

## "Intelligent Home" energy control system



QUICK-NRJ presented on MODULO-1 frame

The colour touch screen module displays all the detail of consumption, for controlling heating (pilot wire and load shedding), lighting and roller blinds.



### EDUCATIONAL OBJECTIVES

- Study a measurement system for energy consumption according to new standard for energy saving.
- Study the principle of a home control installation equipped with DELTA DORE® radio components
- Parameter the DELTA DORE® radio components (RF technology)
- Produce wiring for home components.
- Learn how to use a clamp ammeter.

### TEACHING RESOURCES STUDENT & TEACHER

### Proposed Practical Works

- Production of the complete wiring diagram.
- Study of the production of the wiring and programming of the components from the DELTA DORE touch screen module
- Study and production of radio commands for lighting, roller blinds and heating.
- Reading of power according to the heating operating cycles.
- Comparison of the power displayed on screen with that calculated from the different readings.
- Creation of scenarios according to the outside temperature and sunshine.

ref. QUICK-NRJ

More and more standards and directives require individual homes to be equipped with a system enabling energy consumption to be measured or estimated. QUICK-NRJ groups all the DELTA DORE® components needed to learn about electrical energy consumption. A colour touch screen module displays all the energy use information as graphs. The different components are prepared in plastic housings engraved and equipped with 4mm terminals to facilitate and make safe the wiring using safety leads. The modules are very easy to install on the aluminium wheeled frame.

### Comprises

- 1 Module - data transmitter with off-peak hours control
- 1 Module - colour touch screen displaying all the detail of consumption, for controlling heating (pilot wire and load shedding), lighting and roller blinds.
- 1 Module - 3 current transformers (max 60A) for measuring 3 different circuits.
- 1 Module - power interface technical unit for touch screen.
- 1 Radio module - sunlight sensor.
- 1 Radio module - outside temperature sensor
- 2 Radio modules - roller blind control
- 1 Simulation module - 2 blinds.
- 1 Radio module - lighting variation.
- 1 Radio module - lighting variation, off/on, timing
- 2 Modules - bulkhead lights 230V AC - 60 W
- 3 Modules - load 320 W + indicator lights
- 1 Simulation module - 3 pilot wire convactor heaters, 1 hot water tank and 1 pellet burner.