

## Vacuum Circuit Breaker Analyzer



**VCBA 01**

- Comprehensive vacuum CB HV test and contact timing test
- 0-80 kV DC in 1 kV steps with 1.5% accuracy
- Settable leakage current 50-300 micro-A in 50 micro-A steps
- Accurate trip & close circuit breaker main contact timing test.
- Touch screen LCD screen for improved productivity
- Built-in 3" thermal printer
- Enhanced safety features: audible and visual high voltage presence indicators, user-controlled safety switch

### Introduction:

The Vacuum Circuit Breaker Analyzer VCBA 01 is Power Diagnostic Instrument Company's state-of-the-art, field portable, light weight instrument designed for the comprehensive diagnostic testing of vacuum circuit breakers. The VCBA 01 can perform high voltage DC vacuum integrity tests on the circuit breaker main contacts.

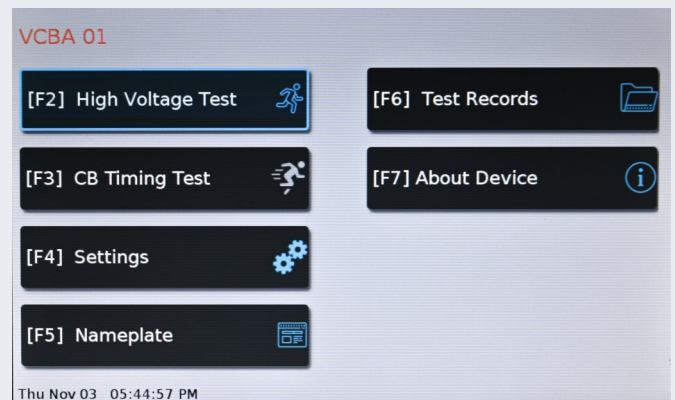
The VCBA 01 applies a test voltage to the vacuum bottle arcing chamber for the time specified in the test settings. While the test voltage is applied to the vacuum circuit breaker arcing chamber, the instrument monitors the leakage current to the ground. If the leakage current to the ground remains lower than the set limit, the instrument registers the test as successful. If the leakage current exceeds the set limit, the instrument shuts down and removes the test voltage from the arcing chamber and registers the test as a failed test.

### Test Voltages and Safety Features

A high voltage DC test can be set between 10 kV to 80 kV in 1 kV steps. The VCBA 01 has a built-in safety switch as well as visual and audible indicators to signal the presence of high voltage for enhanced personnel safety. The unit also features a safety thumb switch with a 10 ft cable so that the user can maintain a safe distance from the instrument. If the trigger of the safety switch is released in the middle of the test for any reason, the instrument will remove the high voltage and stop the test.

### User Interface

The unit's back-lit color LCD touchscreen (800 x 480 pixels) is viewable in bright sunlight and low-light and provides an intuitive menu structure where running a test is just few taps away. The full-sized industrial keyboard (supplied in the cable bag) makes data entry quite easy for information such as nameplate and setting information.



### Built-in Thermal Printer

The VCBA 01 features a built-in 3" thermal printer for quick printout of results in the field.

### Data Storage and Analysis

The VCBA 01 can store up to 100 test results internally. Test results can be transferred to a PC via the unit's USB Flash drive interface (Flash drive not included) or directly via the USB 2.0 PC interface. The provided PC software can be used for analysis and report generation.

## Technical Specifications: VCBA 01

<b>Input Power</b>	90 – 240 Vac, 50/60 Hz
<b>HV Test</b>	
Voltage Range	10 kV – 80 kV DC in 1 kV steps
Accuracy	1.50%
Output Voltage Ripple	3% max
Voltage Discharge Time	3 seconds
Leakage Current Setting	50 to 300 micro-Amps, 50 micro-Amp steps
<b>CB test (Optional)</b>	
Dry Contact Inputs	3 channels of CB main contacts
Trigger Input Voltage Open/Close	30 - 300 V, DC, or peak AC
Breaker Operations	Open, Close, Open-Close, Close-Open
Timing Resolution	±0.1 millisecond accuracy: 0.05% of reading ±1 ms
<b>User Interface</b>	
Printer	2" Thermal printer
Display & keyboard	Color touch-screen LCD (800 x 480 pixels) & "QWERTY"-style keyboard
Software	Transfer test records to PC via USB 2.0 and report generation
Safety Switch	Hand-operated safety switch with 10 ft cable
High Voltage Presence Indicators	Buzzer and LED high voltage presence indicators
<b>DATA STORAGE AND ANALYSIS</b>	
Internal Test Record Storage	Up to 100 timing and high voltage test records
External Test Record Storage	USB Flash drive interface to copy test records and firmware updates
<b>Operating/Storage Temperature</b>	
Temperature	Operating: -10°C to +50°C (+15°F to +122°F) Storage: -30°C to +70°C (-22°F to +158°F)
Humidity	90% RH @ +40°C (+104°F)
<b>Physical Specifications</b>	
Dimensions	15"W x 10" H x 14" D (37 cm x 25 cm x 35 cm)
Weight	22 lbs. (10.0 Kg)
Transport/Carry Case	17"W x 10" H x 17" D (43 cm x 25 cm x 43 cm) ABS field durable case
<b>Warranty</b>	2 years on parts and labor