DL EasyTech **RENEWABLE ENERGIES**

DE LORENZO

WIND POWER PLANT TRAINER ON-GRID & OFF-GRID

This image is for illustrative purposes only

DL HC-WIND-OGT-ET

The Wind Power Plant Trainer On-Grid & Off-Grid offers complete hands-on experience to explore how wind energy can be used both independently and in connection with the public grid.

With its horizontal-axis generator, dual operating modes, and integrated control interface, it allows students to observe real wind power behavior in practical scenarios.

Designed for educational environments, it provides an intuitive path to understanding renewable generation, storage, and grid-tie operation.

The **EasyTech – Renewable Energies product line** is designed as an entry-level solution that allows students, technicians, and new users to explore energy generation and management technologies in a practical, accessible, and safe way, all integrated into compact, didactic platforms built for progressive learning. Each **EasyTech product line** is engineered to provide an intuitive, modular, and flexible experience, helping users understand the essential principles and preparing them to advance toward more complex systems.

Technical Specifications - System configuration: On-Grid & off-Grid.

- Horizontal axis wind power generator
  - Rated power: 100W
  - Rated voltage: 12Vdc
  - Generator: Three phase AC permanent magnet synchronous generator
  - Simulated wind speed adjustable module
- Tabletop control panel
  - Grid tie power inverter
  - Rated AC Output Power: 150 W
  - AC Output Voltage: 230 V
  - AC Output Frequency: 50 Hz
  - DC Input Voltage Range: 10.8 ÷ 30V
  - Output Current Waveform: Pure Sinewave
  - Protection: Over Current, Over Temperature, Reverse Polarity, Anti-Island
  - Charge controller
- Rated voltage: 12 Vdc, rated current: 10A
- Electric load: 12 Vdc lamp
- Electric load: 230 Vac lamp
- Socket for output
- Multifunction instrument, microprocessor-based
  - Buffer battery
  - Rated voltage: 12 Vdc, Capacity: 12 Ah

Training Program

- The combined on-grid wind system for electricity production.
- Components of a stand-alone wind power system for electricity production.
- Effect of the wind speed on the generator output voltage.
- Wind generator energy conversion efficiency.
- Operation and efficiency of a DC/AC inverter.