

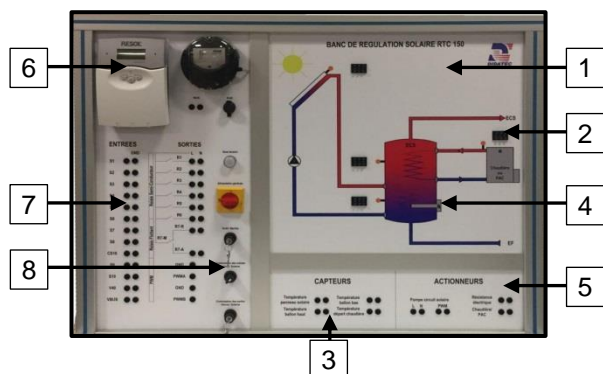
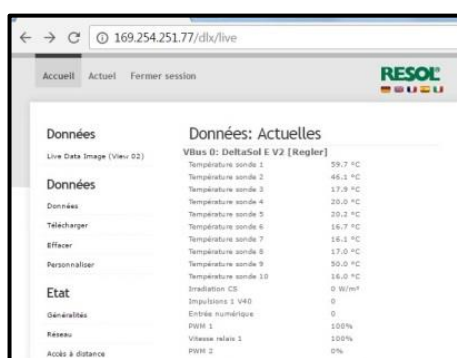
## SOLAR CONTROLLER TRAINER



### Experimental capabilities

- Study of a solar controller
- Set up of a solar controller
- identification of the components
- Wiring of inputs - outputs
- Parameterizing
- Definition of the solar installation
- Temperatures simulation
- Visualization of the actions of the controller
- Optimization of parameters
- Defining a program according of the time

## Illustrations

Données: Actuelles	
VBus 0: DeltaSol E V2 [Regler]	
Température sonde 1	39.7 °C
Température sonde 2	46.3 °C
Température sonde 3	17.8 °C
Température sonde 4	20.0 °C
Température sonde 5	20.2 °C
Température sonde 6	16.7 °C
Température sonde 7	16.6 °C
Température sonde 8	17.0 °C
Température sonde 9	30.0 °C
Température sonde 10	16.0 °C
Irradiation G0	0.00W/m²
Impulsions 1 V40	0
Entrée numérique	0
PWM 1	100%
Vitesse relais 1	100%
PWM 2	0%

Data table



Synopsis

## Technical details

Synoptic simulation:

1. Synoptic representing a solar installation with a water tank with heat exchanger, a hydraulic unit, a solar panel, an electric auxiliary, a boiler and a DHW circuit.
2. Temperature Simulation Potentiometers (x4): Panel probe, high tank sensor, low tank sensor, boiler sensor
3. Connection sockets of simulation potentiometers (sensors)
4. Green operating status lights (x3) of the simulated actuators: Hydraulic unit pump, boiler, auxiliary electric heater
5. Connection sockets of the simulated actuators

Controller :

6. Solar controller Deltasol E type and RESOL brand with digital electronic display and data logger module for communication.
7. Screen printed plate with connection sockets for inputs and outputs. Each socket is marked with the identification of the controller input (ex: S1)
8. Equipment commissioning button:
  - voltage white light
  - main switch
  - internal switch inputs (direct connection of the sensors to the terminals of the controller without passing through the cords)
  - internal switch of the outputs (direct connection of the actuators to the terminals of the controller without going through the cords)

General specifications:

9. electrical box including a GFCI, magneto-thermal circuit breakers, a 230VAC / 24VAC transformer and relays.
10. Support frame in aluminum profile equipped with four directional wheels with brake and allowing use of the desk by a standing man. The bench is supplied with a lot of safety cords allowing the complete connection of the bench

Data acquisition software:

11. The bench is supplied with a data acquisition system which allows the feedback of the controller information
12. The acquisition includes a table of current values and a synopsis of the installation
13. The connection to the controller is via the Ethernet protocol with an RJ45 connector. No specific software is needed, the system uses an internet browser and the IP address of the controller.

## Services required

- Electrical supply : 230 Vac – 50 Hz – 6 A
- Electrical network : 1 phase(s) + Neutral + Earth.
- Dimensions: (LxWxH mm): 1100 x 780 x 1650
- weight (Kg): 80
- 

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

## Documentation

- User's manual
- Technical documentation of the components
- Lab exercises
- Wiring diagram
- Certificate of conformity CE