

IEE 16th:

Safety at all costs

C.A 6115

Electrical
installation
tester

Insulation

RCD

Earth

Loop

Continuity

Phase rotation



■ One easy to use instrument that replaces your set of single-function testers.

■ Complies with all recent standards for inspection and test for electrical safety of installations.

CE

 **CHAUVIN
ARNOUX**

The most compl

Test and certify the electrical safety of your installation, in accordance with European IEE 16th, NF C 15-100, VDE 0100, NIN/NIV, ÖVE EN-1, CEI 164-8 standards.

NUMEROUS APPLICATIONS

The CA 6115 has its place in the domestic, commercial or industrial sectors: electricians can use it to verify new work and renovations, and verification institutes are able to fully certify the safety of the infrastructures which they are responsible for inspecting. With the CA 6115, measurements recommended by European-standards can be carried out on electrical installations easily and without any risk of error. In addition, it conforms to the new International IEC/EN 61557 standard, which calls for high level specifications and performance in installation test instruments.

FULLY-FEATURED DESIGN

- Its large rear-lit LCD screen allows the user to read off values in total comfort, at any time of day!
- To avoid handling errors, it automatically tests the installation it is connected to before performing each measurement: position of the phase, presence of voltage on the earth, earth disconnected... If there is a problem, no measurements can be made.
- The user can programme limits within each function, which activate visual or audible alarms (beeps)
- It compensates for measurement lead resistance (a plus for continuity and loop measurement).
- The C.A 6115 has an environmentally-friendly battery (NiMH). It can be charged up quickly, by plugging it directly into the mains (2 hours for a full charge 0 - 100%). In the field, the instrument is always operational, ready for use (no need to go looking for replacement batteries).



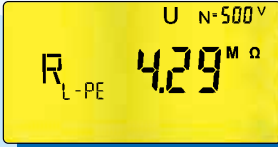
Starting the test or measurement

Scrolling through the various results

Setting of the various measurement parameters, alarm thresholds,...

ete installation tester of

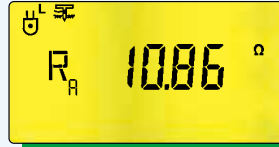
Insulation



Autoranging measurement to 600 M

- Swift automatic measurement between 3 points
- 100 V, 250 V and 500 V DC test voltages

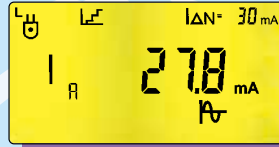
Earth



You can work faster, without disconnecting the earthing rod!

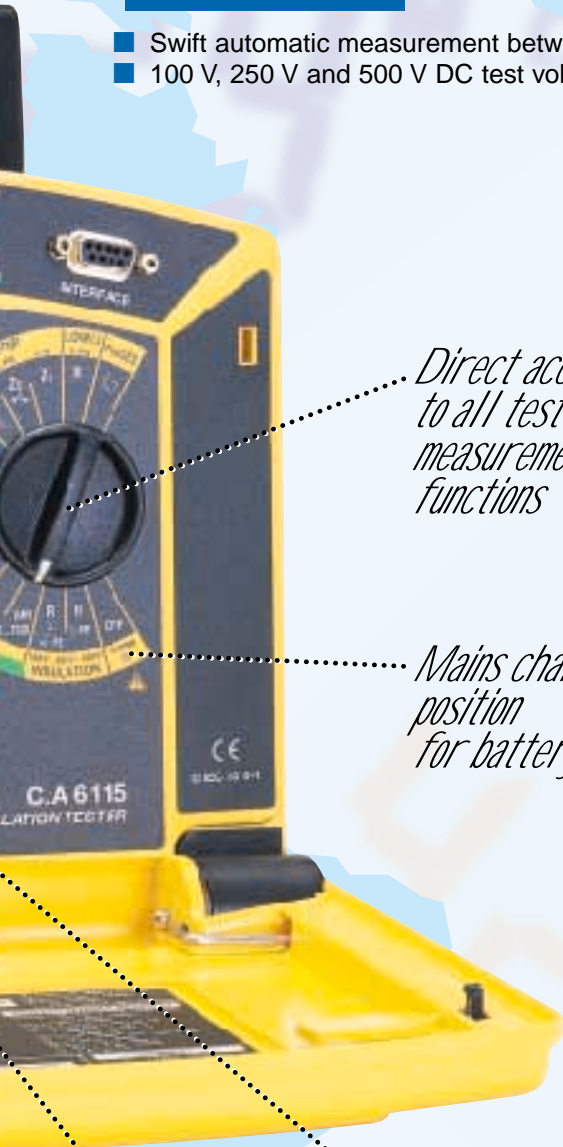
- Measurement with one auxiliary rod only, earth-to-earth
- Selective earth measurement (1 earth out of several others in parallel) using a current clamp
- Automatic save or print modes, at a programmable rate

RCD



Fully test all your differential circuit-breakers, even non-standard models (old 650 mA for example)!

- 10, 30, 100, 300 and 500 mA standard ranges
- Range variable from 6 to 1000 mA per 1 mA increment
- Testing of AC-type (alternating) differential circuit-breakers or A-type (alternating + pulsed direct)
- Trip failure test at $1/2 I_{\Delta N}$
- Measurement of trip time at $I_{\Delta N}$, $2 I_{\Delta N}$ (selective differential), $5 I_{\Delta N}$, 150 mA or 250 mA
- Measurement of exact activation current (high current ramp \leq accuracy)
- Additional automatic tests: fault voltage, loop resistance, short-circuit current and earth resistance



Direct access to all test and measurement functions

Mains charge position for battery

Values can be saved or read off

Results can be printed or transferred

its generation

Continuity



With the C.A 6115, you can choose the type of beep you wish! (programmable limits)

- Standard mode: automatic current direction reversal and average value calculation
- Practical mode: continuous circuit generates immediate "beep"

Loop



Our "ALT" system to prevent tripping of 30 mA differentials is so effective that we have patented it!

- Measurement of impedance, resistance and short-circuit current of phase-earth, phase-neutral and phase-phase loops
- Exceptional 0,001 Ω resolution
- Automatic save or print modes, at a user-definable rate

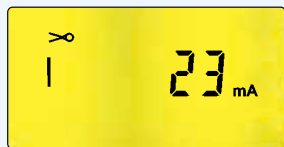
Phase rotation



Plug in all 3 phases and read off the direction of rotation: it's as simple as that!

- Phase rotation direction clearly indicated on the display

Current



Leak current measurement: a vital function for detecting faults!

- Automatic I, U and f measurement upon connection, on all switch positions
- Measurement of leak current starting from 4 mA
- Measurement of alternating current up to 300 A
- Two types of current clamp available, according to wiring section

INSULATION (IEC/EN 61557- 2)

- Rated voltage: 100 V - 250 V - 500 V DC
- Range: 0,05...300 / 600 MΩ
- Resolution: 1kΩ...1MΩ
- Accuracy : +/- (6% measurement + 1 digit)
- Rated current: > 1 mA DC
- Short-circuit current: < 12 mA DC

EARTH (IEC/EN 61557- 5)

- Power supply: 95...145 V 175...300 V AC
- Frequency: 15,3...17,5 Hz 45...65 Hz
- Range: 0,15 Ω...10 kΩ
- Resolution: 0,01...10 Ω
- Accuracy: +/- (10% mesure + 3 digit)
- Method: only 1 auxiliary rod (earth to earth)
- Selective measurement of earth (one particular earth out of several others in parallel) possible, with clamp..
- Values can be saved or printed at programmable intervals.

RCD (IEC/EN 61557- 6)

- L-N-PE Voltage: 95...145 V 175...300 V AC
- Frequency: 15,3...17,5 Hz 45...65 Hz
- IΔn = 10-30-100-300-500 mA or 6...1000 mA (in 1 mA increments)
- Trip-failure test: at 1/2 IΔn Duration: 1000 ms
- Measurement of trip time: at IΔn, 2 IΔn (selective), 5 IΔn, 150 mA, 250 mA
- Duration: 500 ms Resolution: 0,1 ms Accuracy: ± 2 ms
- Measurement of trip current / time: 0,5...1,033 IΔn ramp, in 3% increments
- Duration of each increment: 200 ms
- Fault voltage: 1,5...100 V AC

CONTINUITY (IEC/EN 61557- 4)

- Test voltage: 18 V DC
- Rated I: > 200 mA to 10 Ω
- Range: 0,16 Ω...2 kΩ
- Resolution : 0,01...1 Ω
- Accuracy: +/- (5% measurement + 4 digit)

LOOP (IEC/EN 61557- 3)

- L-N-PE Voltage: 95...145 V 175...300 V 330...440 V AC
- Frequency: 15,3...17,5 Hz 45...65 Hz
- Range: 0,08 Ω...200 Ω (resistance and impedance)
- Resolution : 0,001...0,1 Ω
- Accuracy: +/- (5% mesure + 3 digit)
- Short-circuit current calculation: 0,5 A...30 kA
- **Patented "ALT" system: does not trip 30 mA RCD.**
- Values can be saved or printed at programmable intervals.

PHASE ROTATION (IEC/EN 61557- 7)

- Voltage: 20...440 V AC
- Frequency: 15,3...450 Hz

CURRENT / VOLTAGE / FREQUENCY

- **Current** range: 4 mA...100 A with an MN 21 clamp and up to 300 A with a C 103 clamp. Resolution: 1 mA...1 A Accuracy : +/- (2% measurement + 1 digit)
- **Voltage** range: 10...440 V AC/DC Resolution: 1 V, Accuracy: +/- (1% measurement + 1 digit)
- **Frequency** range: 15,3...450 Hz Resolution: 0.1...1 Hz, Accuracy: +/- (0.1% measurement + 1 digit)

GENERAL SPECIFICATIONS

- Compliant with IEC 1010-1 standard Cat III 300 V
- Double insulation
- Memory holds 800 measurements
- RS232C Interface
- **Programmable thresholds for each function**
- NiMH battery + internal charger
- Dimensions: 295 x 230 x 108 mm (L x W x D)
- Weight: 2.1 kg

ete installation tester of

High-performance accessories to get the most out of your C.A 6115

Windows software to retrieve your data and set instrument parameters

The C.A 6115 UTILITY programme enables the user to retrieve all the data stored in the instrument. A protocol (measurement summary table) can be set up in no time at all and a file generated for processing with spreadsheet software such as Excel, for example. With this software, all the appliance's parameters can be defined on a PC: modification of programmed thresholds, choice of language for texts printed in the field with the C.A 6115 (French, English, German, Italian or Spanish); the users details are saved in the instrument for automatic generation on printouts,...

Current measurement, another plus!



MN 21 mini current clamp



C 103 current clamp

- Two types of clamps can be used, according to your applications and the sections of your cables.
- Measurement of alternating current up to 300 A
- Measurement of leak current to earth from 4 mA upwards, to ensure rapid location of isolation faults.
- "Selective" measurement of an earth, by clamping one particular earthed cable amid several others in parallel, without disconnecting from the power supply.



Configuration menu



Identification menu



Main menu

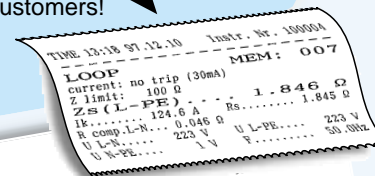
A printout of your measurements directly in the field

The C.A 6115 has two printing possibilities: Either you print a result slip showing the different measurement results, on the A6 serial printer available as an optional accessory. Or you can generate a table summarising all your measurements; in this case, you will use the serial-parallel adapter (also available as an option) to link up with a standard A4 format printer.



The measurement ticket (A6 format): a trace on site for your customers!

The measurement summary table: a highly appreciated protocol!



C.A 6115 - Installation test

Company name: Tel.:

Address: Fax.:

City: Protocol Nr.:

Installation: Instrument number: 200064

Group of installation parts: 001 - 007

U-Limit: 50 V, Frequency mean: 49.99 Hz

Instal- lation part	Loop impedance-input voltage	Loop impedance-input voltage	Loop impedance-input voltage	Search	(R-impedation) R low Ohm	(R-impedation) R high Ohm	(R-impedation) R total Ohm
001	2.74 Ohm 230 V	223 V	223 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm
002	11.71 Ohm 230 V	222 V	222 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm
003	102.3 Ohm 230 V	222 V	222 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm
004	0.349 Ohm 230 V	222 V	222 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm
005	0.349 Ohm 230 V	222 V	222 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm
006	0.349 Ohm 230 V	222 V	222 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm
007	0.349 Ohm 230 V	222 V	222 V	100 Ohm	100 Ohm	100 Ohm	100 Ohm

TO ORDER

Standard version



- C.A 6115 TESTER (GB) P01.1454.12
Comes with a small shoulder bag containing a 2.5 m measurement or charge cable with 2P + E mains plug, a 2.5 m measurement cable with 3 separate leads, 3 touch-pins, 3 crocodile clips, a green 3-m lead + touch-pin and an English user manual.

Customised order

To adapt your order (language of user manual, mains cable...), please complete the chart below:

C	A	6	1	1	5				
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Language of user's manual and lexan label (to be stuck on the lid of the instrument as a reminder for connections) :

English	G	B
French	F	X
German	D	X
Italian	I	X
Spanish	E	X

Mains cable for charging and measurement:

Great Britain	G	B
France/Germany/Spain (schuko)	F	X
Italy	I	X
Switzerland	C	H

Version (*) :

Standard	1
Complete	2

(*) Presentation of standard or complete versions is the same, with operating instructions and the mains cable of your choice.

Complete version



- C.A 6115 + T TESTER (GB) P01.1454.22
Comes with a rigid shoulder bag for the instrument + accessories, a 2.5 m measurement or charge cable with 2P + E mains plug, a 2.5 m measurement cable with 3 separate leads, 3 touch-pins, 3 crocodile clips, a green 3-m lead + touch-pin, an Earth set comprising a 30 m cable on a reel + earthing rod for measurement with the auxiliary rod and an English user manual.

Accessories

- C.A 6115 UTILITY SOFTWARE P01.1019.02
comes with DB9M / DB25F cable + DB25M / DB9F adaptor
- SERIAL PRINTER P01.1029.01
comes with DB9M / DB9M cable
- EARTH KIT P01.1019.03
(30 m cable on reel + earthing rod)
- RIGID SHOULDER BAG P01.2980.31
- PARALLEL SERIAL ADAPTOR P01.1019.04
- C103 CURRENT CLAMP P01.1203.03
- MN21 MINI CURRENT CLAMP P01.1204.18

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