

C.A. 771 C.A. 773

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)

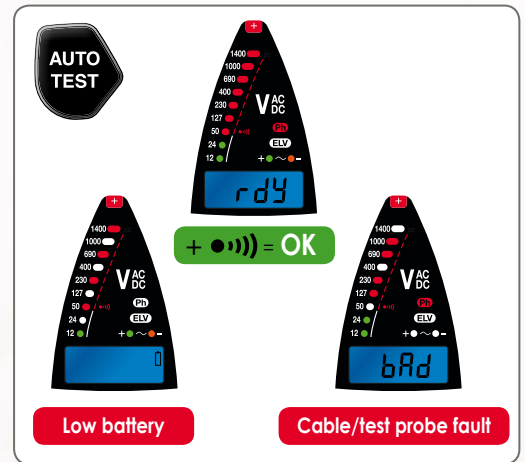
STANDARDS

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 -22 °F to + 140 °F (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.



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.

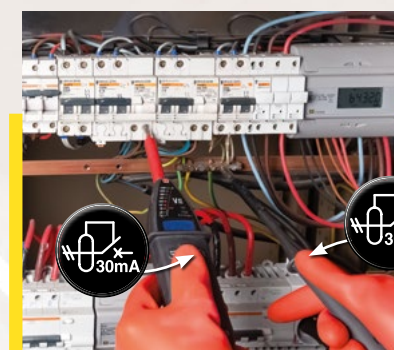
Continuity and resistance testing



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 kΩ, 6 kΩ and 300 kΩ). 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_{AC} / 1,400 V_{DC} 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.

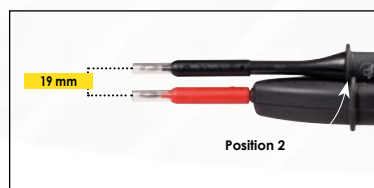
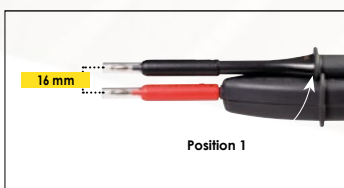
Climatic conditions

The type-S extended climatic class allows use in extreme temperature conditions. This means it offers an operating range from -22°F to +140°F for applications such as:

- Installations at altitude (mountains, etc.), underground installations, etc.
- Refrigeration installations, greenhouses, etc.,
- Service vehicles (emergency, military, 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 molded test probes to ensure excellent handling while protecting against falls and shocks
- Built-in LED to light the point of measurement
- Removable test probes and 2 positions provided on the VAT for 16 (.63") or 19 (.75") mm spacing



C.A 771 & C.A 773

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

	C.A 771 (CAT# 2121.14)	C.A 773 (CAT# 2121.15)
Display	LEDs	LEDs + backlit digital display
Voltage absence testing (VAT)		
Voltage	12V _{AC} ≤ U ≤ 1,000V _{AC} • 12V _{DC} ≤ U ≤ 1,400V _{DC}	
Frequency	DC, 16 _{2/3} to 800Hz	
Impedance	> 500kΩ	
Max. peak current	3.5mA 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. 30mA at 230V)	
Phase/Neutral identification	Above 50V (45 - 65Hz) Above 150V (16 _{2/3} - 45Hz)	
Continuity & Resistance		
Buzzer trigger threshold	100Ω typical (150Ω max.)	
Extended continuity test (resistance)	2kΩ, 60kΩ, 300kΩ	0.5Ω to 2,999kΩ
Test current / Open-circuit voltage	≤ 1mA / ≤ 3.3V	
Phase rotation	2-wire method with microprocessor	
Ph/Ph voltage	50V ≤ U ≤ 1,000V _{AC} (45 - 400Hz)	
Buzzer	Intermittent beep for Voltage Detection • Continuous beep for continuity	
Standards and electrical safety	IEC 61243-3:2009, EN 61243-3:2010, IEC 61010 1,000V CAT IV	
Enclosure protection	IP65	
Climatic conditions	-22°F to +140°F (Class S)	5°F to +113°F (Class N)
Battery life	> 5,000 x 10s measurements	> 2,500 x 10s measurements
Dimensions / weight	~ 9 x 2.4 x 1.5" (228 x 60 x 39mm) without test probes / ~ 0.8lbs (350g)	

References to Order

C.A 771 DIT CAT IV 1kV #2121.14
 C.A 773 DIT CAT IV 1kV #2121.15

State at Delivery

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

For Information and Ordering

AEMC

15 Faraday Dr.
 Dover, NH 03820
 Tel: (603) 749-6434
 Fax: (603) 742-2346
 sales@aemc.com
 www.aemc.com

