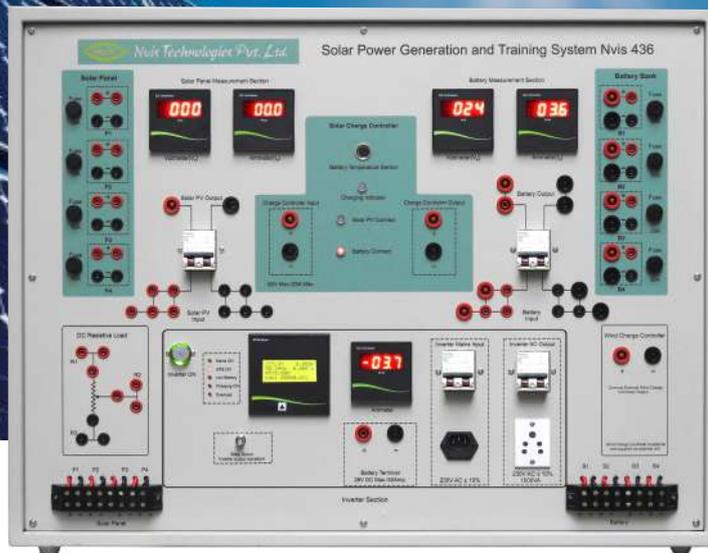




Solar Power Generation and Training System

Nvis 436



Nvis 436 Solar Power Generation and Training System has been designed considering the Solar technology applications in harnessing electricity from Sun. It is a eco friendly way to generate the energy from the Sun. This system will enable students to learn the basic as well as advanced concepts of Solar Photovoltaic energy generation. Being aligned with National Solar Mission of India, we have designed this product to provide opportunity for skill upgradation in solar PV Technology.

Features

- A unique Solar system for electricity generation.
- Provided with meters for analysis of parameters
- Provided with all safety protections
- Single-axis and Dual-axis Tracking
- Connector Sheathed Shock proof type
- DC Voltmeter & DC Ammeter
- Multi Function Meter

Scope of Learning

Measurement and Analysis of Different parameters of Solar PV Module

- Open circuit voltage (V_{oc}) of Solar PV module
- Short circuit current (I_{sc}) of Solar PV module
- Parameters measurement with parallel Solar PV modules
- Parameters measurement with series Solar PV modules
- I-V characteristics of PV Module

Estimating Solar PV system

- Load Estimation and calculation

Charge controller

- Basics of MPPT

Inverter & Batteries

- Testing of Inverter



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Technical Specifications

Solar panel

Power Rating	:	1KW
Cell type	:	Polycrystalline

Solar panel structure

Material	:	GI
Assembly	:	Detachable and easy to install

Solar inverter

Capacity	:	1000VA
Input voltage	:	190 - 260V AC
Output voltage on mains mode	:	same as input
Output voltage on UPS mode	:	210 - 245V
Output frequency on UPS mode	:	50Hz \pm 0.1Hz
Output waveform on mains mode	:	same as input
Output waveform on UPS mode	:	Modified Sine wave
Efficiency at full load	:	>80%
UPS overload/UPS Short circuit	:	Yes
Technology	:	Microcontroller based
LED Indication	:	Mains ON, UPS ON, Low Battery, Charging & Over load



Terminals : BS10 type for safety purpose

MCB : C type -4nos

Solar Battery (4nos) : 12V/100Ah (C10 type)

Charge controller

Solar PV module	:	35-70V
Current	:	40A
Battery voltage	:	24V
Technology	:	PWM based MPPT

Meters

DC voltmeter	:	0-300V (2nos)
DC ammeter	:	0-40A (3nos)
Multi function meter	:	Voltage-10-230V, Current-100mA-5A Watt-10-1200W Energy meter display resolution- 0.001kWh Frequency-50Hz

Optional accessories : Nvis 726 AC/DC load, Rheostat:50 Ω 15A x 1 no.

Designed & Manufactured in India by

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