



SOLAR POWER DEMONSTRATOR RE5802



Features

- Demonstrates the Practical Application of a Solar Power Generation System
- Allows Investigation Of System Performance Inside The Laboratory Irrespective Of Outside Conditions
- Investigation of Solar Panel Characteristics and Operation Limitations

Description

A small (12V Nominal) solar panel with nominal 10W output is connected to a battery charge control system. The charge controller can be connected to the supplied deep cycle lead gel acid battery. The solar panel is supplied with a 400W solar simulator that allows the panel to be irradiated and generate power within the laboratory. This allows students to investigate the relative magnitude of incoming solar radiation, relative to power generated. Optional instrumentation and accessories (which can alternatively be locally sourced) are available to investigate the detailed performance of solar components and to investigate the use of DC power for practical applications. The solar panel connects to a digital combined charge controller that allows the output power from both the solar panel and an optional wind generator to be investigated.

Learning capabilities

- Investigation of the components of a solar power generation system
- Investigation of the effects of shading on a practical solar installation
- Investigation of the panel output voltage and power with solar irradiation and an investigation of panel efficiency.
- Examination of a battery charge management system.
- Attachment of Optional DC Loads

Technical Specification

- Lead acid gel battery & lead set
- Angle finder
- Compass
- Charge regulator

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 Charge regulator
- 1 x Test lamp
- 1 x Test plate, frame mounted
- 1 x Joint plate
- 1 x Lead acid gel battery
- 1 x Battery lead set
- 1 x Angle finder
- 1 x Compass
- 1 x Battery Coupling lead set
- 1 x Experimental, operating and maintenance manual

You might also like

- RE5801 - Solar Power Demonstrator

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

Ordering information

To order this product, please call PA Hilton quoting the following codes:

RE5802/230 - Solar Power Demonstrator

RE5802/115 - Solar Power Demonstrator

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