DL EasyTech **RENEWABLE ENERGIES**

DE LORENZO

PHOTOVOLTAIC SYSTEM ON-GRID & OFF- GRID

This image is for illustrative purposes only

DL HC-SOLAR-OGT-ET

The Photovoltaic System On-Grid & Off-Grid offers a complete learning experience that demonstrates how solar energy can be used both independently and in connection with the public grid. Through its integrated panel, control interface, and dual operating modes, it allows students to explore real solar power behavior in a clear and practical way. Designed for modern training environments, it provides an intuitive approach to understanding solar generation, storage, and grid interaction.

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: grid-connected & off-grid

- Silicon cell photovoltaic panel
  - Adjustable tilt tabletop aluminum frame
  - 80 W photovoltaic panel
- 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: 230Vac lamp
- Socket for output
- Electric load: 12 Vdc lamp
- Multifunction instrument, microprocessor-based, indoor lighting device to operate the photovoltaic panel indoors

Training Program

- Components of a grid connected solar system for electricity production
- Components of a stand-alone solar system for electricity production
- Effect of solar radiation on the panel output voltage
- Effects of shading on a real solar installation
- Photovoltaic panel energy conversion efficiency
- Interconnection of solar energy to the public grid
- Operation and efficiency of a DC/AC inverter