

# ACTAS



## ACTAS C | CF | CCF ■

### Stationary switchgear Test Systems

High-precision stationary test systems for carrying out fully automatic final factory tests, type and function tests of all types of switchgear devices, including the drive units of switch bays. All electrical and mechanical parameters needed for the assessment of the switching performance are recorded and evaluated in real time without either the contact chambers or the drive unit having to be opened.

- Extremely flexible and versatile
- Connection of inputs and outputs via industrial plug connectors
- 50 kHz sample rate with a 200 kHz oversampling per measurement channel
- Calibration data storage on each measurement card
- Easy exchange of measurement cards
- Fully automatic testing
- DAC outputs or Ethernet ports for controlling additional devices
- Testing via the ACTAS 2.60 testing software including all modules and functions

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### Complete solutions for switchgear manufacturers or test laboratories

#### Circuit breaker testing with ACTAS C

ACTAS C makes it possible to test circuit breakers or individual drives such as disconnectors or earthing switches. Automatically controllable, integrated voltage and current sources offer a high level of testing options. The operating states of the test system are indicated on an LED indicator panel. All the electrical and mechanical parameters needed for the assessment of switching performance are recorded and evaluated in real time.

#### Drive test with ACTAS CF

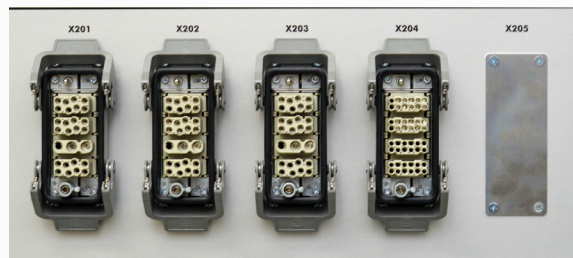
ACTAS CF allows sequential, fully automatic function tests of up to 8 drive units of a switch bay. The operating states of the test system and all the drive units are indicated on an LED indicator panel. The test system can reproduce drive control with the aid of a logic module. This makes it possible to test any drive even if there is no control unit.

#### Circuit breaker and drive test with ACTAS CCF

ACTAS CCF combines the test functions of ACTAS C and ACTAS CF. Complete tests of an entire switchgear bay with a circuit breaker and drives can be carried out in a single test procedure under real conditions.

#### Flexible installation in a system cabinet

The test systems are mounted in a 19" standard cabinet. All interfaces are connected on the back panel of the system with multi-pole industrial plug connectors.



### Internal and external sources

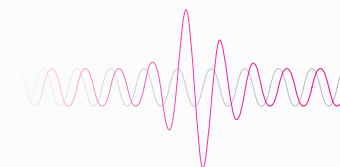
The internal power supply for relay control and the power supply to analog and digital sensors connected externally are provided by built-in power supply units. External or integrated sources, which are controlled by the test system, can be provided as an optional extra for powering external actuators such as spring-charging motors, release coils or heating systems.

### Safety concept according to international requirements

All external voltages can be switched off by means of an EMERGENCY STOP button. A safety switchgear device is integrated for the interruption of the safety electric circuit. It fulfills requirements for international use through certification to BG, UL, cUL, CCC and Gost. There is also an additional safety binary input on the connection panel which can be used to monitor an external door contact, for example.

### Plug & Play technology

All system and calibration data are saved directly on each individual card. This makes it easy to exchange the cards, even between different test systems. Measurement cards can be kept in stock as spare parts and exchanged „plug and play“ which guarantees high availability.



## Measurement inputs and control outputs

- Determination of operating times for various switching sequences on up to 18 PIR and main contacts
- Status indication for up to 96 auxiliary contacts with adjustable activation range
- Up to 12 analog and 9 digital sensor inputs for pressure, travel and temperature measurement.

## Coil and motor current

- Coil current measurement and control on up to 3 closing and 3 opening coils with 100 A peak with different measuring ranges
- Coil circuit switching of additional 3 opening and 2 closing coil circuits
- Direct motor current measurement at 3 measurement inputs with 100 A peak with different measuring ranges

## Contact resistance determination

- Determination of the static and dynamic contact resistance in combination with various ohm meters of the PROMET product line

## Undervoltage release, minimum operating voltage and tests with min., nom. and max. operating voltage

- Fully automated test procedures with ACTAS C via digital and analog control of voltage sources
- The results are reproducible under always identical conditions
- Up to 3 voltage measurement channels with 300 VAC and 3 additional voltage measurement channels with 500 VAC

## Operation and evaluation

The ACTAS C systems are operated using the reliable ACTAS 2.60 test software, and the user benefits from over 30 years of experience in the field of switchgear testing. As existing test templates and procedures can be retained, the test systems can be easily integrated into existing structures. All modules of the testing software are included in the scope of delivery.

## Advantages

- Functions for importing and exporting data, such as .csv or .xml
- Test object import via barcode, RFID or .xml
- Export of any data structures to Access, MySQL, Oracle etc., manually or automatically
- Report editor templates can still be used
- Test statistics can be easily created
- Automatic test procedures with repetitive operations
- Creation and use of reference curves
- Generation of virtual measurement channels
- Automatic monitoring of relay signals
- Conversation tables from rotary to linear movements
- Long-term measurements

## Technical data

	C160	C320	CF80	CCF160	CCF320
Closing coils	3	3	1	3	3
Opening coils	3	3	1	3	3
Relay control outputs	8	14	–	8 + 1 per drive	14 + 1 per drive
Analog control outputs 0...10 VDC	4	6	2	4	6
Coil current	6 x (I/O)	6 x (I/O)	2 x (I/O)	6 x (I/O)	6 x (I/O)
Coil/station voltage	1	3	1	1	3
Motor current via shunt	1	3	1	1	3
Motor voltage	1	3	1	1	3
Sensor (dig./inc.)	6	9	1 per drive	6 + 1 per drive	9 + 1 per drive
Sensor (+/-10 V)	6	9	–	6	9
Sensor (0...20 mA)	2	3	–	2	3
Main and PIR contacts	3 x 4	3 x 6	3 x 2	3 x 4	3 x 6
Auxiliary switch contacts	16 + 36 (10 kHz)	24 + 72 (10 kHz)	–	16 + 36 (10 kHz) 14 per drive (10 kHz)	24 + 72 (10 kHz) 14 per drive (10 kHz)
Reference voltage for external sensors	2 x 10 VDC / 200 mA	3 x 10 VDC / 200 mA	–	2 x 10 VDC / 200 mA	3 x 10 VDC / 200 mA

Technical specifications subject to change without prior notice | 202501 | © KoCoS Messtechnik AG

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