

# CIRCUIT BREAKER ANALYZERS

**PME-500-TR**

**PME-600-T**

**PME-700-TR**





## CIRCUIT BREAKER ANALYSIS

The PME family of circuit breaker analyzers combine portability, ease of operation and remarkable accuracy for the task of evaluating the condition and performance of medium and high voltage three phase circuit breakers of any kind.

These small, lightweight yet sturdy instruments will record the transition of the circuit breaker's poles between OPEN and CLOSE positions with a resolution of 0.1 milliseconds to reveal graphically and numerically any unbalance or misalignment in the three phases.

Another two auxiliary inputs allow the recording of the activity by other moving contacts during the same analysis to provide additional information about the synchronization of important elements in or outside the circuit breaker itself.

The recording process can be triggered by the user or by the change of status of a voltage or dry contact signal.

The duration of OPEN and CLOSE commands can be set to accurately match that of the circuit breaker's control device, in order to test the machine's driving mechanism against requirements.



A comprehensive range of options will let you choose the combination that best accommodates your technical needs as well as your budget.

## Upgradeable

The three models composing the PME family of circuit breaker analyzers include all the essential elements, a complete set of connections, accessories and a few distinctive characteristics, and all of them feature the PME BUS - our contribution to protect your investment with the possibility to upgrade your device's functionality at any time with existing and future plug & play options.

	PME-500-TR	PME-600-T	PME-700-TR
RECHARGEABLE BATTERY	✓		✓
RESISTANCE MEASUREMENT	✓		✓
ON BOARD TOUCH DISPLAY	✓		
PRINTER	✓		
WiFi, LAN, USB		✓	✓
PME BUS	✓	✓	✓
TRANSDUCER INPUT	OPTION	✓	✓



## PME-500-TR: THE REFERENCE

Designed by experts in switchgear commissioning and maintenance, this best seller set a new standard in portability and efficiency that continues to rule the market nowadays. With onboard touch control, full battery support, contact resistance measurement, results storage & printing and ready for travel transducers, you won't need anything else.

## PME-700-TR: NO COMPROMISE

Featuring the latest in user interface trends, you can drive it from your personal portable device via WiFi or wired Ethernet. No need of data transfer: your results will be ready for reporting at any time.

## PME-600-T: FAST & EASY

Link your personal device wirelessly, connect the circuit breaker, launch the test and collect your data. This easy. And in budget.







## OPTIONAL ACCESSORIES

### PME-TCE TRANSDUCER INTERFACE



Allows the connection of up to 3 digital and 1 analog position transducers to the PME BUS. Plug & play operation.

### PME-ATK TRAVEL ANALYSIS ENTRY KIT



One rotary transducer, one articulated arm with magnetic lock and a full set of adapters for diverse cam diameters, all in a transport bag with room to place your PME-TCE inside.

### PME-ATA ROTARY ANALYSIS SET



One rotary transducer, articulated arm with magnetic lock and cam diameter adapter.

### PME-LT50A LINEAR TRANSDUCER



Wired and tested for linear displacement analysis.

### CBL-11-PME-XXX LONG CONNECTIONS



11-meter for large, outdoor HV circuit breakers. Main contact, Coil control, Auxiliary, and Contact Resistance connections also available individually. PME-RESC clips recommended.

### PME-RESC HIGH PRESSURE CLIPS



High pressure crocodile clips with stronger weight support for larger connections. Combine timing and contact resistance connections for faster setup.

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## TECHNICAL CHARACTERISTICS

### MAIN CONTACT CONNECTIONS

Number:	3
Open circuit voltage:	10 Vdc
Test current:	100 mA max.
Status thresholds	CLOSED: $R < 30 \Omega$ PRE-INSERTION: $30 \Omega < R < 10 \text{ k}\Omega$ OPEN: $R > 10 \text{ k}\Omega$

### BINARY INPUT

Connections:	2, fully isolated
Dry contact mode	Open circuit voltage: 5 Vdc Test current: 20 mA max
Voltage detection mode	Allowed voltage range: $\pm 1.5 \div \pm 375 \text{ Vpk}$ (265 V cc/ca) Lower threshold: $\pm 1.5 \text{ V}$ Upper threshold: $\pm 15 \text{ V}$

### TEST CONTROL

Programmable sequences:	0, C, O-C, C-0, O-C-0, C-0-C
Recording length:	2 seconds
Coil pulse duration (O or C):	$0 \div 2000$ milliseconds
Pause interval duration:	$0 \div 2000$ milliseconds
Deferred recording delay:	$0 \div 18$ seconds
Recording start options	Coil command / Binary signal / Main contact status change / Programmable delay

### TEST RESULTS

Graphics zoom	100, 200, 400, 800 or 2000 ms
Time resolution:	0.1 millisecond
Time accuracy:	0.05% of reading $\pm 0.1$ ms
Coil current measurement:	$0 \div \pm 50.0$ Apk. Accuracy: $1\% \pm 125$ mA
Coil current graphics:	1-ms sampling
Contact resistance*	Range: $100 \mu\Omega \div 1 \Omega$ Resolution: $0.1 \mu\Omega$ min. Accuracy: 0.1% of reading $\pm 1$ digit Test current: 10 Acc max.

### USER INTERFACE

Onboard panel*	Multi-Language, touch sensitive backlit LCD
Printer*	Thermal, standard 110 mm (4.3") roll width
External	Application program on a connected device
Networking*	Ethernet(1 x RJ45) + WiFi (access point or infrastructure)
Comm ports	USB (A & B)*, RS-232*, PME BUS

### STANDARD PACKAGE

Multi-pin 5-meter test connections (coil control, main contacts, binary and contact resistance*) and complete set of 4-mm crocodile clips.
Overvoltage suppression diodes (2-pack)
Set of spare fuses
2 x thermal paper rolls*
Power cord
Lightweight bag for instrument, cables and accessories
RS-232*, Ethernet, and USB communications cables
Test and reporting software
Printed user's manual and visual guide to connections in English

### GENERAL

Standards:	IEC-61010, EMC-50081-2, EN-50082-2
Power supply:	$90 \div 264$ Vca. $50 \div 60$ Hz
Rechargeable battery*:	Internal, 12Vdc Ni-MH
Instrument size:	340 x 300 x 150 mm (13.3 x 11.8 x 5.9 inch)
Instrument weight	PME-500-TR: 8 kg (17.6 lb) / PME-600-T: 5.6 kg (12.3 lb) / PME-700-TR: 7 kg (15.4 kg)
Temperature:	Working: $0 \div 55$ °C. Storage: $-40 \div 70$ °C
Relative humidity:	95% max (non-condensing)
(*) in specific models	

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