Accessible version (HTML): amperis.com/en/accesible/catalogo-cat-avanzada-en/

CAT

Circuit breaker testing

CAT35, CAT36, CAT65, CAT66

Up to 12 contacts, DRM and 500 A built in

CAT Advanced

Circuit breaker analyzers with micro-ohmmeter

amperis

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Comprehensive HV breaker diagnosis: timing, motion, coils and resistance.

Product overview

Top panel: main contacts, auxiliaries, coils, transducers and micro-ohmmeter

Acquisition at full scale

The advanced series simultaneously times up to 12 main contacts (4 breaks per phase) and 6 auxiliaries, records 6 coil currents up to ±35 A, measures with 6 analog channels from ±1 to ±300 V and follows the motion with 3 analog or digital transducer channels, sampling at 40 kHz with 0.025 ms resolution.

A micro-ohmmeter inside the analyzer

Except for the CAT64A and CAT124A, every model integrates a 200 or 500 A micro-ohmmeter of pure DC with a regulated ramp: static resistance by Kelvin's method and dynamic resistance (DRM) during the operation, with an optional high-precision module.

Main features

- Eight models: CAT35, CAT36, CAT65, CAT66, CAT125, CAT126, CAT64A and CAT124A.
- Time accuracy of ±0.01% of reading ±0.1 ms.
- First trip test with the installation in service.
- Anti-pumping relay test.
- Resistance of 3 coils at once (1 – 999 Ω).
- Optional Both Sides Grounded (BSG) measurement.
- Results via USB or PC in numerical and graphical form.

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Applications and software

High-voltage circuit breaker: the series' test object

Applications

- Complete diagnosis of HV and MV breakers in substations.
- Static and dynamic resistance (DRM) of the arcing contact.
- Travel, rebound and velocity curves with 3 transducers.
- First trip after long idle periods.
- Minimum operating voltage with the associated coil power source.

PC software for control and analysis

The included PC software controls the instrument, overlays graphs of timing, currents, motion and resistance, assesses each operation against the test plans in its database and builds customisable reports with the asset data.

From timing to contact wear

The resistance-versus-travel curve obtained in DRM reveals the arcing contact's length and condition without opening the chamber; with 500 A currents the voltage drop reading is reliable even on contacts in good shape.

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CAT ADVANCED — MEASUREMENT DATA

Time resolution	0.025 ms (1 s, 40 kHz); 0.1 ms (2 s); 1 ms (20 s); 10 ms (200 s)
Time accuracy	±0.01% of reading ±0.1 ms
Main contacts	Closed ≤ 10 Ω; pre-insertion 10 Ω – 5 kΩ; open ≥ 5 kΩ; 20 V DC / 100 mA
Coil current	6 channels, ±35 A AC/DC; 25 mA resolution; ±(0.5% + 0.1% FS)
Analog channels	6, ±1 / ±5 / ±60 / ±300 V ranges; down to ±(0.1% + 0.05% FS)
Coil resistance	3 coils at once; 1 – 999 Ω; typical ±(0.5% + 0.5% FS)
Built-in micro-ohmmeter	Up to 500 A pure DC with regulated ramp; static and DRM
Transducers	3 digital (2500 ppr) and 3 analog (16-bit); 5 V DC supply

Auxiliaries: 6 dry or wet channels, up to 300 V DC / 250 V AC.
Specifications valid at +25 °C with standard accessories.

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CAT ADVANCED — TECHNICAL SPECIFICATIONS

	CAT35	CAT36	CAT65	CAT66	CAT125	CAT126	CAT64A	CAT124A
Main contacts	3	3	6	6	12	12	6	12
Breaks per phase	1	1	2	2	4	4	2	4
Built-in micro-ohmmeter	200 A	500 A	200 A	500 A	200 A	500 A	—	—
High-precision module	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	—	—

Common: 6 auxiliary inputs, 6 analog channels, 6 coil control outputs and 3 transducer channels; dimensions 480 × 197 × 395 mm; weight 10.7 to 13.2 kg depending on model and options; supply 90 – 264 V AC, 50/60 Hz; maximum input power 100 VA (without micro-ohmmeter), 1500 VA (200 A) or 3900 VA (500 A); USB and USB stick.
Standards: safety EN 61010-1; EMC EN 61326-1; installation category II; pollution degree 2. Specifications valid at +25 °C.

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