



EM100 and EM300 series

Controls

EM100-EM300

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.

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.

Carlo Gavazzi's EM100 and EM300 Series are the perfect and indispensable instruments to supply all the necessary information for a correct and efficient energy cost allocation program.

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

OUR SALES NETWORK IN EUROPE

AUSTRIA - Carlo Gavazzi GmbH
Ketzergasse 374, A-1230 Wien
Tel: +43 1 888 4112
Fax: +43 1 889 10 53
office@carlogavazzi.at

BELGIUM - Carlo Gavazzi NV/SA
Mechelsesteenweg 311, B-1800 Vilvoorde
Tel: +32 2 257 4120
Fax: +32 2 257 41 25
sales@carlogavazzi.be

DENMARK - Carlo Gavazzi Handel A/S
Over Hadstenvej 40, DK-8370 Hadsten
Tel: +45 89 60 6100
Fax: +45 86 98 15 30
handel@gavazzi.dk

FINLAND - Carlo Gavazzi OY AB
Petaksentie 2-4, FI-00661 Helsinki
Tel: +358 9 756 2000
Fax: +358 9 756 20010
myynti@gavazzi.fi

FRANCE - Carlo Gavazzi Sarl
Zac de Paris Nord II, 69, rue de la Belle
Etoile, F-95956 Roissy CDG Cedex
Tel: +33 1 49 38 98 60
Fax: +33 1 48 63 27 43
french.team@carlogavazzi.fr

GERMANY - Carlo Gavazzi GmbH
Pfnorstr. 10-14
D-64293 Darmstadt
Tel: +49 6151 81000
Fax: +49 6151 81 00 40
info@gavazzi.de

GREAT BRITAIN - Carlo Gavazzi UK Ltd
4.4 Frimley Business Park,
Frimley, Camberley, Surrey GU16 7SG
Tel: +44 1 276 854110
Fax: +44 1 276 682140
sales@carlogavazzi.co.uk

ITALY - Carlo Gavazzi SpA
Via Milano 13, I-20020 Lainate
Tel: +39 02 931 761
Fax: +39 02 931 763 01
info@gavazziacbu.it

NETHERLANDS - Carlo Gavazzi BV
Wijkemeerweg 23,
NL-1948 NT Beverwijk
Tel: +31 251 22 9345
Fax: +31 251 22 60 55
info@carlogavazzi.nl

NORWAY - Carlo Gavazzi AS
Melkeveien 13, N-3919 Porsgrunn
Tel: +47 35 93 0800
Fax: +47 35 93 08 01
post@gavazzi.no

PORTUGAL - Carlo Gavazzi Lda
Rua dos Jerónimos 38-B,
P-1400-212 Lisboa
Tel: +351 21 361 7060
Fax: +351 21 362 13 73
carlogavazzi@carlogavazzi.pt

SPAIN - Carlo Gavazzi SA
Avda. Iparraguirre, 80-82,
E-48940 Leioa (Bizkaia)
Tel: +34 94 480 4037
Fax: +34 94 480 10 61
gavazzi@gavazzi.es

SWEDEN - Carlo Gavazzi AB
V:a Kyrkogatan 1,
S-652 24 Karlstad
Tel: +46 54 85 1125
Fax: +46 54 85 11 77
info@carlogavazzi.se

SWITZERLAND - Carlo Gavazzi AG
Verkauf Schweiz/Vente Suisse
Sumpfstrasse 3,
CH-6312 Steinhausen
Tel: +41 41 747 4535
Fax: +41 41 740 45 40
info@carlogavazzi.ch

OUR SALES NETWORK IN THE AMERICAS

USA - Carlo Gavazzi Inc.
750 Hastings Lane,
Buffalo Grove, IL 60089, USA
Tel: +1 847 465 6100
Fax: +1 847 465 7373
sales@carlogavazzi.com

CANADA - Carlo Gavazzi Inc.
2660 Meadowvale Boulevard,
Mississauga, ON L5N 6M6, Canada
Tel: +1 905 542 0979
Fax: +1 905 542 22 48
gavazzi@carlogavazzi.com

MEXICO - Carlo Gavazzi Mexico S.A. de C.V.
Calle La Montaña no. 28, Fracc. Los Pastores
Naucalpan de Juárez, EDOMEX CP 53340
Tel & Fax: +52.55.5373.7042
mexicosales@carlogavazzi.com

BRAZIL - Carlo Gavazzi Automação Ltda. Av.
Brig. Luís Antônio, 3067
Jd. Paulista São Paulo
CEP 01401-000
Tel: +55 11 3052 0832
Fax: +55 11 3057 1753
info@carlogavazzi.com.br

OUR SALES NETWORK IN ASIA AND PACIFIC

SINGAPORE - Carlo Gavazzi Automation
Singapore Pte. Ltd.
61 Tai Seng Avenue
#05-06 UE Print Media Hub
Singapore 534167
Tel: +65 67 466 990
Fax: +65 67 461 980
info@carlogavazzi.com.sg

MALAYSIA - Carlo Gavazzi Automation
(M) SDN. BHD.
D12-06-G, Block D12,
Pusat Perdagangan Dana 1,
Jalan PJU 1A/46, 47301 Petaling Jaya,
Selangor, Malaysia.
Tel: +60 3 7842 7299
Fax: +60 3 7842 7399
sales@gavazzi-asia.com

CHINA - Carlo Gavazzi Automation
(China) Co. Ltd.
Unit 2308, 23/F.,
News Building, Block 1, 1002
Middle Shennan Zhong Road,
Shenzhen, China
Tel: +86 755 83699500
Fax: +86 755 83699300
sales@carlogavazzi.cn

HONG KONG - Carlo Gavazzi
Automation Hong Kong Ltd.
Unit 3 12/F Crown Industrial Bldg.,
106 How Ming St., Kwun Tong,
Kowloon, Hong Kong
Tel: +852 23041228
Fax: +852 23443689

OUR COMPETENCE CENTRES AND PRODUCTION SITES

DENMARK - Carlo Gavazzi Industri A/S
Hadsten

MALTA - Carlo Gavazzi Ltd
Zejtun

ITALY - Carlo Gavazzi Controls SpA
Belluno

LITHUANIA - Uab Carlo Gavazzi Industri Kaunas
Kaunas

CHINA - Carlo Gavazzi Automation
(Kunshan) Co., Ltd.
Kunshan

HEADQUARTERS

Carlo Gavazzi Automation SpA
Via Milano, 13 - I-20020
Lainate (MI) - ITALY
Tel: +39 02 931 761
info@gavazziautomation.com



CARLO GAVAZZI
Automation Components

Energy to Components!

