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PRODUCTOS
4.- ELECTRICIDAD

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. Lighting systems are basic and essential in every building or house so it is really important that the electrical installer knows the most common lighting installations types as well as the different components that form them.



ISO 9001: Quality Management (for Design, Manufacturing, Commercialization and After-sales service)



European Union Certificate (total safety)



Certificates ISO 14001 and ECO-Management and Audit Scheme (environmental management)



"Worlddidac Quality Charter" and Platinum Member of Worlddidac

GENERAL DESCRIPTION

The Wiring Installation Training, Electrical Installations in Buildings application, "WIT-EIB", has been designed by Edibon for the students formation at a professional-practical level in the field of the installation, wiring and testing of building electrical installations.

This application provides the future professionals with the knowledge and essential skills on electrical building installations through the use of different switching circuits, lamps, protections and other elements.

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-EIB application includes the following elements:

- FP-STR. Assembly Frame with Safe Electrical Power Supply.
- FP-KIT-1/S. Single-Phase Feeders Installation Kit.
- FP-KIT-4. Wiring Installation Kit.
- FP-KIT-10. Tubes and Fittings for Channelling Wiring Kit.
- FP-KIT-10/B. Rigid Tube Kit.
- FP-KIT-37. Fluorescent Ceiling Fixture Kit.
- FP-KIT-42. Incandescent Lamps Kit.
- FP-KIT-68. Stair Lighting Kit.

Required elements:

- CHER. Tool Box.

Recommended elements:

- MED65. Digital Multimeter.
- FP-KIT-5. Measuring Kit.
- FP-KIT-32/B. Switch Kit 2.

The WIT-EIB application includes the following elements:

- **FP-STR. Assembly Frame with Safe Electrical Power Supply.**

Aluminum structure:

Three aluminum struts.

Easy assembly of components via hammer head screws.

Possibility of simultaneous work of several students.

Four swiveling casters to facilitate the movement.

Dimensions:

Structure height: 1800 mm.

Useful working height: 1000 mm.

Width: 1500 mm.

Three-Phase connection plug.

Safe electric box:

Differential magnetothermal, 4 poles, 25A, 300mA AC 6KA.

Emergency stop mushroom (230/400V AC).

5-wire hose for connection to frame.

Signal lamp of voltage presence.

- **FP-KIT-1/S. Single-Phase Feeders Installation Kit.**

Differential thermal breaker.

Single phase fuse tube.

Cartridge fuse.

Electrical Board.

Plug with screw clamp terminals.

- **FP-KIT-4. Wiring Installation Kit.**

100 meters of grey wire of 1.5 mm².

100 meters of brown wire of 1.5 mm².

100 meters of black wire of 1.5 mm².

100 meters of green/yellow wire of de 1.5 mm².

25 meters of screened wire.

- **FP-KIT-10. Tubes and Fittings for Channelling Wiring Kit.**

PVC electrical conduit for wiring installation, 20 m.

7 x Electrical box.

Cable guide.

20 x PMA cable clamp, 20 mm.

- **FP-KIT-10/B. Rigid Tube Kit.**

20 m PVC Rigid Tube.

10 x Threaded connector.

5 x Elbow for conducts clamping.

- **FP-KIT-37. Fluorescent Ceiling Fixture Kit.**

2 x 8 W, lineal fluorescent tube (with tube holder).

- **FP-KIT-42. Incandescent Lamps Kit.**

4 x Double way simple lighting switch.

4 x Encapsulated halogen lamp, 230 V.

2 x Commutation switch.

230 VAC single phase socket.

- **FP-KIT-68. Stair Lighting Kit.**

2 x Stair Timer.

2 x 10 A Push-button switch.

Required elements:

- **CHER. Tool Box.**

- Crimper.
- Tin.
- Meter.
- Insulation tape.
- Heat shrink.
- Voltage tester screwdriver.
- Cross-head screwdriver and flat-head screwdriver.
- Allen keys.
- Soldering iron.
- Rubber hammer.
- Wire terminals and Connection terminals.
- Flanges.
- Wire cutter.
- Screw Clamp Terminals.
- Wire stripper.

Recommended elements:

- **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.

- **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: 12-690V AC.

Phases rotating detection in three-phase systems.

Polarity tester.

- **FP-KIT-32/B. Switch Kit 2.**

- Cross switch.
- Remote control switch.
- Push-button switch.

- **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.- Wire stripping and bending exercises, as well as guided wiring.
 - 2.- Wiring and installation of the differential protection and a fuse.
 - 3.- Wiring and lighting of a lamp with simple switch and an independent socket.
 - 4.- Wiring and lighting of a lamp controlled from two points with two commutator switches and a dependent socket.
 - 5.- Wiring and lighting of 4 halogen lamps controlled from one point along with two fluorescent tubes in parallel controlled from two points.
 - 6.- Wiring and timed lighting of a lamp from one point through a stair timing relay and a push-button switch.
 - 7.- Wiring and timed lighting of a lamp from two points through a stair timing relay and a two push-button switches.
 - 8.- Wiring and lighting of a lamp controlled from three points with two commutators switches and a cross switch.
 - 9.- Wiring and lighting of a lamp controlled from four points with two commutators switches and two cross switches.
 - 10.- Wiring and lighting of a lamp controlled from more than four points with the remote control switch.
- Several other exercises can be done and designed by the user.

REQUIRED SERVICES

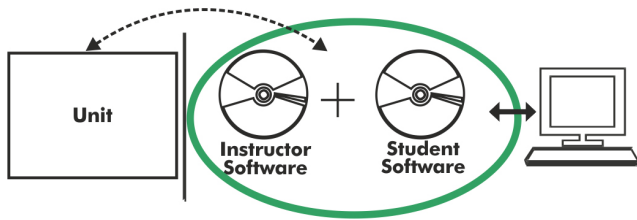
- Electrical supply: three-phase, 380V/50 Hz or 208V/60 Hz, 1 kW.

DIMENSIONS AND WEIGHTS

WIT-EIB:

- Dimensions: 1500 x 400 x 1800 mm approx.
(78.74 x 15.75 x 78.74 inches approx.)
- Weight: 80 Kg approx.
(220 pounds approx.)

WIT-EIB/ICAI. Interactive Computer Aided Instruction Software System:



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.

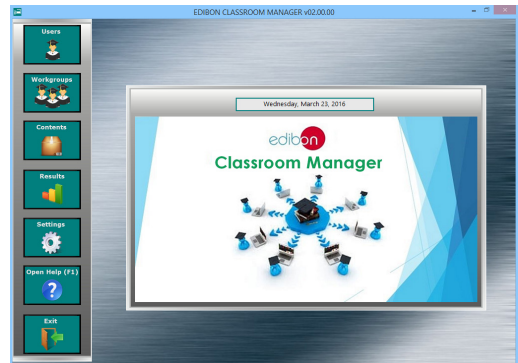
Instructor Software

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

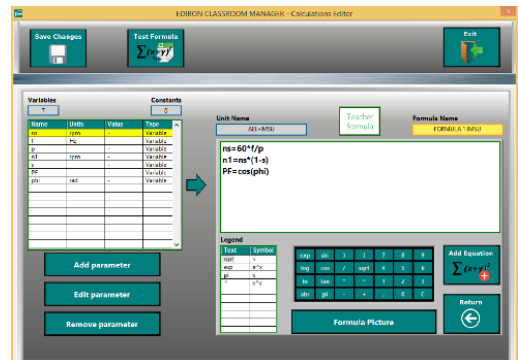
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

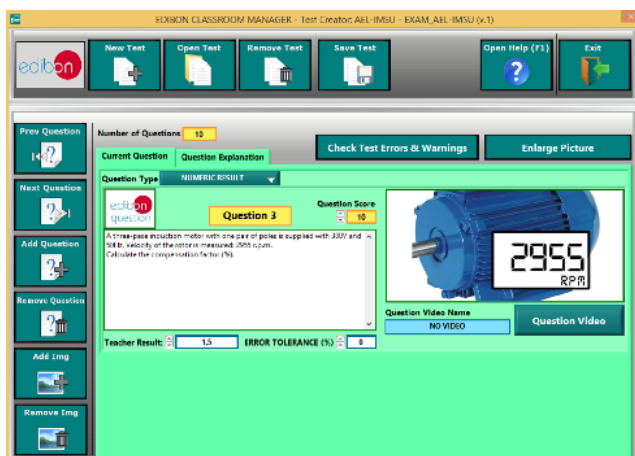
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.
- 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

Optional

Student Software

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

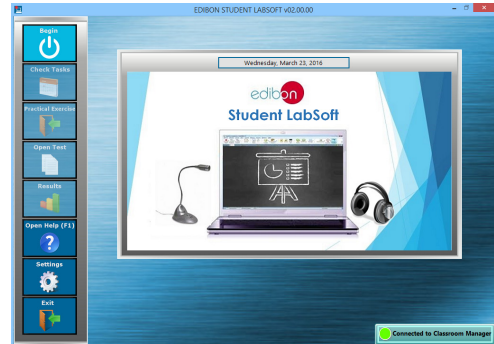
ESL-SOF is the application addressed to the Students that helps them to understand theoretical concepts by means of practical exercises and to prove their knowledge and progression by performing tests and calculations in addition to Multimedia Resources. Default planned tasks and an Open workgroup are 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:

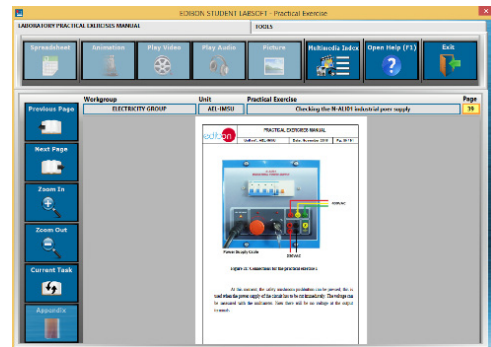
- Student Log-In & Self-Registration.
- Existing Tasks checking & Monitoring.
- Default contents & scheduled tasks available to be used from the first session.
- Practical Exercises accomplishment by following the Manual provided by EDIBON.
- Evaluation Methods to prove your knowledge and progression.
- 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:

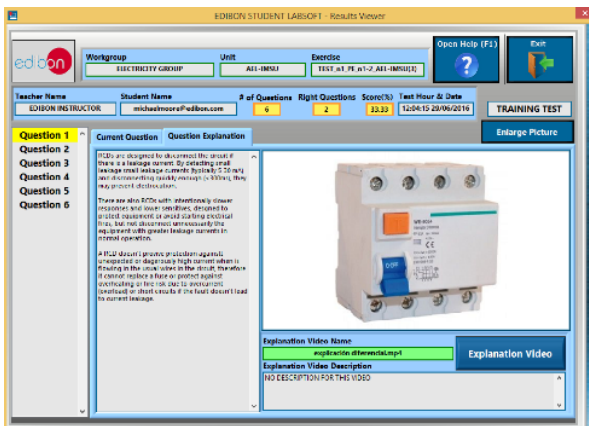
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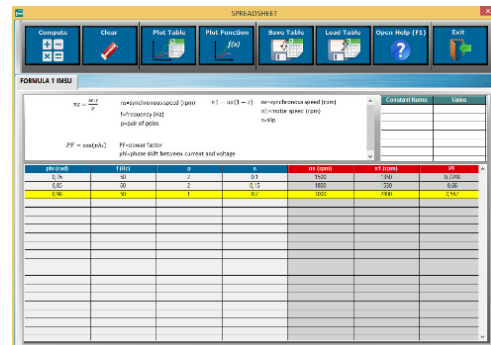
ESL-SOF. EDIBON Student LabSoft (Student Software) Application Main Screen



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.



C/ Julio Cervera, 10-12-14. Móstoles Tecnológico.
28935 MÓSTOLES. (Madrid). ESPAÑA - SPAIN.
Tel.: 34-91-6199363 Fax: 34-91-6198647

E-mail: edibon@edibon.com Web: www.edibon.com

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REPRESENTATIVE:

