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Ref : EWTHC2050

Energy Trainer complet Solar, Fuel Cell



 - Operating voltage: 88-264 Vac, 47-63 Hz - Output voltage 20 V - Short-circuit current 2 A - Connection of bypass diode - Connection of blocking diode - Connections via 4 mm safety bushings
 - Input voltage 12 V/24 V with automatic switching - Charge/discharge current 10 A - Battery, solar, DC load connection terminals - Connections via 4 mm safety bushings
 - Input voltage 12 Vdc - Output voltage 230 Vac - Input current 4 A max - Output power 300 W - Protection fuse - Connections via 4 mm safety bushings
 - Three phases - Voltage 220/400 V - Frequency 50 Hz - Operating current 0.2 to 0.5 A - Protection fuse - Connections via 4 mm safety bushings
off-grid inverter module

 - Touch screen - Adjustable linear resistance 1-1 kΩ, 100 W - Adjustable to 1 Ω - Various resistance levels and time intervals - Connections via 4 mm safety bushings
 - Ammeter dc/ac 0-5 A - DC/AC voltmeter 0-500 V - Operating voltage 230 V, 50 Hz - Connection to software via RS-485 port - Connections via 4 mm safety bushings
 - E27 or E14 lamp holder - Low consumption bulb - LED bulb - Connections via 4 mm safety bushings
 45x45 aluminum profile frame 2 x 10 W polycrystalline panels 3 different settings to simulate the position of the sun - Position indicator 500 W projector - Connections via 4 mm safety bushings
Lamp module 12 VDC

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Systèmes Didactiques s.a.r.l.

Equipement pour l'enseignement expérimental, scientifique et technique

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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, 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
- 51-100 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
- Heating valve voltage: 6 V
- an voltage: 5 V
- Hydrogen pressure: 2-45/0.35 bar
- Maximum gas flow: 0.42 L/min
- Hydrogen purity: 99.99%
- 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 0-264 Vac, 0-740 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	-	*	*	-	*
Microphase 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 230 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) module 2x	*	-	*	*	*
Diode module	*	-	*	*	*
Electronic load module	*	*	*	*	*
Electronic electricity meter module	*	-	*	*	*
DC power supply	-	-	-	*	*
Fuel cell module	-	-	-	*	*
Cable set	*	*	*	*	*
Software (on USB stick)	*	*	*	*	*