

# CA 771, CA 771 IP2X CA 773, CA 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 k $\Omega$ , 60 k $\Omega$  and 300 k $\Omega$ )

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





C.A 773

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C.A 771





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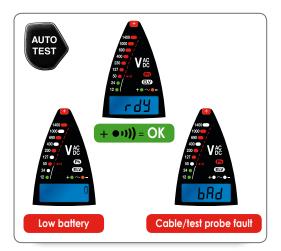
## **STANDARDS**

### 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**.

### CA 771 & CA 773: beyond the standard recommendations

- A **comprehensive integrated autotest** with indication of the type of fault. The CA773 also displays a text message for complete information.
- The CA 771 & CA 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 CA 771 can be used for measurements from -30 °C to + 60 °C (type S).
- **Audible and visual continuity** indication up to 100 Ω, 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. Various models are available, including IP2X versions (required by the EN 61243 standard, for example).



## **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.

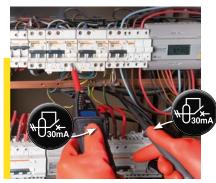
### Continuity and resistance testing



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 CA 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 CA 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 VAC / 1,400 VDC at up to 800 Hz

The specifications of the CA 771 and CA 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.

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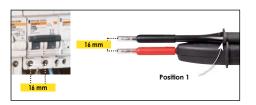
### Climatic conditions

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 (CA 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 CA 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 ( $\emptyset$  2 mm,  $\emptyset$  4 mm, IP2x, etc.).

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

A Report





**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)

	CA 771	CA 773	
Display	LEDs	LEDs + backlit digital display	
Voltage absence testing (VAT)			
	12 Vac ≤ U ≤ 1,000 Vac • 12 Vdc ≤ U ≤ 1,400 Vdc		
Voltage		1.0 V to 299.0 Vac/dc 300 V to 1,000 Vac / 1,400 Vdc	
Frequency	DC, 16 <sub>2/3</sub> 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) (approx. 30 mA at 230 V)		
Phase/Neutral identification	Above 50 V (45 - 65 Hz) Above 150 V (16 <sub>2/3</sub> - 45 Hz)		
Continuity & Resistance			
Buzzer trigger threshold	100 Ω typical (	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/EN 61243-3, 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

CA 771 DTT CAT IV 1 kV	P01191771
CA 771 DDT IP2X	P01191771A
CA 773 DTT CAT IV 1 kV	P01191773
CA 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
CA 753 measurement adapter	P01191748Z
for European 2P+E sockets	

### State at delivery

- The CA 771 and CA 773 are delivered with 1 operating manual in 5 languages, 2 x 1.5 V LR06/AA batteries, 1 set of removable test probes Ø 2 mm with crystal safety cover, 1 probe-tip protection, 1 Velcro strap.
- The CA 771 IP2X and CA 773 IP2X are delivered with 1 operating manual in 5 languages, 2 x 1.5 V LR06/AA batteries, 1 set of IP2X removable test probes Ø 4 mm, 1 Velcro strap.

For informations and ordering		

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