New

ED-9741

FUEL CELL TRAINER (MODULE TYPE)

- Understand the conception and principal of fuel cell generation
- Fuel cell generation using photovoltaic
- Complete disassembly and assembly of the fuel cell
- Current and voltage measurement for PEM Fuel Cell Stack according to each of Cell
- Power production experiment using PEM Fuel cell
- Modularized of the processes covering electrical dissolution of water and drive of fuel cell
- Experiment on various types of load
- PEMFC(Hydrogen) generation experiment
- Testing of load for maximum four fuel cell at the same time
- Removable type of electrical dissolution and fuel cell from main body
- Monitoring through LabVIEW program

> CONFIGURATION

- ED-9741-1 Photovoltaic Module -I
- ED-9741-2 PEMFC Fuel Cell -I
- Insolation Meter : 1ea
- Infrared Thermometer : 1ea

> EXPERIMENTS

- Experiment on Photovoltaic Generation
  - » Solar cell generation experiment according to luminance
  - » Solar cell generation experiment according to angle
  - » Experiment on characteristic curve solar cell IV
  - » Experiment (Motor, Lamp, Registor) according to solar cell load
- Experiment on Fuel Cell Generation
  - » Understand the conception and principal of fuel cell generation
  - » Hydrogen electrical dissolution experiment
  - » Experiment the principal for Hydrogen Generation
  - » Experiment characteristic Load of PEMFC Cell (Motor, Lamp, Registor)
  - » Experiment characteristic Load of PEMFC Stack (Motor, Lamp, Registor)
  - » Experiment changed power which is created from each of cell
  - » PEMFC cell serial and parallel experiment
  - » Experiment on characteristic curve IV of PEMFC Stack
  - » Experiment on disassembly and assembly of PEMFC Cell

FUEL CELL TRAINER (MODULE TYPE)

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> SPECIFICATIONS

ED-9741-1 PHOTOVOLTAIC MODULE-I

- **Solar Cell**
  - » Power : 10W
  - » Size : 310(W) x 18(H) x 368(D)mm
  - » Weight : 1.5kg
- **Halogen Ramp**
  - » Power : 220V/300W
- **Dimmer**
  - » Using Voltage : AC220V
  - » Rated Capacity : 1kW
  - » Noise Terminals Voltage : below 7dB 45MHz~30MHz
  - » T Shape Dimension : 80(W) x 60(H) x 120(D)mm

ED-9741-2 PEMFC FUEL CELL-I

- **H_2/Air Electrolyzer**
  - » Power : 15W
  - » Dimension : 180(W)x140(H)x120(D)mm
  - » Weight : 460g
- **Solar H_2/Air PEMFC Stack(Fuel Cell x 10)**
  - » Power : 200mW per Cell
  - » Power(10cells) : 2W
  - » Fuel : H_2/Air
- **PEM Fuel Cell Master KIT**
  - » Power : 0.3~0.4W
  - » Size : 30 x 30mm
  - » Fuel : H_2/Air
- **Adjust Resistor**
  - » Allowable Voltage : DC 0V~40V
  - » Allowable Current : 1A~5A
  - » Load Type : Analog Type
  - » Load Error : ± 1.2%
  - » Variable Resistance : 3.4~300Ω
- **Motor Pan**
  - » Power : 10mW
- **LED Lamp**
  - » LED : 8ea
  - » LED Color : Red, Blue, Green
- **DC Voltage Meter / DC Ampere Meter(2ea)**
  - » Power Voltage : AC 100~240 50/60Hz
  - » Power Consumption : 5VA
  - » Max Range : -1999 ~ 9999
  - » RS-485 Com Output : 4800/9600bps
  - » Communication Method : Half-DUP Lex

GENRAL CHARACTERISTICS

- Input Voltage : AC 220V / 60Hz
- Dimension : 595(W) x 1,437(H) x 560(D)mm

SOFTWARE

- Monitoring on basic of text & monitoring current and voltage graphic which is created from solar and full cell
- Save testing accumulated data, and possible printing
- Function to output the characteristic curve for current and voltage
- I-V graphic curve function

ACCESSORIES

- ED-9710-71 RS-485 Connector Module : 2ea
- E9710-73 Multi RS-485 Converter : 1ea
- Cable (Power, Serial, USB, Circuit Connection) : 1set
- Manual : 1ea
- SW CD : 1ea

OPTION

- ED-9710-70 ZigBee Mote Module : 1ea
- ED-9710-71 RS-485 Connector Module : 2ea
- ED-ZigM ZigBee Codi Module : 1ea
- ED-3121 Ubiquitous Monitoring System : 1ea