

VBT-75 S2

vacuum bottle tester



Vanguard Instruments
A DOBLE COMPANY





VBT-75 S2

vacuum bottle tester

outstanding features

- Automatic testing
- 10 kV – 75 kV DC output in 5 kV steps
- Selectable test time duration from 5 seconds to 2 minutes
- Digital voltage and current display
- Failure indicator LED
- Very lightweight (10 lbs. / 4.53 Kg)

ordering information

Part No.	Description
9134-UC	VBT-75 S2 and cables
9134-SC	VBT-75 S2 shipping case

The VBT-75 S2 is Vanguard's second generation microprocessor-based, portable, 75kV dc vacuum bottle tester. This lightweight, portable tester is designed for testing circuit-breaker vacuum bottles in the field and at the shop.

Test voltages can be selected from 10 kV dc to 75 kV dc in 5 kV steps. The high-voltage test time can be set from 5 seconds to 2 minutes. The test voltage is raised to the selected voltage and held for the test time duration. After the test time duration has elapsed and the leakage current did not pass the preset value of 100 μ A, 200 μ A, or 300 μ A, the test voltage is returned to zero and a "Pass" message is displayed. If a flash-over condition occurs, such as bottle failure, the test voltage is immediately turned off, a "Failure" message is displayed on the LCD screen, and the "TEST FAIL" LED light on the unit is also illuminated.

The presence of high voltage is indicated by an audible tone and an illuminated "HIGH VOLTAGE" LED light. For additional operator safety, an "ARM" switch must be held down during testing.

The VBT-75 S2 features a back-lit LCD screen (20 characters by 4 lines) that is viewable in both bright sunlight and low-light levels. A turn-and-press knob is used to control the unit. The VBT-75 S2's firmware can be updated in the field via the unit's built-in USB Flash drive port.

The VBT-75 S2 is furnished with a 10-foot test cable that is terminated with a quick-disconnect test clip. A transportation case is also included.

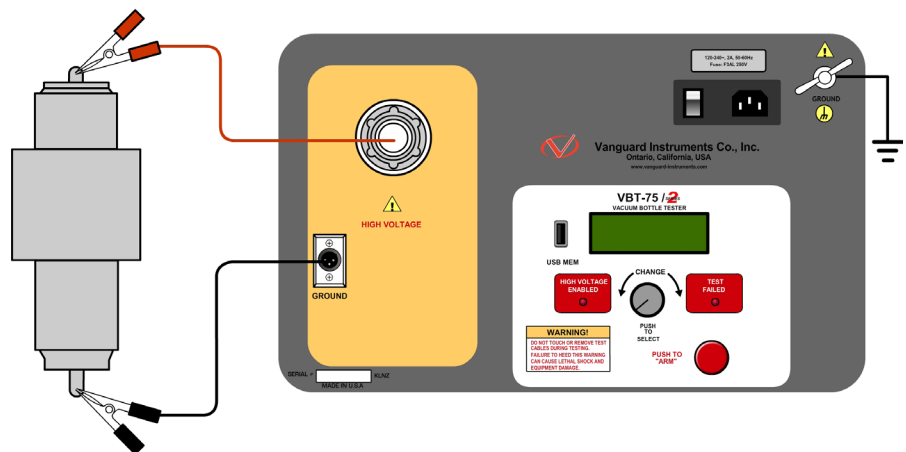
Sample Test Results Screen



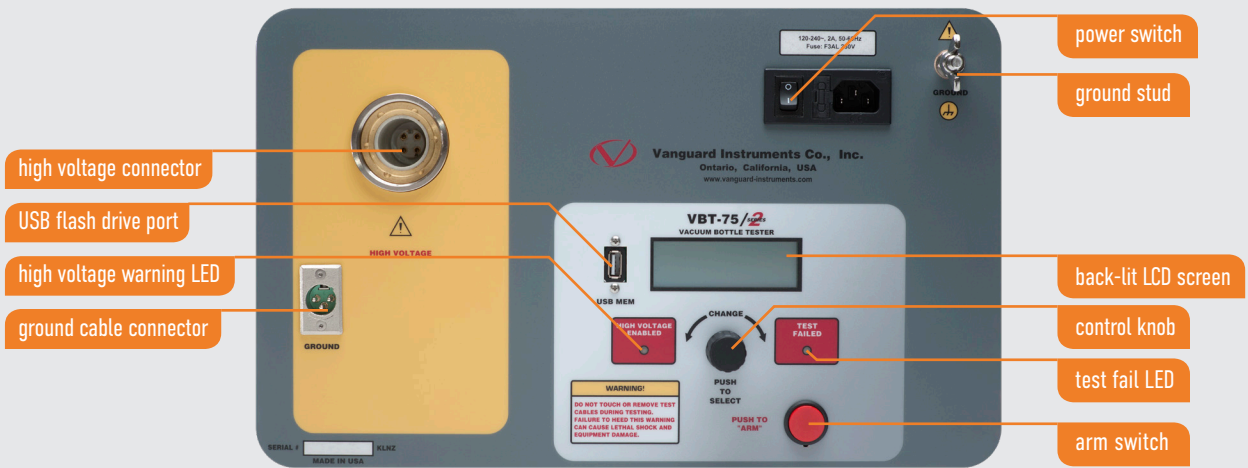
Test Voltage

Leakage Current
















VBT-75 S2 connections



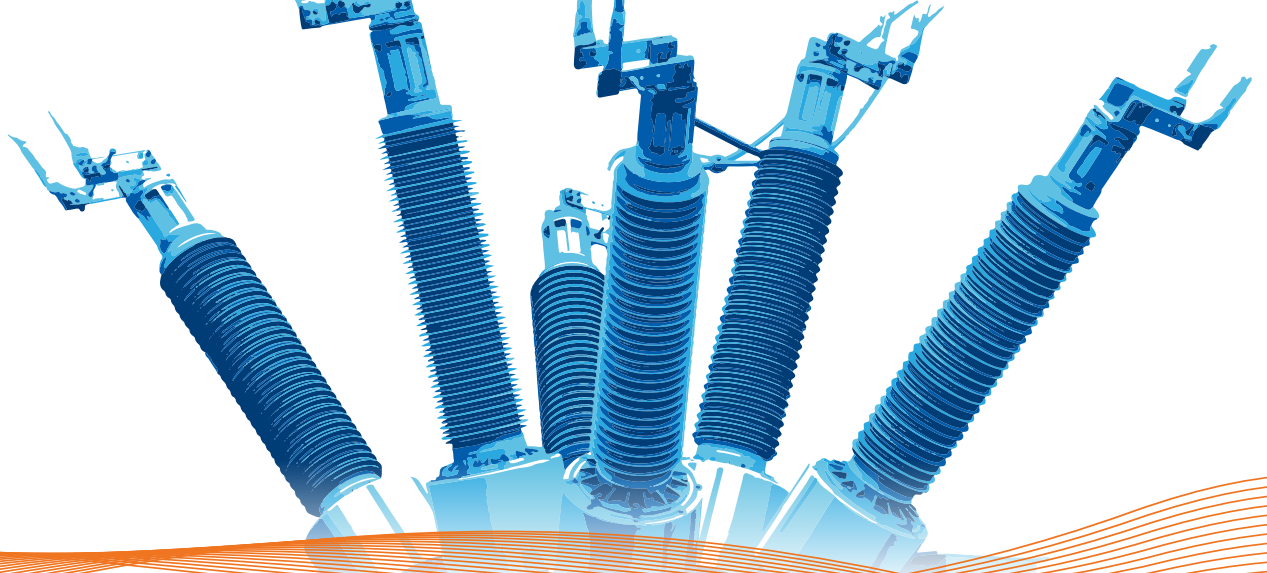
VBT-75 S2 Features



VBT-75 S2 technical specifications

 physical specifications	Dimensions: 17"W x 10½"H x 6½" D (42.7 cm x 26.9 cm x 16.5 cm) Weight: 10 lbs. (4.53 Kg)	 input power	90 – 240 Vac, 2A, 50/60 Hz
 output voltage	10kV – 75 kV dc in 5 kV steps; accuracy: 1.5%	 output ripple voltage	3% max
 discharge time	maximum discharge time for internal high voltage is 3 seconds	 display	back-lit LCD (20 charactersx4 lines); viewable in bright sunlight and low-light levels
 failure indicator	failure indicator LED illuminates when test current exceeds 100 µA, 200 µA, 300 µA (programmable)	 control	single turn-and-press knob
 firmware updates	firmware can be updated in the field via the unit's built-in USB Flash drive interface	 humidity	90% RH @ 40°C (104°F) non-condensing
 temperature	Operating: -10°C to +50°C (+15°F to +122°F) Storage: -30°C to +70°C (-22°F to +158°F)	 altitude	2,000 m (6,562 ft) to full safety specifications
 cables	one 10-foot (3.05m) high-voltage cable, one 10-foot (3.05m) high voltage return cable, one ground cable, one power cord		
 furnished accessories	shipping case	 warranty	one year on parts and labor

NOTE : the above specifications are valid at nominal voltage and ambient temperature of +25°C (+77°F). Specifications are subject to change without notice.



Instruments designed and developed by the hearts and minds of utility electricians around the world.

Founded in 1991 and located in Ontario, California, USA, Vanguard Instruments™ offers a wide range of diagnostic test equipment that accurately and efficiently measures the health of critical substation equipment, such as transformers, circuit breakers, and protective relays.

Our first product was a computerized, extra high voltage (EHV) circuit breaker analyzer, which became the forerunner of an entire line of EHV circuit breaker test equipment. Over the years, our portfolio has grown tremendously to include microcomputer-based precision micro-ohmmeters; single- and three-phase transformer winding turns-ratio testers; transformer winding-resistance meters; mega-ohm resistance meters; and a variety of other application-specific products.

Our instruments are rugged, reliable, accurate, and user friendly. They eliminate tedious and time-consuming operations, while providing fast, complex test-result calculations. Using our equipment helps reduce errors and eliminates the need to memorize long sequences of procedural steps.

In 2017, Vanguard Instruments became a part of Doble Engineering Company, an energy industry leader in hardware, software, and services that diagnose and monitor the health of critical assets.



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