	DEHRADUN INSTITUTE OF TECHNOLOGY		LABORATORY MANUAL
	PRACTICAL INSTRUCTION SHEET		
	EXPERIMENT TITLE : Running & Reversing of 3-Phase Induction Motor		
	EXPERIMENT NO. :	ISSUE NO. :	ISSUE DATE :
REV. NO. V	REV. DATE : 4/07/2007	PAGE /	
DEPTT. : Electrical Engineering	LABORATORY : Electrical & Electronics Lab TEE – 151/251	SEMESTER : I / II	

Objective: - To study running (starting) and reversing of 3-phase induction motor.

Apparatus Used: - One 3-phase Induction motor, One 3-phase Autotransformer, One Voltmeter(0-500V) & One Ammeter(0-10A).

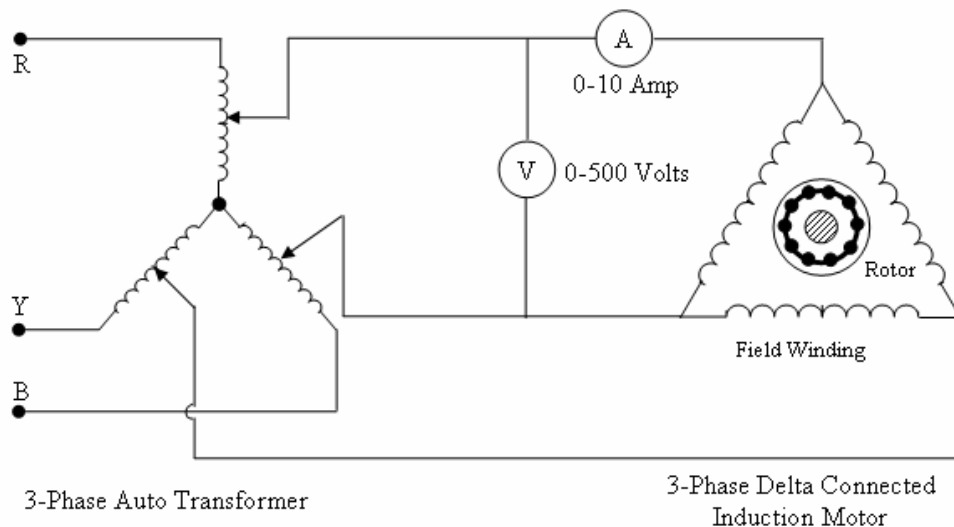
Theory: -

At the time of starting, a 3-phase induction motor draws heavy current. This heavy current can be reduced by reducing the starting voltage with the help of a 3-phase Autotransformer.

When a 3-phase supply is given in positive sequence (RYB) to 3-phase winding of the stator of the induction motor, it produces magnetic field in clockwise direction and hence rotor torque acts in clockwise and motor starts rotating in clockwise direction. However if 3-phase supply is given in negative sequence(RBY) to the 3-phase winding of stator of induction motor, it produces rotating magnetic field in Anticlockwise direction and hence rotor torque acts in anticlockwise direction and motor starts rotating in anticlockwise direction.

Therefore for reversing the direction of 3-phase induction motor, we simply interchange any two terminals of 3-phase supply.

Circuit Diagram: -



PREPEARD BY :- Mr. Nafees Ahmed	APPROVED BY :- Mr. Gagan Singh
Visit us at http://eed.dit.googlepages.com	

Result: -

1. We have reduced the starting current by reducing the starting voltage.
2. If 3-phase supply is given in positive sequence (RYB) motor rotates in clockwise direction and if given in negative sequence (RBY) it rotates in anticlockwise direction.

Precautions: -

- 1) The connections should be tight.
- 2) Autotransformer should be at zero position before giving the supply.
- 3) The experiment should be done carefully.

PREPEARD BY :- Mr. Nafees Ahmed	APPROVED BY :- Mr. Gagan Singh
Visit us at http://eed.dit.googlepages.com	