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## **leXsolar-Wind Professional**

Order code: 5501.1406



Cena bez DPH 2.172,00 Eur
Price with VAT 2.628,12 Eur

**Parameters** 

Subject Wind and hydropower

Quantitative unit

Wind energy currently covers the highest proportion of renewable energy production. Especially, based on the really fast build-up of new wind power plants, the demand for highly qualified staff is at a very high level. leXsolar-Wind Professional offers you practical oriented experiments for technical training while including interesting basic experiments at the same time. The fields of applications are many and

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varied: from vocational school to college level.

## **Experiments**

- Dependency of the distance on wind speed
- Comparison of the start-up speed of Savoniusand three-bladed rotors
- Analysis of the generator voltage variation after connecting a consumer
- Analysis of the wind speed behind the rotor
- Energy balance of a wind power plant
- Comparison of Savonius and three-bladed rotors
- Comparison of two-, three-, four-bladed rotors
- Influence of the wind direction
- Influence of the blade pitch
- Influence of the blade shape
- I-V-characteristics and rotational speed of wind power plants
- Rotational speed and power dependent on the wind speed
- Rotational speed and power dependent on the blade pitch
- Rotational speed and power dependent on the blade shape
- Rotational speed and power dependent on the number of blades
- Start-up speed dependent on the blade pitch
- Calculation of the efficiency of a wind power plant

## Components

- 1400-13 leXsolar-base unit Professional
- 1400-17 leXsolar-wind machine module Pro
- 1118-03 leXsolar-wind generator module Pro
- 1118-14 leXsolar-Savonius rotor module Pro
- 1118-04 leXsolar-potentiometer module Pro
- 1118-02 leXsolar-motor module Pro
- 2× 1800-01 Resistor module (triple) Pro
- 1800-06 Resistor plug element 33 Ohm
- 3× 1800-04 Resistor plug element 100 Ohm
- 2× 1800-05 Resistor plug element 10 Ohm
- 2105-00 Power supply
- 1400-02 Anemometer module
- 1400-12 leXsolar-blade set
- 2× L2-06-011 Digital multimeter
- L3-03-081 leXsolar DVD Professional
- L2-06-062 R.p.m. counter
- L2-04-066 Safety test lead, red, 25 cm
- L2-04-067 Safety lest lead, black, 25 cm
- L2-04-059 Safety test lead, red, 50 cm
- L2-04-060 Safety test lead, black, 50 cm
- 3× L2-05-068 Safety short-circuit plug, with middle socket
- L3-01-073 Aluminum case Wind-Professional with foam inserts

Age: from 16 years