

# Electromechanical polyphase meters

## E1000 Series



Elster's global meter  
Designed and manufactured with the  
most advanced engineering techniques.

### E1000 Series

- Greater reliability
- Greater reproducibility, resulting from automated processes
- Greater calibration stability
- Display enables enhanced view - with possibility of up to 7 digits
- Versions developed for compliance with ABNT, ANSI, BS, COPANT, DIN, IEC and IRAN standards

The new series of polyphase watt-hour meters from Elster is the result of a Global joint development by Elster's Measurement Units all over the world.

The global market is receiving the state of the art - the most precise, modern and sophisticated - which represents a great step up on the polyphase electric energy metering.

The two and three element versions are ideal for residential, commercial and industry facilities. The constant concern with total quality at all levels of the manufacturing process

ensures the nearly unaltered performance of these meters across the most diverse operational and environmental condition changes. Variations in temperature, humidity, position, voltage, frequency and external magnetic fields affect little these meters, which sustain its precision throughout the entire operational range.

### Flexibility on the usage of materials

The E1000 series presents the possibility of usage of the following materials:

- **Cover:** Glass or transparent Polycarbonate with protection against ultra-violet rays
- **Block cover:** Black engineering plastic or transparent polycarbonate
- **Base:** Aluminum or engineering plastic
- **Frame:** lightweight and sturdy Aluminum-silicon alloy,
- **Magnet:** With steel-silicon alloy core rigidly mounted to reduce vibrations. Any combination of these materials is possible.

### Production technology

The quality of Elster meters is the result of rigid control procedures enforced from the inspection of basic components received until the product expedition. The manufacturing process, based on production cells, is one of the most modern, focused on personnel training and cleanliness of the industrial environment. Modern equipment for calibration and testing and automated tracking system ensure the final quality of the product.



### Environmental Concern

Following the environmental protection guidelines, ABB only utilizes on its meters materials entirely recyclable, such as glass, aluminum and polycarbonate, which also provide enhanced lightness and superior insulation. This concern with minimizing the production of residues granted Elster the ISO 14001 environmental regulation certification.

### Against fraud, in favor of usefulness

Due to a special interlock, the meter cover can only be removed after the removal of the terminal block cover. Despite the acceptance of traditional seals a new fast fitting seal can be used. The fixation of the covers is screw less, ensuring practical assembly and disassembly of the meter not to mention the increased protection against foreign objects infiltration.

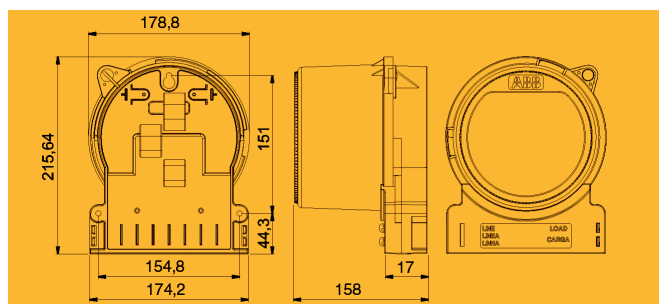
## Main Characteristics

- Class 2% accuracy;
  - Exceeds the requirements of IEC, IRAM, ANSI, COPANT, ABNT, DIN,BS standards
  - Maximum Overload 800% / 400%;
  - Easy maintenance;
  - Mount assembly;
  - Mechanical gear (Optional);
  - Distinct concepts on the calibration adjustments ensuring greater stability;
  - Indirect metering version;
  - Monodisk aluminum rotor with differential with marks for different calibration processes. .
  - Repulsion-type magnetic damping, preventing attrition loss and increasing the lifetime of the meter;
  - Magnetic braking composed by two special alloy (Alnico V) magnets of elevated coercive force, highly resistant to demagnetization.
  - Expanded, low-attrition, self positioning seven-digit thermoplastic cyclometer.
  - Symmetrical or sequential connection capability.
- Internal connections (link) with possibility of external connection link or link less.

| TECHNICAL DATA                              |           | 3 Elements |           | 2 Elements |           |
|---|-----------|------------|-----------|------------|-----------|
| Nominal voltage                             | V         | 120        | 240       | 120        | 240       |
| Nominal current                             | V         | 15         | 15        | 15         | 15        |
| Maximum current                             | A         | 120        | 120       | 120        | 120       |
| Frequency                                   | Hz        | 50/60      | 50/60     | 50/60      | 50/60     |
| Disk constant (Kd)                          | Wh/r      | 6,66       | 13,33     | 10         | 20        |
| Rotor speed (@ In)                          | RPM       | 9          | 9         | 9          | 9         |
| Rotor torque (@ In)                         | gf.cm     | 5,8        | 5,8       | 6,75       | 6,75      |
| Loss in voltage circuit (per element)       | W         | VA         | 1,6 / 1,2 | 7,5 / 6,0  | 1,6 / 1,2 |
|   | 7,5 / 6,0 | 1,6 / 1,2  | 7,5 / 6,0 | 1,6 / 1,2  | 7,5 / 6,0 |
| Loss in current circuit (@ In, per element) | W         | VA         | 0,23      | 0,30       | 0,23      |
|   | 0,30      | 0,23       | 0,30      | 0,23       | 0,30      |
| Rotor mass                                  | g         | 25         | 25        | 29         | 29        |
| Meter mass                                  | kg        | 2,0        | 2,0       | 2,7        | 2,7       |

For further information contact our sales sector.

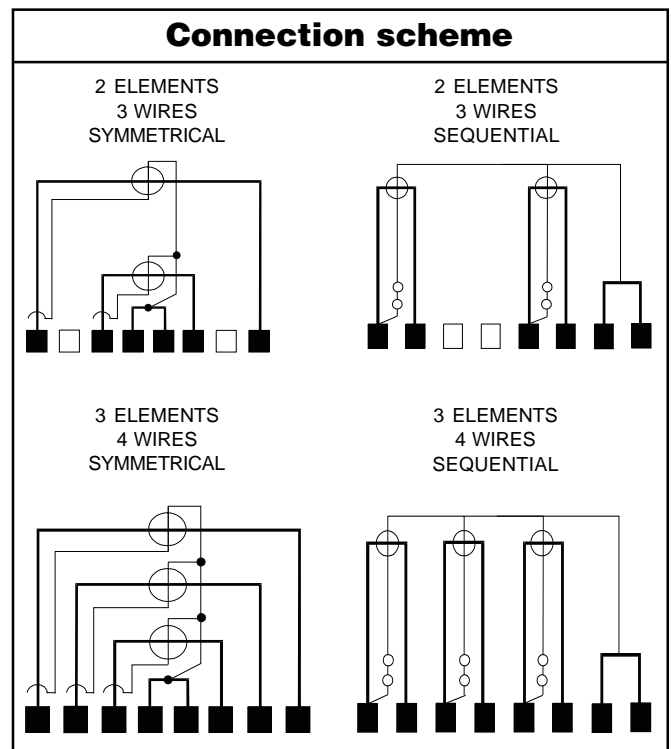
## External dimensions



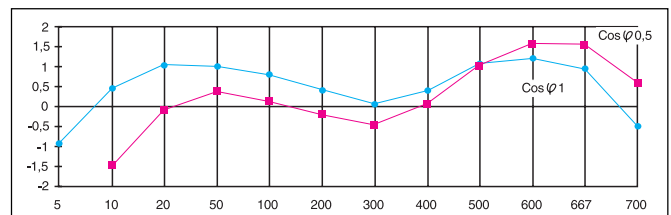
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## 2 elements



## 3 elements

