



WIND POWER DEMONSTRATOR RE5801



Features

- Demonstrates the Practical Application of a Wind Powered Generation System
- Allows Investigation Of System Performance Inside The Laboratory Irrespective Of Outside Conditions
- Investigation of Control of a Wind Generator

Description

A small (500mm diameter) wind turbine is connected to a charge controller and a supplied 12V deep cycle lead acid gel battery. To allow investigation of the wind generator inside the laboratory a small but powerful axial fan is supplied that will allow the generator to be run up to a realistic speed. The 500mm diameter wind turbine can generate up to 25W at 19 knots (approximately 10 m/s). Optional instrumentation and accessories (which can alternatively be locally sourced) are available to investigate the detailed performance the wind generator and the use of DC power for practical applications. A mounted voltmeter is supplied as standard.

Learning capabilities

- Investigation of the components of a combined wind power generation system
- Investigation of the wind generator output voltage and power with wind variation.
- Investigation of the effect of wind direction on generator performance.
- Examination of a battery charge management system.
- Attachment of Optional DC Loads

Technical Specification

- Wind turbine: Ø500mm, 25W @ 19knots (approx.10m/s)
- Ambient Noise Level of Room at 1.5m from equipment:30DB (equipment switched off)
- Ambient Noise Level of Room at 1.5m from equipment = 78-79DB (equipment switched on)
- Integral charge control system provides overload protection and battery protection
- Low voltage operation
- Electronic cut-outs and fuses fitted

Recommended Ancillaries

- REA1 – Deep Cycle Lead Acid GEL Battery
- REA2 - Tachometer
- REA3 - Solarimeter
- REA4 - Water Pump Kit
- REA5 - Single Phase Inverter
- REA6 - Anemometer
- REA7 - Clamp Ammeter

What's in the Box?

- 1 x Wind Turbine
- 1 x Charge Controller
- 1 x 12V Deep Cycle Battery
- 1 x Fan blower

Weights & Dimensions

- Approx net dimensions: 700mm (H) x 750mm (D) x 527mm (W)
- Approx net weight: 42Kg

Essential Services

- Either: 600W 220-240 Volts, Single Phase 50 Hz (with earth / ground). Line current up to 3.0A at 230v.
- Or: 600W 110-120 Volts, Single Phase, 60Hz (with earth /ground). Line current up to 6.0A at 110V.

Operational Conditions

- Lab based range of learning outcomes

Ordering information

To order this product, please call PA Hilton quoting the following codes:
RE5801/230 - Wind Power Demonstrator
RE5801/115 - Wind Power Demonstrator

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