

TWIN-ENGINE AIRCRAFT ELECTRICAL SYSTEM

Mod. AQ-1/EV

INTRODUCTION

The aircraft electrical system simulator mod. AQ-1/EV, is included in a complete set of educational equipment for the basic training on aircraft systems.

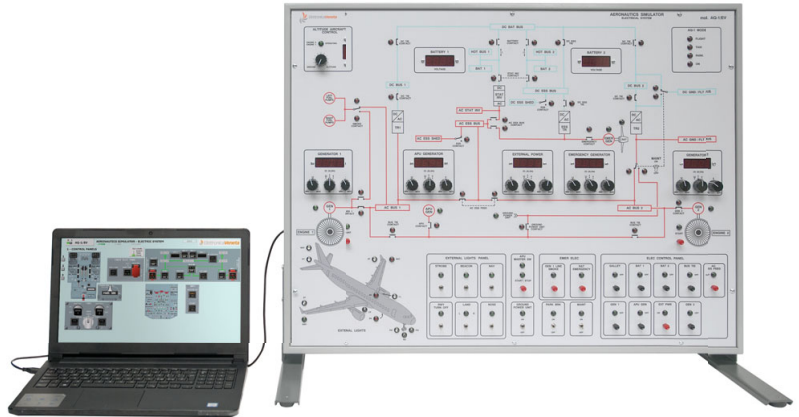
The simulator consists of a computer-assisted panel, with silk-screen mimic diagram for a clear location of its components.

Various zones of the mimic diagram are represented with different colours to emphasize peculiar aspects of the system.

Light and displays indicators, installed in the mimic diagram enable to assess the evolutions of the control.

The graphic display of the information available at the control input, such as aircraft status (park, APU ...) on the computer screen enables the permanent monitoring of the system.

The operational conditions are set by students according to the educational path indicated in the courseware, carried out by the PC.



- Take off
- Landing

- ELECTRICAL PROBLEMS HANDLING
- EXTERNAL LIGHTS

TRAINING PROGRAM:

- **POWER GENERATION**
 - DC battery
 - APU (Auxiliary unit)
 - Alternator (Integrated Drive Generators)
 - Transformers-rectifiers (TR)
 - Electronic inverter DC-AC
 - External power
 - Random air turbine (RAT)
 - Emergency generator
 - Hydraulic circuits (Green, blue, yellow)
- **POWER NETWORK**
 - DC BAT bus
 - DC BUS1 – DC BUS2
 - DC ESS BUS (emergency bus)
 - AC BUS1
 - AC ESS bus (emergency bus)
 - AC BUS2
 - BUS TIE contactor
 - MAINT bus (Ground handling bus)
- **SYSTEM SUPERVISION SIMULATIONS**
- **STATUS**
 - Park
 - Airport service support
 - APU power supply
 - APU engine starting

TECHNICAL SPECIFICATIONS:

The system is arranged on a silk-screen, panel provided with:

- Color silk screen panel
- Selection of the operational conditions with switches and pushbuttons
- Displays and LED visualisation
- Dynamic display of the parameters, on the computer screen, with high graphic performance software (LabVIEW)
- USB connexion with the computer

Power supply: 230 Vca 50 Hz single-phase - 50 VA
(Other voltage and frequency on request)

Dimensions: 835 x 455 x 650 mm

Weight: 19 kg

REQUIRED

PERSONAL COMPUTER
- NOT INCLUDED -



SUPPLIED WITH

SOFTWARE:
SIMULATOR CONTROL MANAGEMENT WITH
GRAPHICAL DISPLAY ON THE PC SCREEN



**THEORETICAL-EXPERIMENTAL
HANDBOOK**

