

# Use in circuit breaker testing

Using the ACTAS testing software, EPOS CV can easily be integrated in circuit breaker tests. This makes it simple to automate tests and carry out a comprehensive analysis of the test results.

#### Retrofit for ACTAS C systems

Only a few adjustments are required in order to upgrade an existing ACTAS C system by replacing the original sources with EPOS CV.





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#### Technical data

	EPOS CV 821	EPOS CV 831	EPOS CV 753	
	Single-phase		Three-phase	
Source				
Voltage	1 x up to 270 VAC		3 x up to 520 VAC	
	1 x up to 300 VDC		1 x up to 300 VDC	
Step value	1 V			
Accuracy	± 1 %			
Current	1 x 30 AAC	1 x 40 AAC	3 x 25 AAC	
	1 x 20 ADC	1 x 30 ADC	1 x 32 ADC	
Transformer specifications	8,100 VA	11,500 VA	22,500 VA	
Frequency	DC, 50 or 60 Hz 1)			
Rectification	Two-pulse bridge circuit <sup>2)</sup>		Six-pulse bridge circuit <sup>3)</sup>	
Protection	Overcurrent, short-circuit, overload, limitation of switch-on current			
Regulation	Motor-controlled			
Measurement				
Voltage	up to 540 VAC			
Accuracy	< 0.2 %			
Current	up to 110 AAC			
Accuracy	< 0.1 %			
Sampling rates	500 Hz up to 10 kHz			
Complete system				
Power supply	230 VAC		3 x 400 VAC	
	50/60 Hz			
	Discrete connections for supplying power to the control electronics and the power module separately			
Connections	Industrial plug connectors			
Housing		19"		
	4 U	8 U	18 U	
Screen	High-resolution 3.5" screen			
Operation	Jog wheel and 6 function keys			
Display elements	6 status LEDs, status signals screen, illuminated ring on the jog wheel			
Interfaces	RJ 45 (Ethernet), USB-B			

<sup>1)</sup> Depending on the mains connection  $\bullet$  2) With smoothing capacitor  $\bullet$  3) Without smoothing capacitor

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## **EPOS** CV 821/831/753

#### Single and three-phase voltage sources

Automatically regulated AC/DC voltage sources for single or three-phase voltages, with high power and fast settling time.

- For powering resistive, inductive or capacitive loads
- For testing components, motors and devices
- Wide power range and precise control response
- Reliable operation thanks to high-performance components
- Infinitely adjustable output voltage under load
- Integrated control panel for stand-alone operation
- Provides high starting currents and rated currents
- Short-circuit proof and protected against overload conditions
- High operational reliability and availability
- Ethernet interface for external control in test stands and for connection with ACTAS C switchgear test systems



## **EPOS** CV 821/831/753

Automatically regulated voltage sources are used in many different test environments to supply power to components, motors and devices. The sources can be used to reproduce system conditions allowing the components to be tested to their limits under realistic conditions.

EPOS CV voltage sources are designed to output single or three-phase AC/DC voltages especially for high power values. The voltage sources provide excellent quality and sophisticated, practical functions and are ideal for use in laboratory or manufacturing environments.

#### Infinitely adjustable under load

Thanks to the use of motor-operated variable toroidal transformers, the output voltage of the EPOS CV voltage sources is infinitely variable, even under load.

### Fast settling times and precise control response

EPOS CV voltage sources feature very fast settling times and a very precise control response. The configured voltage is always kept constant when there are fluctuations in the power input voltage or in the load.

#### Provides high starting currents and rated currents

EPOS CV voltage sources provide both high output voltage and high output current. Especially when operating motors, high starting currents, which can be several times as high as the operating currents, are required when the full operating voltage is applied. The voltage sources are able to deliver these current peaks.

# Reliable operation thanks to high-performance components

In order to withstand high stresses over long time periods, EPOS CV voltage sources are designed to be sturdy and safe. A powerful motor drive is responsible for fast, precise regulation and generously dimensioned switching elements ensure that output can be switched on and off safely.

## High operational reliability and availability

Extremely effective and reliable short-circuit and overload protection are key to the high operational reliability of the EPOS sources. Feedback measurements of current and voltage as well as temperature measurements and their real-time evaluation ensure that the EPOS sources are always reliably protected even under extreme stresses.

### Integrated control panel for stand-alone operation

EPOS CV sources feature an integrated control panel with a 3.5" screen, jog wheel, function keys and status displays for operating and controlling the device. Settings are displayed clearly on the screen, parameters can be edited directly. The output values are shown on the screen, while status LEDs and an illuminated ring integrated in the jog wheel indicate operating status. The output parameters can include a limit value and a step value as required.

#### Ethernet interface for external control

An Ethernet interface is provided for operating the sources in test stands and for connection with ACTAS C switch-gear test systems. The recorded curve characteristics can be transferred directly to the ACTAS switchgear test system by the internal measurement of voltage and current in the EPOS CV voltage sources with a sampling frequency of up to 10 kHz.















