Wiring Installation Training for Network Systems

WIT-NETS

www.edibon.com
⤷PRODUCTS
⤷4.- ELECTRICITY

INTRODUCTION

The students who begin their professional career as electrical installers, assemblers or electrical maintenance technicians require a hands-on learning with equipments that reflect faithfully the electrical installations in which they will work in the future. Currently, the internet connection or between equipments is necessary and that is extended in domestic and industrial installations so that the labour market requires qualified installers with knowledge in this discipline.

GENERAL DESCRIPTION

The Wiring Installation Training, Network Systems application, "WIT-NETS", has been designed by EDIBON for the formation at professional-practical level in the field of the installations, wiring and testing of the technology employed in the network connection.

This training application provides the future professionals with knowledge and essential skills on the assembly, installation and wiring of connections based on the RJ45 ethernet technology. This application offers different kits to provide experience in the installation of ethernet technology, wiring of male and female connection and the implementation and maintenance of small and medium networks.

To acquire a complete knowledge, the application includes a specific manual in which is explained, at theoretical-practical level, the aspects concerning to the installation procedures and wiring of these installations.

The "WIT-NETS" application includes the following elements:

- CHER. Tool Box.
- MED65. Digital Multimeter.
- PAP. Perforated Aluminum Panel.
- WMPP. Wall-Mount Patch Panel.
- SHCM. Self Healing Cutting Mat.
- FP-KIT-57. Wall Installation Kit.
- FP-KIT-56. Network Wiring Kit.
- FP-KIT-5. Measuring Kit.

The "WIT-NETS" application includes the following elements:

- CHER. **Tool Box.**

    Crimper.

    Tin.

    Meter.

    Insulating tape.

    Heat shrink.

    Pin punch.

    Star and flat screwdrivers.

    Allen keys.

    Soldering iron and soldering iron support.

    Rubber hammer.

    Connection terminals.

    Cable ties.

    Cable cutters.

    Clamps.

CHER

- MED65. **Digital Multimeter.**

    This module has a digital multimeter of about 3 ½ digits, with double-jack ending cables of about 4 mm to facilitate interconnections.

    With this digital multimeter we will be able to measure:

    Voltage.

    Current.

    Resistance.

    Capacitors capacity.

    Temperature.

MED65

- PAP. **Perforated Aluminum Panel.**

    Perforated aluminum sheet panel.

    Approx size: (width x high) 1200 x 800 mm.

    It is mounted in a structure to be placed in a workbench.

- WMPP. **Wall-Mount Patch Panel.**

    It allows to quickly change the port assignment of any equip connected to the network.

    Port types: RJ45.

    Number of ports: 12.

    Wire type: UTP wire.

    Wire category: 5e.

- SHCM. **Self Healing Cutting Mat.**

    Help to preserve the work surface and the life of knife blades.

    Dimensions:

        Height: 200 mm.

        Width: 300 mm.

        Thickness: 3 mm.

- FP-KIT-57. **Wall Installation Kit.**

    Wall assembly box.

    Push-on frame.

    Connector cover.

    Trim.

- FP-KIT-56. **Network Wiring Kit.**

    100 meters of data wire:

        Unshielded twisted pair wire (UTP).

        Category: 5e.

        Pins: 8.

    Punchdown tool:

        Tool for a simple placement of the wires in the terminal blocks.

        Category of suitable wire: 5e, 6.

    Data cable stripper:

        Wire diameter: 3 – 11 mm.

        Category of suitable wire: 4, 5, 5e, 6, 7.

        Completely closed knife blade for total security.

    Data wire crimptool:

        Cut and peeled of UTP wire.

        Suitable connectors:

            6-poles type RJ11/12.

            8-poles type RJ45.

    Data wire tester:

        RJ45 male connector.

        Suitable to detect:

            Open circuits.

            Short-circuits.

    RJ45 male connectors.

    RJ45 female connectors.

- FP-KIT-5. **Measuring Kit.**

    Clamp meter:

        Clamp for alternating/direct current measurements contactless.

        The clamp can measure:

            Current.

            Voltage.

            Resistance.

    A voltage and continuity tester:

        Voltage range: 12 – 690 VAC.

        Phases rotating detection in three-phase systems.

        Polarity tester.

FP-KIT-5

- **All necessary cables to realize the practical exercises are included.**

Cables and accessories, for normal operation.

Manuals:

    This unit is **supplied with the following manuals:** Required services, Assembly and Installation, Starting-up, Safety, Maintenance & Practices manuals.

EXERCISES AND PRACTICAL POSSIBILITIES

1.- Implementation of a RJ45 male wire with T-568A termination.

2.- Implementation of a RJ45 male wire with T-568B termination.

3.- Testing of the RJ45 wire.

4.- Wiring and installations of a rosette box for data connection.

5.- Commissioning and maintenance of a network of tow to fifty personal computers.

6.- Study of several network schemes.

 - Several other exercises can be done and designed by the user.

REQUIRED SERVICES

- Electrical supply: three-phase, 380 VAC – 400 VAC/50 Hz. or 190 VAC – 240/60 Hz, 20 kW.

DIMENSIONS AND WEIGHTS

WIT-NETS:

 - Dimensions: 1500 x 400 x 1800 mm approx.

    (59.05 x 15.74 x 70.86 inches approx.)

 - Weight: 80 Kg approx.

    (176 pounds approx.)

## WIT-NETS/ICAI. Interactive Computer Aided Instruction Software:
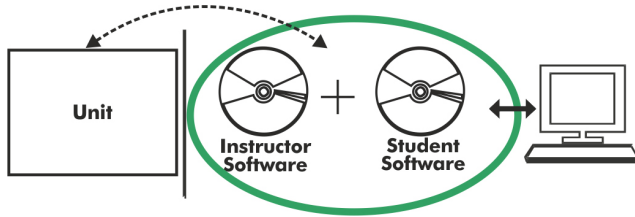
With no physical connection between unit and computer, **this complete software package consists of an Instructor Software (EDIBON Classroom Manager -ECM-SOF) totally integrated with the Student Software (EDIBON Student Labsoft -ESL-SOF).** Both are interconnected so that the teacher knows at any moment what is the theoretical and practical knowledge of the students.

Instructor Software

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).

ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual students, workgroups, units, etc... so the teacher can know in real time the level of understanding of any student in the classroom.

Innovative features:

• User Data Base Management.

• Administration and assignment of Workgroup, Task and Training sessions.

• Creation and Integration of Practical Exercises and Multimedia Resources.

• Custom Design of Evaluation Methods.

• Creation and assignment of Formulas & Equations.

• Equation System Solver Engine.

• Updatable Contents.

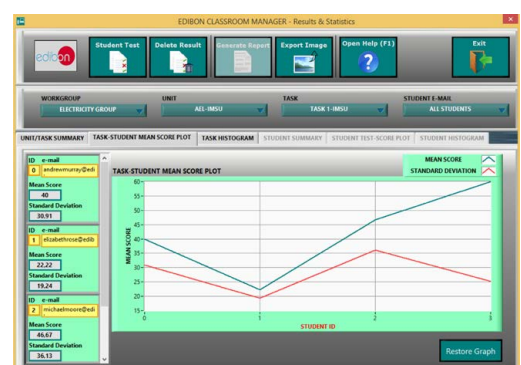• Report generation, User Progression Monitoring and Statistics.
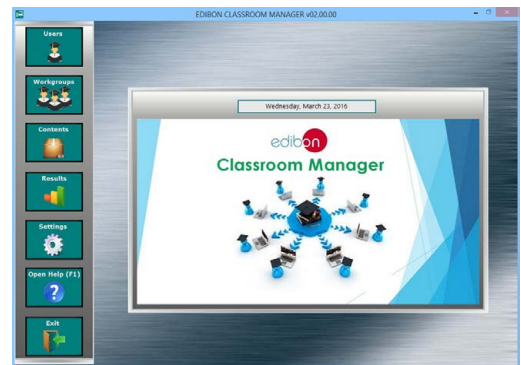
ECM-SOF. EDIBON Classroom Manager (Instructor Software) Application Main Screen
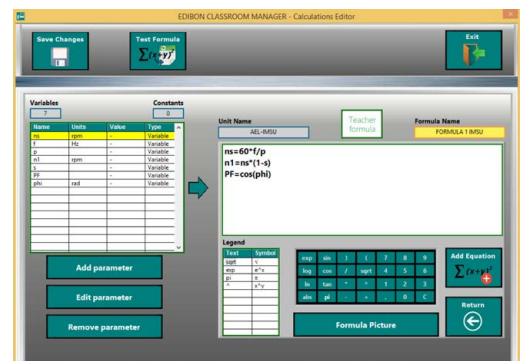
ECAL. EDIBON Calculations Program Package - Formula Editor Screen
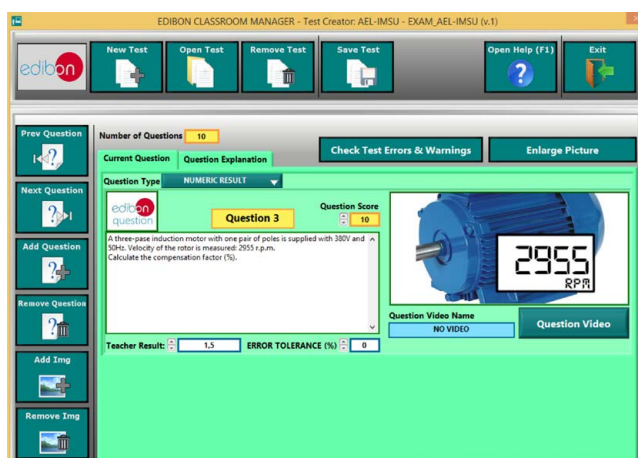
ETTE. EDIBON Training Test & Exam Program Package - Main Screen with Numeric Result Question

ERS. EDIBON Results & Statistics Program Package - Student Scores Histogram

Student Software

- ESL-SOF. **EDIBON Student Labsoft** (**Student Software**).

ESL-SOF is the application addressed to the Students that helps them to understand theoretical concepts by means of practical exercises and to prove their knowledge and progression by performing tests and calculations in addition to Multimedia Resources. Default planned tasks and an Open workgroup are provided by EDIBON to allow the students start working from the first session. Reports and statistics are available to know their progression at any time, as well as explanations for every exercise to reinforce the theoretically acquired technical knowledge.

Innovative features:

- Student Log-In & Self-Registration.

- Existing Tasks checking & Monitoring.

- Default contents & scheduled tasks available to be used from the first session.

- Practical Exercises accomplishment by following the Manual provided by EDIBON.

- Evaluation Methods to prove your knowledge and progression.

- Test self-correction.

- Calculations computing and plotting.

- Equation System Solver Engine.

- User Monitoring Learning & Printable Reports.

- Multimedia-Supported auxiliary resources.

For more information see **ICAI** catalogue. Click on the following link:

www.edibon.com/en/interactive-computer-aided-instruction-software
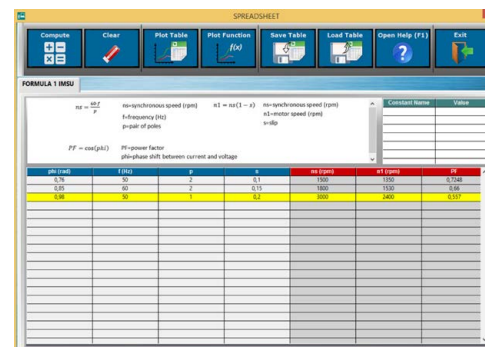

ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen
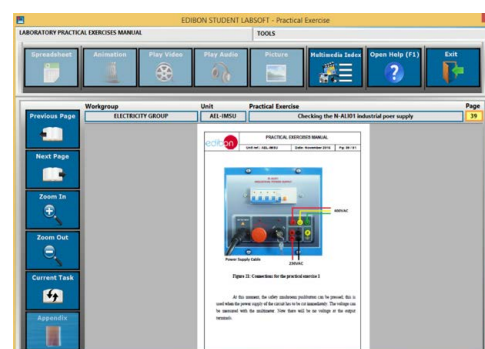
EPE. EDIBON Practical Exercise Program Package Main Screen

ERS. EDIBON Results & Statistics Program Package - Question Explanation

ECAL. EDIBON Calculations Program Package Main Screen

✱ Specifications subject to change without previous notice, due to the convenience of improvement of the product.

REPRESENTATIVE: