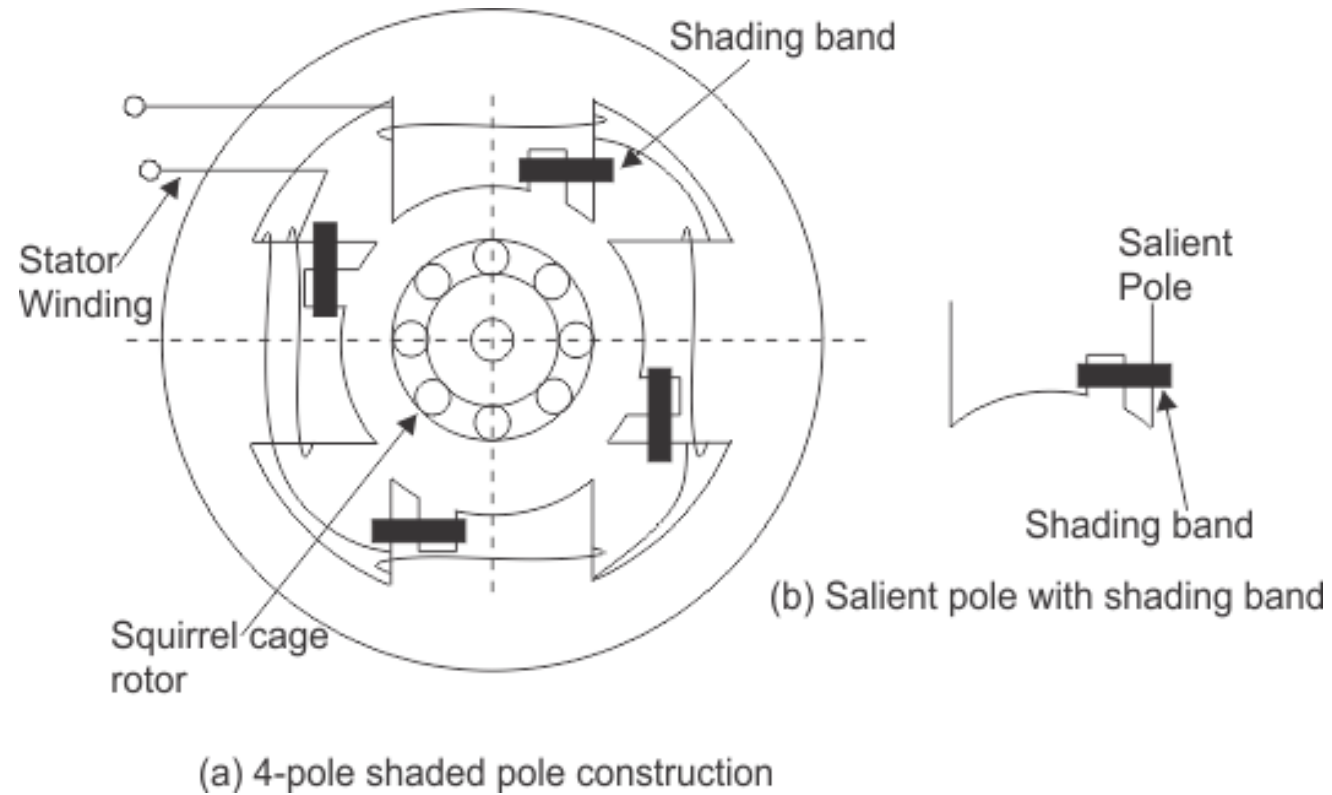


CAPACITOR START & CAPACITOR RUN IM





SHADED POLE IM





Assessment 2

1. A centrifugal switch is used to disconnect 'starting winding when motor has
 - a) Picked up 10% speed
 - b) Picked up 20% speed
 - c) Picked up 5 – 10% speed
 - d) Picked up 50 – 70% speed





REFERENCES

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2. Muthu Subramanian R, Salivahanan S,“ Basic Electrical and Electronics Engineering”, Tata McGraw Hill Publishers, (2009)
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4. Nagrath. I.J, “Electronics: Analog and Digital”, Prentice Hall India Pvt. Ltd., (2013)

THANK YOU