

EM100 and EM300 series

## Controls

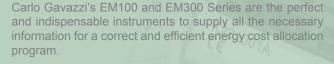
# The forefront of the energy submetering

Today, energy costs are impacting more and more importantly on the budgeting of any economic activity. To ensure optimum energy efficiency, the only way is by measuring the energy consumption of different loads in departments, offices, and so on.

departments, offices, and so off.

For a simple house, the need is to check and prove its efficiency class by calculating and allocating the correct energy costs for heating and/or heat pump, whereas for a big building such as a hospital, a detailed energy profile of each ward or department and of each service (lifts, HVAC, heating, gas distribution system) is required.

The cost of manufacturing goods is also higher than ever, therefore measuring energy consumption in different types of production means that costs can be allocated and controlled in a more accurate manner.



The EM100 and EM300 Series are very easy and straightforward to use. The exclusive TOUCH TECH display allows a greater and more rational use of available space, wear-free operation, and very simple access to all the available data, the set parameters and the programming procedure.



### The ten advantages of the EM100 and EM300

- Innovative and unique touch display
- LCD display with 7 to 8 digits according to the different models. Up to 3 variables in a single page. Active and reactive energy, active, reactive and apparent power, power demand and peak, currents, voltages, power factors and frequency are available.
- LCD backlight with self-switching off
- Single-phase energy analysers with extended direct current inputs from 45A to 100A
- Single-phase energy analysers with RS485 Modbus communication
- Integrated M-Bus communication
- Single-phase energy meter with electromechanical display
- Dual tariff management
- Only a two DIN modules housing for a three-phase energy analyser with external current transformer connection
- Only a three DIN modules housing for a three-phase direct connection energy analyser





### The benefits of the EM100 and EM300 Series

### **TOUCH TECH display**

The EM100 and EM300 are the first energy analysers in the market to have the TOUCH TECH system, a display-integrated touch key-pad.

The TOUCH TECH display makes page scrolling and programming simpler and more straightforward,

avoiding all the issues related to mechanical keys.

In this way the LCD area, backlit after the first touch, can display a complete set of variables and data.



### Compact size, extended current inputs

Thanks to their innovative measuring technique, the EM100 and EM300 can manage a high direct current in a very compact housing, with an extended accuracy range.

The nominal current of the 1-DIN module-housing EM110 and EM111 is 45A; EM112 can reach 100A (1-phase)

in just 2-DIN modules, EM340 up to 65A (3-phase) in a 3-DIN modules.

The EM330 is a compact 3-phase analyser by external current transformers, in a compact 2-DIN housing.





### **Developed to communicate**

Together with accurate measurement and a clear data display, communication is the most valuable benefit of the EM100 and EM300.

The energy analysers are available with an integrated Modbus RTU or M-bus port. External M-bus gateways are no longer needed.

All the energy data and instantaneous

values can be easily read by any supervisory system using the same driver for all the models of the EM100 and EM300 Series.

The EM100 and EM300 can also be optionally equipped with a pulse output to retransmit the consumed active energy to a supervisory PLC.





### EM100 Series: class 1 single-phase bidirectional and dual-tariff energy meters

- EM110 120V or 240V; 45 A direct connection Electromechanical display, 7-digit, Pulse output 1-DIN module
- EM111 120V or 240V; 45 A direct connection Backlit LCD display, 7-digit, Pulse output, Modbus RTU or M-bus port Digital input for dual tariff management 1-DIN module
- EM112 120V or 240V; 100 A direct connection Backlit LCD display, 8-digit, Pulse output, Modbus RTU or M-bus port Digital input for dual tariff management 2-DIN module

### EM300 Series: class 1 three-phase bidirectional and dual-tariff energy meters

- EM330 230V or 400VLL; 5 A CT connection Backlit LCD display, 3x8-digit Pulse output, Modbus RTU or M-bus port Digital input for dual tariff management 2-DIN module
- EM340 230V or 400VLL; 65 A direct connection Backlit LCD display, 3x8-digit Pulse output, Modbus RTU or M-bus port Digital input for dual tariff management 3-DIN module



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