CBPS-300

DC Power Supply

Vanguard Instruments Company

www.vanguard-instruments.com

CBPS-300™

The CBPS-300 is a microprocessor-controlled, variable-voltage, DC power supply. It is designed to replace substation batteries during circuit-breaker testing. The CBPS-300 provides a ripple-free, DC power source to operate utility circuit breakers during contact-timing and other breaker-testing operations.

Replace

The CBPS-300 can operate the Open and Close coils of a circuit-breaker during testing under different selectable operating conditions such as full voltage mode or minimum voltage operations. The CBPS-300 can be substituted as an alternative power supply when substation battery power supplies become unsafe or unavailable when performing maintenance tests on circuit-breakers. Using the CBPS-300, minimum trip voltage tests per ANSI C37.09 or IEC 56 standards can be performed with minimum effort.

The unit's built-in Initiate circuit can be used from the control panel to Open or Close breakers. Also, a separate DC power supply is available to drive the breaker's mechanism charging motor. All of the CBPS-300's supply outputs are current-overload protected. This feature protects the power supply and eliminates the need for conventional fuses or circuit-breaker protection circuitry.

The CBPS-300's controls are organized in a logical array with intuitive control markings. Momentary-operational push-buttons labeled OPEN, CLOSE and MOTOR are used to operate the breaker's respective coils and charging motor. A voltage control knob is used to set the DC output voltage. The unit features a back-lit LCD screen (16 characters by 2 lines) that is viewable in both bright sunlight and low-light levels.

The CBPS-300 also provides an external initiate input trigger that can be used in conjunction with Vanguard's DigiTMR and CT-6500 S2/7000 S2/7500 S2/8000 circuit-breaker timers.

SPECIFICATIONS

TYPE	Variable voltage DC power supply
PHYSICAL SPECIFICATIONS	16.8"W x 12.6"H x 12"D (42.6 cm x 32.0 cm x 26.9 cm); Weight: less than 40 lbs (18.1 kg)
INPUT POWER	120 or 240 Vac (factory pre-set), 50/60Hz
DISPLAY	Back-lit LCD Screen (16 characters by 2 lines); viewable in bright sunlight and low-light levels
DC VOLT METER DISPLAY	0 – 300 VDC, ±1V

COIL DC POWER SUPPLY

DC Outputs	Current	Regulation
24 Vdc	10A	Less than 6%
48 Vdc	10A	Less than 3%
120 Vdc	6A	Less than 2%
250 Vdc	3A	Less than 2%

Note: The OPEN & CLOSE load interval is 1 second.

INITIATE CIRCUIT	Built-in Open and Close solid-state initiate circuit.

CHARGING MOTOR DC POWER SUPPLY

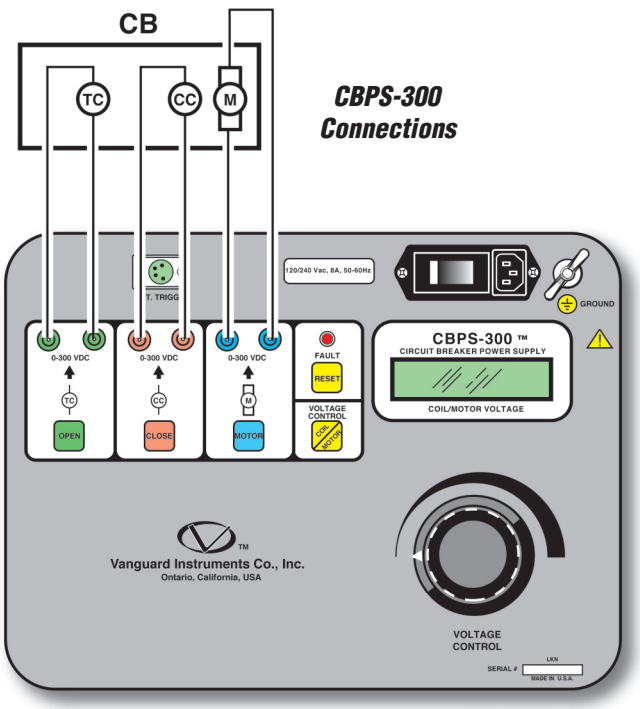
No Load Voltage	Load Current	Load Interval	Full Load Voltage
48 Vdc	12A	60 S	40 Vdc
48 Vdc	18A	20 S	30 Vdc
120 Vdc	12A	60 S	90 Vdc
120 Vdc	18A	20 S	70 Vdc
240 Vdc	6A	60 S	200 Vdc
240 Vdc	9A	20 S	185 Vdc

OUTPUT PROTECTION	All DC outputs are over-current protected
SAFETY	Designed to meet UL 61010A-1 and CAN/CSA C22.2 No. 1010.1-92 standards
ENVIRONMENT	Operating: -10˚ to 50˚ C (15˚F to +122˚ F); Storage: -30˚ C to 70˚ C (-22˚F to +158˚ F)
CABLES	Three 10-foot cable sets, one power cord, one ground cable, one cable carrying duffel bag
OPTIONS	Transportation 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.

Variable Voltage DC Power Supply

Substation Batteries *During Circuit Breaker Testing*



Ordering Information

CBPS-300 DC Power Supply

CBPS-300 Power Supply	Part No. CBPS-300
CBPS-300 Shipping Case	Part No. CBPS-300 Case

Vanguard Instruments Company, Inc.

Vanguard Instruments Co., (VIC), was founded in 1991. Currently, our 28,000 square-foot facility houses Administration, Design & Engineering, and Manufacturing operations. From its inception, VIC's vision was, and is to develop and manufacture innovative test equipment for use in testing substation EHV circuit breakers and other electrical apparatus.

The first VIC product was a computerized circuit-breaker analyzer, which was a resounding success. It became the forerunner of an entire series of circuit-breaker test equipment. Since its beginning, VIC's product line has expanded to include microcomputer-based, precision micro-ohmmeters, single and three-phase transformer winding turns-ratio testers, winding-resistance meters, transformer tap-changing controllers, megaohm resistance meters, and a variety of other electrical utility maintenance support products.

VIC's performance-oriented products are well suited for the utility industry. They are rugged, reliable, accurate, user friendly, and most are computer controlled. Computer control, with innovative programming, provides many automated testing functions. VIC's instruments eliminate tedious and time-consuming operations, while providing fast, complex, test-result calculations. Errors are reduced and the need to memorize long sequences of procedural steps is eliminated. Every VIC instrument is competitively priced and is covered by a liberal warranty.

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