



# Three Phase VVVF Drive Training System

## Nvis 7006S



**Nvis 7006S Three Phase VVVF Drive Training System** is an adaptable training system for electrical, solar and electric vehicle laboratories. VVVF (Variable Voltage and Variable Frequency) drives are extensively used in industry due to low energy costs, good performance, and reduced damage to the equipment. Their use has been spurred on by advances in key components such as IGBTs. VVVF Drive provide speed and torque control by varying voltage and frequency to AC motors.

Nvis 7006S provides comprehensive learning of concepts and functioning of a VVVF Drive to control a three phase squirrel cage induction motor through experiments such as running and reversing, no-load test, load test, speed control using VVVF technique in an open loop condition, etc.

### Features

- Machine with mechanical loading arrangement
- Includes digital tachometer
- High grade FRP material enclosure.
- The Rear of the Control panel covered with transparent sheet
- Heavy duty base and channel
- Brake-Drum Pulley with heat suppression facility
- Equipped with supply indication lamps

### Scope of Learning

- Study of running and reversing of three phase induction motor using VVVF Drive
- Study of no load test performed in a three phase induction motor using VVVF Drive
- Study of speed-torque characteristics in a three phase induction motor using VVVF Drive
- Study of speed control of three phase induction motor with VVVF control technology in open loop condition.

### Technical Specifications

<b>Mains Supply</b>	: Three phase, 415V AC $\pm$ 10%, 50Hz
<b>Drive</b>	
Make	: Siemens
Input Voltage	: Three phase, 415V AC $\pm$ 10%,
Output frequency range	: 0 to 599Hz (default range) with resolution of 0.01Hz
Protection Class	: IP20
<b>Three Phase Induction Motor</b>	
Type	: Squirrel Cage
Rating	: 1HP (2 HP and 3 HP also available)
Voltage Rating	: 415V AC
Speed	: 1440 RPM $\pm$ 5%
Insulation	: Class B/F
<b>Loading arrangement</b>	: Mechanical
<b>Brake Drum/Pulley</b>	: Aluminum Casted
<b>Digital Meters used</b>	
AC Voltmeter	: 450V AC
AC Ammeter	: 5A AC
MCB (TPN)	: 10A AC

