

- Testeur de sens de rotation des phases
- Phase rotation indicator
- Drehfeldrichtungsanzeiger
- Tester di senso di rotazione delle fasi
- Comprobador de sentido de rotación de fases

C.A 6608



FRANÇAIS
ENGLISH
DEUTSCH
ITALIANO
ESPAÑOL

Notice de fonctionnement
User's manual
Bedienungsanleitung
Manuale d'uso
Manual de instrucciones

 **CHAUVIN[®]
ARNOUX**
CHAUVIN ARNOUX GROUP

You have just purchased a **CA 6608** phase rotation indicator and we thank you for your confidence.

For best results from your device :

- **read** this user manual attentively,
- **observe** the precautions for its use.

Meaning of symbols used on the instrument :

	Warning, possible hazard. Please refer to the user's manual.
	Instrument protected by double insulation.
	The CE marking guarantees compliance with European directives and with the regulations governing EMC.
	Selective sorting of wastes for the recycling of electrical and electronic equipment within in the European Union. In conformity with directive WEEE 2002/96/EC : this equipment must not be treated as household waste.
	Earth.

Definitions of the measurements categories :

- **CAT I** : Circuits not directly connected to the network and specially protected.
Example : protected electronic circuits.
- **CAT II** : Circuits directly connected to the low-voltage installation.
Example : power supply to household electrical appliances and portable tools.
- **CAT III** : Power supply circuits in the installation of the building.
Example : distribution panel, circuit-breakers, fixed industrial machines or devices.
- **CAT IV** : Circuits supplying the low-voltage installation of the building.
Example : power lines, meters, and protection devices.

1 PRECAUTIONS AND SAFETY IN USE

This instrument complies with safety standard IEC 61010 - 1, Ed 2 of February 2001.

For your own safety, and to prevent any damage to your instrument, you must follow the instructions given in this manual.

This instrument can be used on category III electrical circuits not exceeding 600V with respect to earth. It must be used indoors, in an environment not exceeding pollution level 2, at an altitude of

not more than 2000m. The instrument can therefore be used in complete safety on 400V and 690V three-phase networks in an industrial environment.

- For safety reasons, you must use only measurement leads having a voltage rating and category at least equal to those of the instrument and compliant with standard IEC 61010-031.
- Do not use if the housing is damaged or not correctly closed.
- Do not place your fingers near unused terminals.
- If the instrument is used other than as specified in this manual, the protection provided by the instrument may be impaired.
- Do not use this instrument if it seems to be damaged.
- Check the integrity of the insulation of the leads and of the housing. Replace damaged leads.
- Be prudent when working in the presence of voltages exceeding 70Vdc or 33Vrms and 46.7Vpp; such voltages can cause a risk of electrocution. The use of individual protections is recommended in some cases.
- Always keep your hands behind the physical guards of the probe tips or alligator clips.
- Always disconnect all leads from the measurement and from the instrument before opening the housing.

English

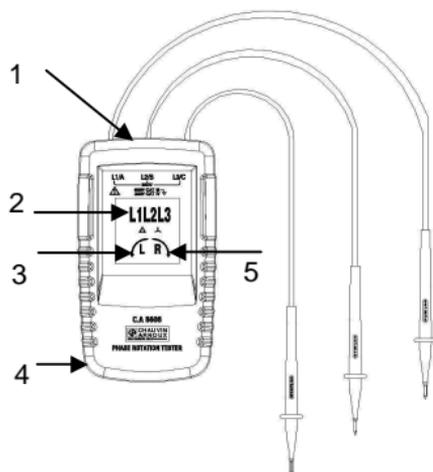
2 UNPPACKING - PACKAGING

All instruments undergo mechanical and electronic testing before being dispatched. Every precaution is taken to ensure that the instrument reaches you in good condition. If there is any damage, inform the carrier immediately.

3 INTRODUCTION

The CA 6608 is designed to facilitate installing three-phase electrical power supply networks by allowing a rapid determination of the direction of phase rotation

4 DESCRIPTION OF THE INSTRUMENT



- 1 Input jack for test leads
- 2 Symbols L1, L2, and L3
- 3 Clockwise rotation LCD
- 4 Summary of instructions on back of instrument
- 5 Anticlockwise rotation LCD

5 USING THE INSTRUMENT

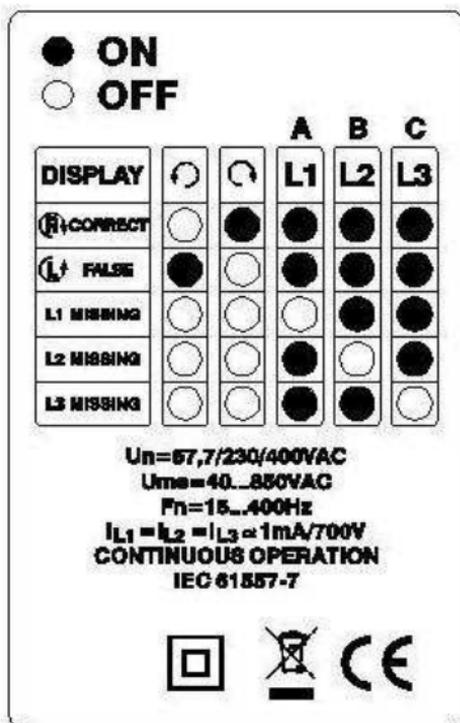
5.1 DIRECTION OF PHASE ROTATION

On a three-phase electrical network:

1. connect the 3 leads to the instrument, matching the markings.
2. connect the 3 alligator clips to the 3 phases of the network to be tested.
3. the lighting of the display indicates that the instrument is in operation.

When the 3 phase indicators (L1, L2, L3) are lit, the clockwise (or anticlockwise) rotation arrow indicates the direction of phase rotation.

Warning: the wrong direction of rotation may be displayed if a lead is connected by mistake to the neutral of the network. The table below (reproduced on the back of the instrument) summarizes the various display possibilities.



6 TECHNICAL SPECIFICATIONS

6.1 ELECTRICAL CHARACTERISTICS

Maximum rated voltage: 600V, CAT III

Operating voltage: 40 to 850VAC between phases

Frequency of operation: 15 to 400Hz

English

Test current (per phase): 1mA

Power supply: self-powered by the measurement inputs

6.1 MECHANICAL CHARACTERISTICS

Dimensions (H x L x P) : 130 x 69 x 32mm

Weight : 130g

6.2 ENVIRONMENTAL CHARACTERISTICS

Operating temperature: 0 to 40°C

Storage: -20°C < T < +50°C, RH < 80%

Operating relative humidity: 15 to 80%

Operating altitude: less than 2000m

Operating pollution level: less than 2

6.3 COMPLIANCE WITH STANDARDS

IEC 61010-1, DIN VDE 0411;

IEC 61557-7, DIN VDE 0413-7;

Tightness : IP 40 (as per IEC 60529 Ed.92)

7 MAINTENANCE

7.1 CLEANING

Disconnect from all sources of electricity before cleaning, servicing, dismantling.

Clean only with a soft cloth moistened with soapy water, then plain water.

Dry completely and perfectly before using again.

7.2 METROLOGICAL CHECK

As for any measuring instrument, an annual functional check is recommended.

8 WARRANTY

This instrument is warranted against defects of materials and workmanship, in conformity with the general conditions of sale. During the warranty period (1 year), the instrument must be repaired only by the manufacturer, who reserves the right to repair the instrument or to replace it in whole or in part.

The warranty does not cover the following cases:

1. improper use of the instrument or use with incompatible equipment;
2. changes made to the instrument without the explicit permission of the manufacturer's technical department;
3. work done on the instrument by persons not authorized by the manufacturer;
4. adaptation to a specific application not anticipated in the definition of the instrument or the user's manual;
5. shocks, falls, or immersion.

9 REPAIR

For any repairs, whether during or after the warranty period, send the equipment to your dealer or to one of the Chauvin-Arnoux Métrix-approved regional Manumasure Technical Centres.

English

Information and coordinates on request:

Tel.: +33 (0)2 31 64 51 43 Fax: +33 (0)2 31 64 51 09

If you send the instrument back, preferably use the original packaging and state the reasons for the return as clearly as possible in a note enclosed with your instrument.

10 PER ORDER

Phase indication rotator CA6608 P01191304

Delivered with the following items:

- 3 test leads - black, red, blue
- 3 black alligator clips
- Carrying bag,
- User's manual.