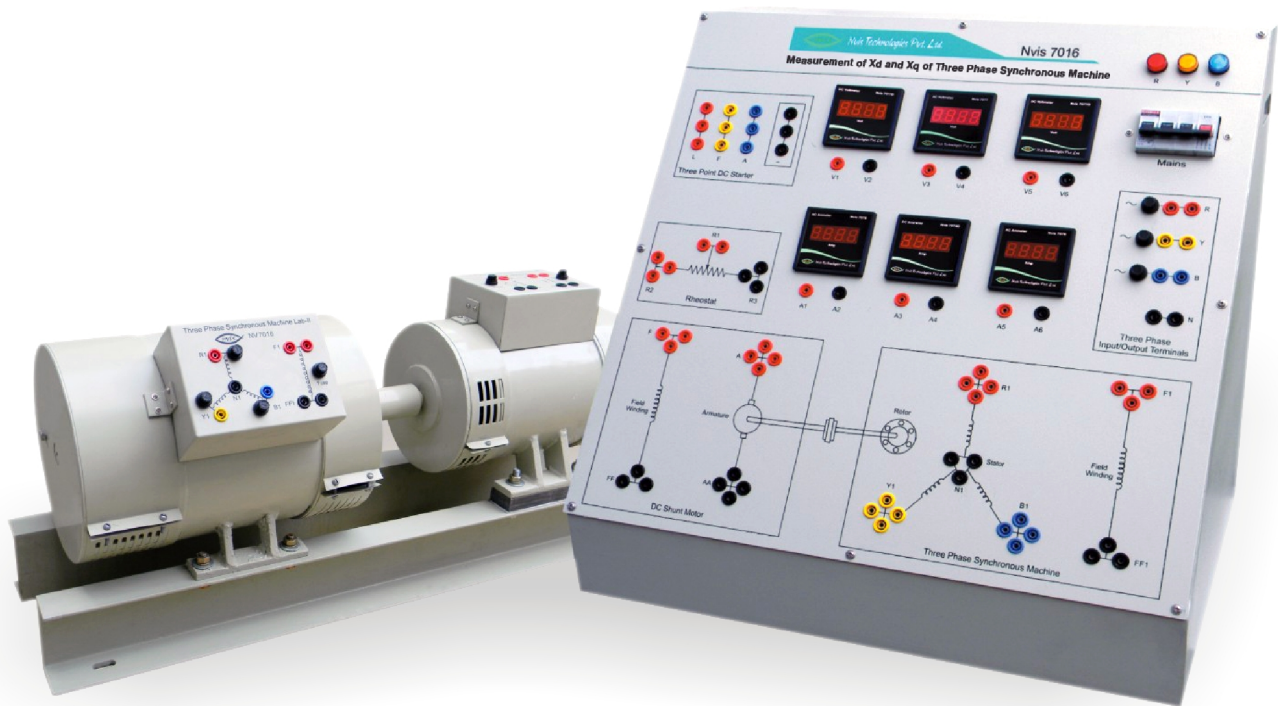




Measurement of X_d and X_q of Three Phase Synchronous Machine

Nvis 7016



Nvis 7016 Measurement of X_d and X_q of Three Phase Synchronous Machine is an exclusive product designed to demonstrate the operating principle and functioning of Three Phase Synchronous Generator. This machine lab can change the mechanical energy to electrical energy. It helps students to analyse and calculate the significant parameters such as positive, negative and zero sequence impedance, direct and Quadrature axis reactance etc. to correctly construct Three Phase Synchronous Generator.

It includes separate terminals for rheostat and three point starter provided on the control set-up so that students can make connections by themselves with adequate protections.

Features

- Electrical Loading Arrangement
- Flexible Shaft Coupling Arrangement
- Provided with Digital Tachometer
- Machine with Class "B" Insulation
- Heavy Duty Base/Channel
- Equipped with supply indication lamps
- Terminals provided to use the optional externally
- Equipped with supply indication lamps
- Designed by considering all the safety standards
- Diagrammatic representation for the ease of connections
- Exclusive and Compact Design
- Online Product Tutorial



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Scope of Learning

- Study and Measurement of Direct Axis (X_d) and Quadrature Axis (X_q) Reactance by Slip Test
- Study and Measurement of Positive Sequence Impedance of Three Phase Synchronous Generator
- Study and Measurement of Negative Sequence Impedance of Three Phase Synchronous Generator
- Study and Measurement of Zero Sequence Impedance of Three Phase Synchronous Generator

Technical Specifications

Mains Supply : Three Phase, 415V \pm 10 %, 50Hz

Machines Specification (2 nos.)

Both the Machines are flexibly coupled and mounted on "C" channel base

DC Machine

Type	:	Shunt
Rating	:	2HP
Voltage Rating	:	220V \pm 10 %
Speed	:	1500 RPM \pm 5 %
Insulation	:	Class "B"

Three Phase Synchronous Machine

Type	:	Star Connected
Voltage Rating	:	415V
Rating	:	3HP
Speed	:	1500 RPM
Excitation Voltage	:	120V \pm 10 %
Insulation	:	Class "B"

Digital Meters used

DC Voltmeter	:	300V
DC Ammeter	:	10A
AC Voltmeter	:	450V (2 nos)
AC Ammeter	:	5A & 10A (1 each)

MCB (TPN) : 10A

Optional

- DC Power Supply Nvis 725/Nvis 725A
- Rheostat 2.8A, 220 Ω
- Three Phase Variac 10A