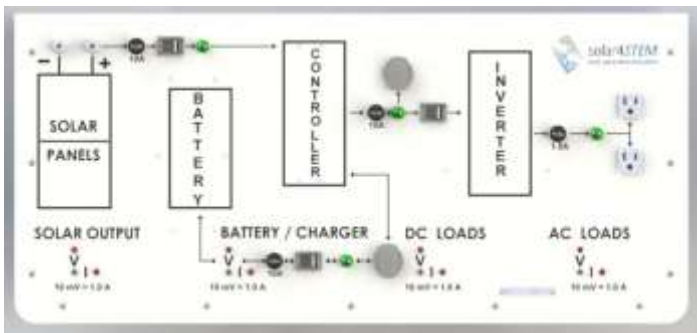




## SOLAR4STEM 100 EDUCATIONAL SYSTEM



### APPLICATIONS

The solar4STEM system is well suited for grade 3-14 STEM-based renewable energy instruction programs. The fully functional solar generation system configuration is portable, easily transportable and is easy to set up and operate solar power generation system that is ideal for:

- System uniquely configured to support instructional objectives for solar energy education
- Solar energy experiments
- Supports electricity instruction curriculum
- Provides applied instruction for manufacturing assembly training exercises
- Isolated area and off-grid power source demonstrations

### DESCRIPTION

The CME™ solar4STEM 100 Solar Education Trainer kit (p/n 0015207-001) provides grades 3 – 14 teachers with materials and equipment in a portable configuration to conduct basic electrical, geographic, and solar experiments with their students. A collection of suggested experiments are included in the manual to aid the teacher in preparing class experiments in electrical power, solar derived power, geography, seasonal solar location, etc.

The power components of the kit operate at less than 24 VDC except for the inverter which will output 115 VAC when operating. All measurement access points are fused to ensure no power component is overloaded.

The panels can be set to any tilt angle to accommodate different geographic locations and seasons. Additionally, tracking the sun manually throughout the day can be accommodated for experimentation with continuous East-West adjustment.

All components of a solar system are provided including the solar panels, battery for energy storage, charge controller for charging and managing the battery and AC inverter. A manual includes a collection of experiments that can be performed with the kit.

### KEY FEATURES & BENEFITS

- Solar4STEM is designed to provide access to measurements for solar input, battery, controller and AC output
- Expandable, modular solar panel array
- Tripod mounted with continuously adjustable tilt and tracking angles
- Compass for panel orientation
- Dial gauge angle finder for tilt and tracking angle measurements
- Quick setup and teardown
- Two solar panels per assembly for 100 watts
- Light meter for sun output reference measurements
- Includes digital multi-meter for voltage and current measurements
- Connectors for battery, controller and inverter outputs

## SPECIFICATIONS

<b>OUTPUT VOLTAGES</b>	17.6 VDC at 5.68A solar output, 12.6 VDC battery voltage output, 120VAC at 1A inverter output
<b>POWER OUTPUT RATING</b>	100W solar output, 103Wh battery output, 120W inverter output
<b>SHORT PROTECTION</b>	Fused access points for solar panel, battery, controller and inverter
<b>CASE DIMENSIONS</b>	26 in (66 cm) L x 30.75 in (78.1 cm) W x 15.5 in (39.4 cm) D
<b>CASE WEIGHT</b>	60 lbs (27.3 kg)
<b>CASE</b>	Sealed, lockable, maneuverable with wheels and handle
<b>CONNECTORS</b>	MC4 male and female cabling; 15 ft (0.914 m) cables and 2 each, "Y" adapters
<b>AMBIENT TEMPERATURE</b>	32°F to 104°F (0°C to 40°C) operating temperature range
<b>RELATIVE HUMIDITY</b>	10 to 95 percent non-condensing
<b>ACCESSORY OPTIONS</b>	Additional solar panel assembly, battery charger, DC load set, AC load set, shading material, different (material) solar panel assemblies.
<b>WARRANTY</b>	Six months from purchase/delivery. Warranty covers defects in materials or workmanship. Post-warranty repair services available, if needed.
<b>MAINTENANCE</b>	See manual for battery maintenance/replacement. Other than reasonable care and handling, no other preventative maintenance required.

## PORTABLE SOLAR4STEM 100 EDUCATIONAL SOLAR GENERATOR SYSTEM

