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 ↳ PRODUCTS
 ↳ 40.- ELECTRICITY

INTRODUCTION

Nowadays, alarms are used in a wide range of applications, such as fire detection, reminders or burglar alarms.

Fire alarms are one of the most important security measures in our days, since they save lives and objects that would be lost if they did not exist. In addition, many of these alarms could be considered an active protection element when they include water sprinklers to help to extinguish the fire.



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)



Certificate and Worlddidac Member

GENERAL DESCRIPTION

The Fire Alarm Advanced Application, "AEL-AD3A", is designed with the aim to study different types of fire alarms. This complete application includes several types of sensors and alarms. The sensors included are a smoke detector, an ionized air detector and a temperature detector. These sensors activate the following alarms, also included: indoor siren, bell type alarm and a water solenoid valve to extinguish the fire. All these devices are controlled by a fire alarm station with battery, just in case the fire damages the electrical system. This application will be used by students to simulate several situations caused by fires and study the operation of each device.

The AEL-AD3A includes the following modules:

- N-ALI02. Domestic Main Power Supply.
- N-ALI03. AC Auxiliary Power Supply.
- N-ALA02. Fire Alarm Station with Battery.
- N-SEL21. Indoor Siren.
- N-SEL17. Fire alarm bell + push-button.
- N-DET06. Smoke Detector.
- N-DET10. Water Electrovalve.
- N-DET21. Fire detector through ionization.
- N-DET22. Fire thermal detector.

Expansion learning software:

In addition, Edibon provides expansion learning software (AEL-AD3A/ICAI) to reinforce knowledge about this field.

This software is formed by:

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).
- ESL-SOF. EDIBON Student Labsoft (Student Software).

The application AEL-AD3A can be mounted on rack (option A) or on rail (option B):

Option A:

This application needs the following racks:

- N-RACK-A.

Optionally the AEL-WBR. Electrical Workbench (Rack) can be supplied to place the rack/s.

Option B:

This application can be mounted on rail.

Optionally the AEL-WBC. Electrical Workbench (Rail) can be supplied to mount the modules.

SPECIFICATIONS

The application includes the following modules:

- N-ALI02. **Domestic Main Power Supply.**

Voltage supply (Single-Phase): 230 VAC, PH+N+G.

ON-OFF removable key.

Output Voltage Connections:

Two Single-Phase: 230 VAC.

Single-Phase supply wire connecting plug.

Differential magnetothermal, 2 poles, 25 A, 30 mA AC 6 KA.



N-ALI02

- N-ALI03. **AC Auxiliary Power Supply.**

Voltage supply (Single-Phase): 230 VAC PH+N+G.

Output voltage:

Single-Phase 24 VAC/12 VAC.

24 VDC.

0 - 24 VDC through potentiometer.



N-ALI03

- N-ALA02. **Fire alarm station with battery.**

Two control zones.

Voltage supply, 230 VAC.

Ground connection.

One input to activate the remote reset.

One input to deactivate the programmed delays.

Normally open fail contactor.

Normally open alarm contactor.



N-ALA02

- N-SEL21. **Indoor Siren.**

Volume configuration through voltage, 12-24 VDC.

87-112 dB.

12 – 30 mA.

32 tones.



N-SEL21

Specifications

- N-SEL17. **Fire alarm bell + push-button.**

Voltage supply, 19-28 VDC.

Current consumption: 20 mA.

Sound output: 95 dB.

Range of temperature: from -10 to +55°C.

Pushbutton:

Inner resistor: 100 ohm.

Maximum current/voltage ratio: 2A/30 VDC.



N-SEL17

- N-DET06. **Smoke Detector.**

Output voltage, 9-28 VDC.

Consumption of 85 μ A in standby and <100 mA in alarm.

Operation temperature from -10 to 70 °C.



N-DET06

- N-DET10. **Water solenoid valve.**

Voltage supply, 230 VAC.

Normally closed position.

Maximum pressure, 1.5 MPa.



N-DET10

- N-DET21. **Fire detector through ionization.**

Working voltage, 9-28 VDC.

Current of 85 μ A in standby and <100 mA in alarm.

Operation temperature from -10 to 70°C.



N-DET21

- N-DET22. **Fire thermal detector.**

Operation voltage: 9-28 VDC.

Current of 85 μ A in standby and <100 mA in alarm.

Pre-warning indication: LED flickering.

Alarm indication: fixed LED.

Operation temperature from -10 to 70 °C.



N-DET22

- **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.- Checking and measuring the main power supply. | 7.- Checking the operation of the smoke detector. |
| 2.- Checking the working of the auxiliary power supply. | 8.- Checking the operation of the indoor siren. |
| 3.- Checking the operation and control of the Fire Alarm Station. | 9.- Checking the operation of the bell. |
| 4.- Simulate situations in two safety zones managed by the Fire Alarm Station. | 10.- Checking the operation of the water solenoid valve. |
| 5.- Checking the operation of the air ionization sensor. | 11.- Combine the different types of sensors with the alarms to simulate different situations. |
| 6.- Checking the operation of the temperature sensor. | |

REQUIRED SERVICES

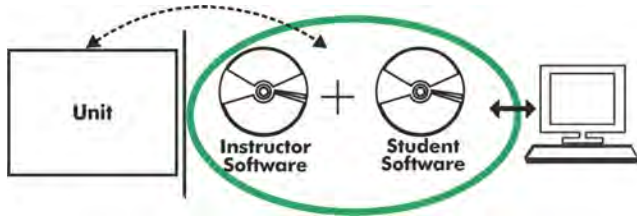
- | |
|---|
| - Electrical supply: single phase, 230 V./50 Hz. or 115 V./60 Hz. |
|---|

DIMENSIONS AND WEIGHTS

- | |
|--|
| AEL-AD3A: |
| - Dimensions: 640 x 320 x 920 mm approx.
(25.19 x 12.59 x 32.22 inches approx.) |
| - Weight: 60 Kg approx.
(132 pounds approx.) |

Optional

AEL-AD3A/ICAI. Interactive Computer Aided Instruction Software System:



With no physical connection between unit and computer (PC), 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.

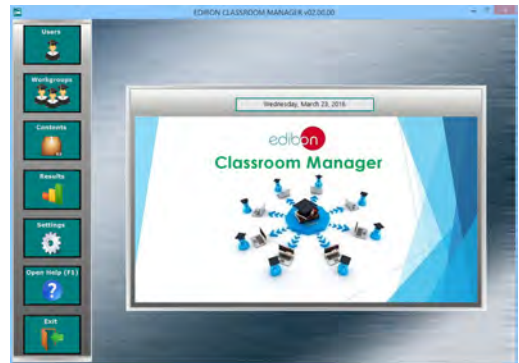
Instructor Software

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

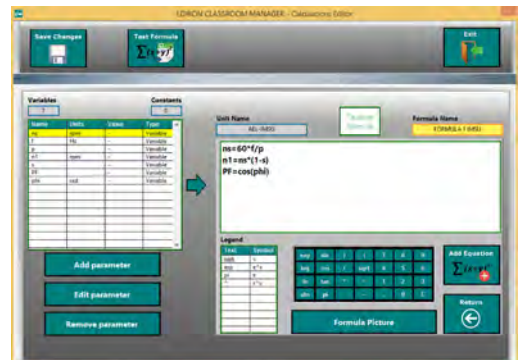
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

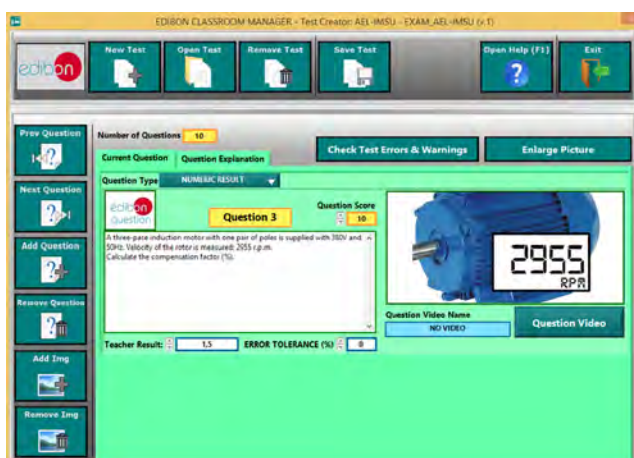
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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

www.edibon.com/en/files/expansion/ICAI/catalog



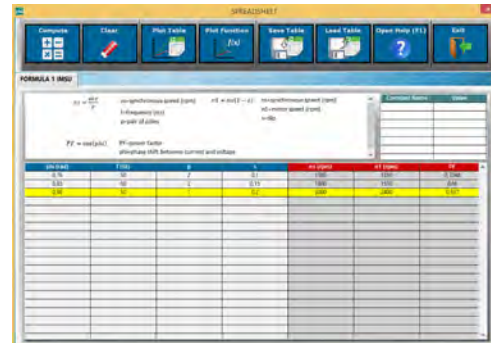
ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



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.



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REPRESENTATIVE:

