Systèmes Didactiques s.a.r.l.

Equipement pour l'enseignement expérimental, scientifique et technique

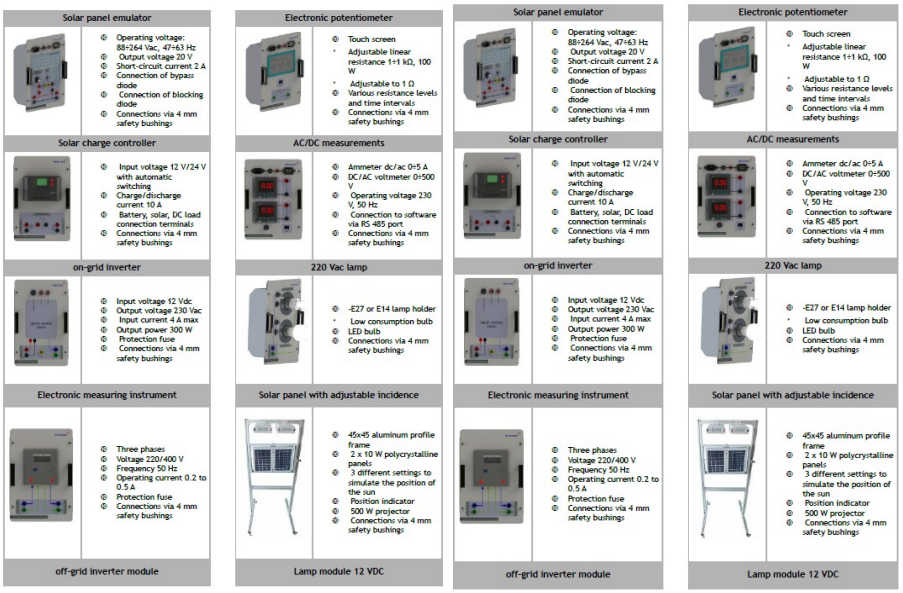
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**Energy Trainer complet Solar, Fuel Cell**








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### Wind turbine module



- Power 200 W
- Aluminum body
- Driven by DC 150W motor
- Connections via 4 mm safety bushings

### Analogue measurement module



- Analogue ammeter 0÷5 A
- Analogue voltmeter 0÷20 V
- Connections via 4 mm safety bushings

### Light source control module



- Manual or PC control
- Analogue input connector for manual control
- Output power 1000 W
- Connections via 4 mm safety bushings

### Isolated measuring module



- Measuring voltage 0÷500 V
- Scales 0÷500 V, 0÷50 V, 0÷5 V
- Measuring current 0÷5 A
- 2 channels
- IEC socket with fuse and indicator light
- Connections via 4 mm safety bushings

### Wind simulator module



- IEC socket, fuse and indicator light
- Switch for manual/pC-controlled mode
- Manual or PC-controlled DC motor rpm setting
- 200 W power
- Connections via 4 mm safety bushings

### Diode module



- 6 high-current diodes
- Connections via 4 mm safety bushings

### AC energy analyser module



- Operating voltage 100÷240 Vac, 110-250 Vdc
- Input current 5 A
- Accuracy ±1%.
- IEC connector with fuse and indicator light
- PC connector
- Connections via 4 mm safety bushings

### Linear potentiometer module



- 0÷1 kΩ
- 0÷50 Ω max 6 A
- 51÷200 Ω max 2 A
- 201÷1000 Ω max 0.6 A
- Connections via 4 mm safety bushings

### Fuel cell module



- Nominal cell power: 30 W
- 14 cells
- Rated performance: 8.4 V; 3.6 A
- Venting valve voltage: 6 V
- an voltage: 5 V
- Hydrogen pressure: 0.45÷0.55 bar
- Maximum gas flow: 0.42 L/min
- Hydrogen purity: 99.995%.
- Efficiency min. 39% at full speed
- Connections via 4 mm safety bushings

### DC power supply module



- -Adjustable 0÷30 V power supply with short-circuit and overload protection
- Adjustable current 0÷5 A
- Colour LCD display shows instantaneous current, voltage and power values
- -Connections via 4 mm safety bushings

### Solar panel emulator module



- -Operating voltage 88..264 Vac, 47÷63 Hz
- Output voltage 20 V
- Short-circuit current: 2 A
- Connection for bypass diode and blocking diode
- Connections via 4 mm safety bushings

### Electronic load module



- Touch screen
- Power 100 W
- Voltage and current can be set via touch screen
- Controllable via PC
- Connections via 4 mm safety bushings

### AC/DC measuring module



- Ammeter (0÷5 A ac/dc)
- Voltmeter (0÷500 V ac/dc)
- Supply voltage 230 Vac, 50 Hz
- Connection to software via RS 485
- LCD screen
- Connections via 4 mm safety bushings

### Solar charge controller module



- Automatic 12/24 V input switching
- Charge and discharge current 10 A
- Terminals for solar/battery/DC charge connection
- Connections via 4 mm safety bushings

| description of modules | Item 2010 solar | Item 2020 wind | Item 2040 solar wind | Item 2050 solar H2 fuel Cell | Item 2000 solar wind H2 fuel Cell |
|---|---|---|---|---|---|
| Main frame with shelf and monitor | • | • | • | • | • |
| Support structure with cable carrier | • | • | • | • | • |
| Solar panel module with light source (Photovoltaic panel - light source) | • | - | • | • | • |
| Wind turbine module | - | • | • | - | • |
| Monophase switching module | • | • | • | • | • |
| Energy Distribution module | | | | | |
| Energy Distribution Module | • | • | • | • | • |
| Accumulator module | • | • | • | • | • |
| Analogic measurement module | • | • | • | • | • |
| AC/DC measurement module | • | • | • | • | • |
| Potentiometer module | • | • | • | • | • |
| Lamp module 12 Vdc | • | • | • | • | • |
| (Lamp module 220 Vac | • | • | • | • | • |
| AC energy analyzer module | • | • | • | • | • |
| Isolated measurement module | • | • | • | • | • |
| Data acquisition module | • | • | • | • | • |
| PC interface module | • | • | • | • | • |
| Wind Simulator module | - | • | • | - | • |
| Light source control module | • | - | • | • | • |
| Solar charge regulator module | • | - | • | • | • |
| Wind turbine charge control module | - | • | • | - | • |
| Off grid inverter module | • | • | • | • | • |
| On grid inverter module | • | • | • | • | • |
| Electronic potentiometer module | • | • | • | • | • |
| Solar panel simulator modul 2x | • | - | • | • | • |
| Diode module | • | - | • | • | • |
| Electronic load module | • | • | • | • | • |
| Electronic electricity meter module | • | - | • | • | • |
| DC power supply | | | | | |
| Fuel cell module | - | - | - | • | • |
| Cable set | • | • | • | • | • |
| Software (on USB stick) | • | • | • | • | • |

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