DMG 100 - 110

Measured value

Unit of measure

Type of measurement

Bar graph

Scrolling text for alarms, user messages, parameter settings and active energy measurements

Integrated opto-isolated RS485 serial port (DMG 110 only)

Subpage indication

Instantaneous, maximum, minimum, average values and maximum demand

The main features include an intuitive and easy-to-read LCD interface, excellent measurement accuracy (±0.5% for voltages and currents) and extended power supply compatibility (100...240VAC).

Main measurements and functions include:

- Voltage: phase, line and phase to neutral
- Phase current (calculated neutral current)
- Power: apparent, active, reactive per phase and total
- Phase and total power factor
- Frequency
- Maximum, average and minimum values for all measurements
- Maximum power and current demand
- Voltage and current asymmetry
- Voltage and current harmonics up to the 15th order
- Total harmonic distortion (THD) of voltages and currents
- Partial and total active, reactive and apparent energy meters (phase and system)
- Programmable partial and total hour counters
- Phase active power unbalance.

DMG 100 - 110

LCD display

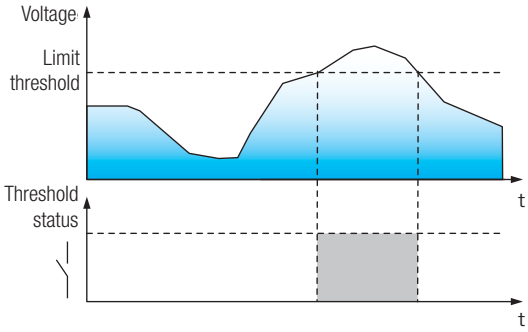
Backlit icon display for good visibility even in poor lighting.
Scrolling text:

- Alarm messages configured by the user
- Help messages for the user
- Description of setup menu and parameters

Text is available in 6 languages: English, Italian, French, Portuguese, Spanish and German.

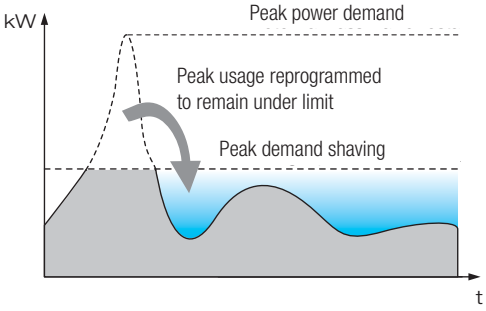
Limit thresholds

Up to 4 independent limit thresholds can be setup for all available measurements to generate alarms or enable counting (e.g. effective hours of energy consumption). Users can program thresholds for maximum values, minimum values or both, with activation and deactivation delays (to protect systems against unnecessary trippings) and hysteresis thresholds to avoid rapid oscillations when close to a tripping value.



Alarms and messages with flashing display

Four user-programmable alarms with descriptive text can be configured for each limit threshold. When an alarm is triggered, a programmable message is displayed on a dedicated page. A dedicated parameter is provided for users to select flashing of the display backlight in case of alarms. This makes alarm conditions easier to see even from a distance.



Maximum power demand management

Utility-user contracts often stipulate a limit for maximum power demand, calculated as an average over a time window. DMG100 and DMG110 multimeters include functions that allow users to control demand limits:

- A limit threshold can be set for average power demand.
- The devices provide 4 methods for calculating average power demand to suit different operating requirements:
  - Fixed window
  - Mobile window
  - Synchronisation by serial bus (Modbus) message.

HOW TO ORDERS

DMG 100 - DMG 110

Code	Description
DMG 100	Modular 4U multimeter with backlit LCD icon display, auxiliary power supply 100...240VAC / 115...250VDC
DMG 110	Modular 4U multimeter with backlit LCD icon display, auxiliary power supply 100...240VAC / 115...250VDC, with integrated RS485 serial port

Technical specifications

- Auxiliary power supply: 100...240VAC / 115...250VDC
- Voltage measurement range: 50...720VAC
- Suitable for use in medium voltage systems with voltage transformer
- Rated input current: 1A or 5A
- Frequency measurement range: 45...66Hz
- TRMS voltage and current measurements
- Measurement accuracy:
  - Voltage: ±0.5% (50...720VAC)
  - Current: ±0.5% (0.1...1.1 In)
  - Power: ±1% f.s.
  - Frequency: ±0.05%
  - Active energy: Class 1 (IEC/EN 62053-21)
  - Reactive energy: Class 2 (IEC/EN 62053-23)
- Display of voltage and current harmonics up to the 15th order
- Modbus-RTU, ASCII communication protocol
- Compatible with Synergy and Xpress software (DMG 110 only)
- Modular 4U housing
- IEC protection rating: IP40 on front; IP20 at terminals.

Certifications and compliance

Certifications obtained: EAC, cULus (both pending).
Comply with standards: IEC/EN 61010-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, UL 61010-1, CSA C22-2 n°61010-1.

Xpress configuration and remote control software

provides for:

- Transfer parameter settings from PC to DMG 110 and vice-versa
- Read measurements
- Display events and alarms
- Send commands.

Synergy energy management software

to supervise and control (via Web server) the electrical parameters measured by LOVATO Electric devices with a communication port.

In addition to providing datalogs and simple, user-configured Web pages, it can also be used to:

- Configure alarms (for sending by email)
- Make and view trend graphs
- Send commands to devices
- Energy usage by time slots.

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