

# C.A 771, C.A 771 IP2X C.A 773, C.A 773 IP2X

## CAT IV 1,000 V Voltage Absence Testers (VATs)



### All **indoor and outdoor low-voltage** applications

Use in extreme conditions: type-S extended climatic class

RCD trip testing

Digital display

Complete integrated Autotest

Extended continuity test ( $R < 2 \text{ k}\Omega$ ,  $60 \text{ k}\Omega$  and  $300 \text{ k}\Omega$ )

Two-pole phase-sequence testing with "2-wire method" up to 400 Hz, suitable for isolating transformers and electrical generator sets



CAT IV 1000V

CEI 61243-3  
edition 2



*Measure up*



# C.A 771 - C.A 773

CAT IV 1,000 V Voltage Absence Testers (VATs)

## STANDARDS

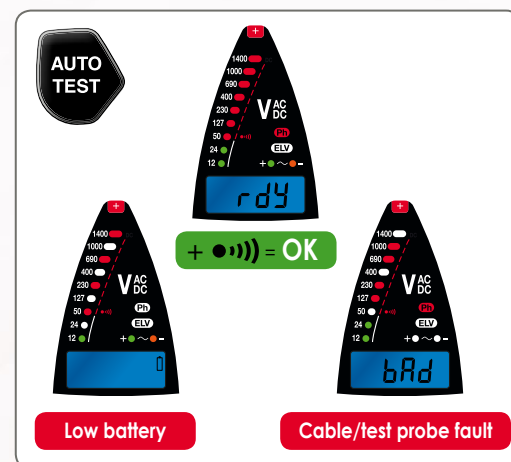
### Voltage Absence Testing: a clearly-defined procedure

In the context of work on installations connected to the electricity distribution network, the standards stipulate that the measurements must be performed with the power off to avoid electrical hazards (EN 50110-1 standard, DIN VDE 0682-401, NF C 18-510, etc.).

To secure the installation and ensure that it is non-current-carrying, there is a **procedure** called **Separation** which imposes the use of a **Voltage Absence Tester**.

### C.A 771 & C.A 773: beyond the standard recommendations

- A **comprehensive integrated autotest** with indication of the type of fault. The C.A.773 also displays a text message for complete information.
- The C.A 771 & C.A 773 VATs benefit from **IP65 protection** for indoor and outdoor use, which is significantly higher than the IP54 rating required by the standard.
- **Extended class**: for extreme environments, the C.A 771 can be used for measurements from -30 °C to +60 °C (type S).
- **Audible and visual continuity** indication up to 100  $\Omega$ , in compliance with the recommendation in Appendix B of the standard.
- The **test probes are removable** to meet specific requirements or to comply with the legislation in certain countries. Various models are available, including IP2X versions.



## FUNCTIONS

### AC and DC voltage testing

Voltage detection takes priority, is automatic and is indicated by distinct visual and audible signals:

- Visual: bargraph
- Audible: loud intermittent beep

Stray voltages can be detected by pressing two buttons simultaneously (double command) in order to switch to low-impedance mode.

### Crucial redundant safety:

An **ELV** (Extra-Low Voltage) LED is a redundant safety feature which lights up when the voltage present is higher than the ELV (50 Vac/120 Vdc). The higher the voltage present, the faster it flashes.

### Single-pole phase detection

You can detect the phase simply by establishing contact with one of the test probes.

### 2-wire phase rotation with microprocessor



Simple and quick, the 2-wire phase rotation function with microprocessor is useful in all circumstances, including on installations powered by an electrical generator set or behind an isolating transformer.

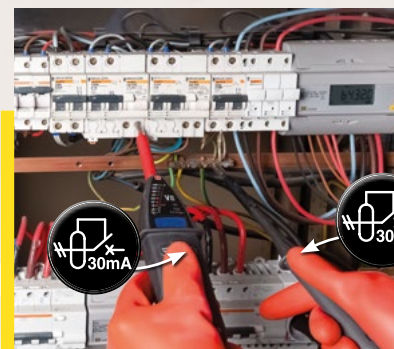
### Continuity and resistance testing



By pressing the continuity button, you can check that the conductors are correctly connected. Continuity ( $R < 100 \Omega$ ) is indicated by a loud, continuous audio signal.

In addition, the C.A 771 offers an extended continuity test and can be used to display the higher values via 3 thresholds (2 k $\Omega$ , 6 k $\Omega$  and 300 k $\Omega$ ). The C.A 773 displays the resistance value directly.

### Residual Current Device (RCD) trip test up to 30 mA



By **simultaneously pressing the double command**, you can cause a fault current sufficient to trip the RCD to flow through a low-impedance load.

## APPLICATIONS

### Voltage up to 1,000 V<sub>AC</sub> / 1,400 V<sub>DC</sub> at up to 800 Hz

The specifications of the C.A 771 and C.A 773 mean they can be used for work on all **LV electrical networks**, whether they are electricity distribution networks or the more specific networks encountered in naval or aviation applications.

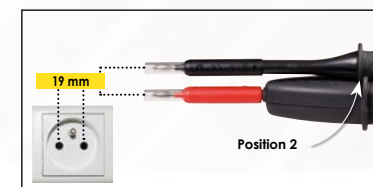
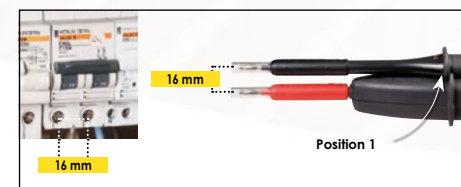
### Climatic conditions

The type-S extended climatic class allows use in extreme temperature conditions. This means it offers an operating range from -30 °C to +60 °C for applications such as:

- Installations at altitude (mountains, etc.), underground installations, etc.
- Refrigeration installations, greenhouses, etc.,
- Service vehicles (emergency, army, etc.)
- The IP65 protection rating also ensures maximum protection against solid pollutants (dust) and liquid pollutants (projections), allowing both indoor and outdoor use.

### Ergonomics specially designed for use in the field

- Digital display (C.A 773)
- 2 moulded test probes to ensure excellent handling while protecting against falls and shocks
- Built-in torch to light the point of measurement
- Removable test probes and 2 positions provided on the VAT for 16 or 19 mm spacing



## ACCESSORIES

The C.A 753 measurement adapter can be used for measurements in total safety on European 2P+E and Schuko sockets.

Its design guarantees mechanical and electrical contact with all test probes ( $\varnothing 2$  mm,  $\varnothing 4$  mm, IP2x, etc.).

The presence of a voltage ( $> 200$  V) and the phase position are also indicated.



**Removable accessories according to the requirements**  
Isolated test probes 2 or 4 mm in diameter, IP2X tip protection and test probes.



## C.A 771, C.A 771 IP2X & C.A 773, C.A 773 IP2X

### CAT IV 1,000 V Voltage Absence Testers (VATs)

|                                        | C.A 771                                                                                                                                                                           | C.A 773                                                 |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Display                                | LEDs                                                                                                                                                                              | LEDs + backlit digital display                          |
| Voltage absence testing (VAT)          | $12 \text{ VAC} \leq U \leq 1,000 \text{ VAC} \bullet 12 \text{ VDC} \leq U \leq 1,400 \text{ VDC}$                                                                               |                                                         |
| Voltage                                |                                                                                                                                                                                   | 1.0 V to 299.0 VAC/DC<br>300 V to 1,000 VAC / 1,400 VDC |
| Frequency                              | DC, 162/3 to 800 Hz                                                                                                                                                               |                                                         |
| Impedance                              | > 500 kΩ                                                                                                                                                                          |                                                         |
| Max. peak current                      | 3.5 mA RMS                                                                                                                                                                        |                                                         |
| Polarity indication                    | Yes                                                                                                                                                                               |                                                         |
| Redundant hazardous-voltage indication | The ELV (Extra-Low Voltage) LED indicates that the voltage is higher than the SELV (Safety Extra-Low Voltage) with the rate at which it flashes proportional to the voltage level |                                                         |
| Stray voltage detection                | Yes (by low-impedance load switching)                                                                                                                                             |                                                         |
| RCD tripping                           | Yes (by low-impedance load switching)<br>(approx. 30 mA at 230 V)                                                                                                                 |                                                         |
| Phase/Neutral identification           | Above 50 V (45 - 65 Hz)<br>Above 150 V (162/3 - 45 Hz)                                                                                                                            |                                                         |
| Continuity & Resistance                |                                                                                                                                                                                   |                                                         |
| Buzzer trigger threshold               | 100 Ω typical (150 Ω max.)                                                                                                                                                        |                                                         |
| Extended continuity test (resistance)  | 2 kΩ, 60 kΩ, 300 kΩ                                                                                                                                                               | 0.5 Ω to 2,999 kΩ                                       |
| Test current / Open-circuit voltage    | ≤ 1 mA / ≤ 3.3 V                                                                                                                                                                  |                                                         |
| Phase rotation                         | 2-wire method with microprocessor                                                                                                                                                 |                                                         |
| Ph/Ph voltage                          | 50 V ≤ U ≤ 1,000 VAC (45 - 400 Hz)                                                                                                                                                |                                                         |
| Buzzer                                 | Intermittent beep for Voltage Detection • Continuous beep for continuity                                                                                                          |                                                         |
| Standards and electrical safety        | IEC 61243-3:2009, EN 61243-3:2010, IEC 61010 1,000 V CAT IV                                                                                                                       |                                                         |
| Enclosure protection                   | IP65                                                                                                                                                                              |                                                         |
| Climatic conditions                    | -30 °C to +60 °C (Class S)                                                                                                                                                        | -15 °C to +45 °C (Class N)                              |
| Battery life                           | > 5,000 x 10 s measurements                                                                                                                                                       | > 2,500 x 10 s measurements                             |
| Dimensions / weight                    | 228 x 60 x 39 mm (without test probes) / 350 g approx.                                                                                                                            |                                                         |

#### References to order

|                               |            |
|-------------------------------|------------|
| C.A 771 DIT CAT IV 1 kV ..... | P01191771  |
| C.A 771 DDT IP2X .....        | P01191771A |
| C.A 773 DIT CAT IV 1 kV ..... | P01191773  |
| C.A 773 DDT IP2X .....        | P01191773A |

#### Accessories & replacement parts

|                                      |            |
|--------------------------------------|------------|
| CAT IV test probes for VATs .....    | P01102123Z |
| Test probes Ø 2 mm for VATs .....    | P01102124Z |
| Test probes Ø 4 mm for VATs.....     | P01102125Z |
| Probe-tip protection for VATs .....  | P01102126Z |
| CAT IV IP2X probes for VATs .....    | P01102127Z |
| IP2X Ø 4 mm probes for VATs .....    | P01102128Z |
| MultiFix bag, 120 x 320 x 60 mm..... | P01298076  |
| C.A 753 measurement adapter .....    | P01191748Z |

for European 2P+E sockets

#### State at delivery

- The C.A 771 and C.A 773 are delivered with 1 operating manual in 5 languages, 2 x 1.5 V LR03/AAA batteries, 1 set of removable test probes Ø 2 mm with crystal safety cover, 1 probe-tip protection, 1 Velcro strap.
- The C.A 771 IP2X and C.A 773 IP2X are delivered with 1 operating manual in 5 languages, 2 x 1.5 V LR03/AAA batteries, 1 set of IP2X removable test probes Ø 4 mm, 1 Velcro strap.

For informations and ordering

**FRANCE**  
**Chauvin Arnoux**  
 190, rue Championnet  
 75876 PARIS Cedex 18  
 Tel: +33 1 44 85 44 38  
 Fax: +33 1 46 27 95 59  
 export@chauvin-arnoux.fr  
 www.chauvin-arnoux.com

**UNITED KINGDOM**  
**Chauvin Arnoux LTD**  
 Unit 1 Nelson Ct, Flagship Sq, Shaw Cross Business Pk  
 Dewsbury, West Yorkshire - WF12 7TH  
 Tel: +44 1924 460 494  
 Fax: +44 1924 455 328  
 info@chauvin-arnoux.co.uk  
 www.chauvin-arnoux.com

**MIDDLE EAST**  
**Chauvin Arnoux Middle East**  
 P.O. BOX 60-154  
 1241 2020 JAL EL DIB - LEBANON  
 Tel: +961 1 890 425  
 Fax: +961 1 890 424  
 camie@chauvin-arnoux.com  
 www.chauvin-arnoux.com

**CHAUVIN**  
**ARNOUX**  
 GROUP