

Option for ISA Circuit breaker Analyzer CBA 1000 and CBA 2000.

- **Work in safe grounded location while testing.**
- **Save circuit breaker testing and analysis time.**
- **Preserve all timing and motion test integrity.**
- **The BSG 1000 allows the test of circuit breakers using Graphite Nozzle.**
- **This method applies for all kinds of circuit breakers.**

## I N T R O D U C T I O N

With the BSG option for both CBA 1000 and CBA 2000, it is possible to perform circuit breaker timing test with both sides grounded. The grounding connection is NOT removed during the test as it has to be with conventional test equipment. Safety is becoming more and more important and several laws and regulations all around the world prescribe that at the work location in high voltage installation, all parts on which are to be worked on shall be earthed ( grounded ) and short circuited.

While testing a Circuit Breaker in high voltage substations the situation may become dangerous due to the high electric potential. This can be caused by a capacitive coupling from a

close conductor, when lightning strikes the line somewhere or when a fault occurs during the test and a high potential reaches the circuit breaker.

To improve personnel safety, reduce hooking time and preserve the test integrity, the use of a BSG 1000 is the best practice while testing circuit breakers.

BSG 1000 is also the best solution for testing those circuit breakers using Graphite Nozzles.

## DESCRIPTION

Two BSG 1000 types are available:

- BSG 1000- type 1 for testing one break per phase;
- BSG 1000- type 2 for testing two breaks per phase.

Each BSG 1000 is made of the following elements:

- Three BSG Remote Heads connected close to the main breaker contacts.

Remote Heads for BSG 1000- type 1:

- Each head has two cables, 2.5 m long, cross section 4 mm<sup>2</sup>, terminated with crocodile clamps.
- One bipolar shielded cable, 3 m long, terminated with crocodile clamps.
- One 8 m long cables terminated with multi-pole connectors for the connection between Remote Heads and BSG Main unit.

BSG 1000 Main Unit



Remote Heads for BSG 1000- type 2:

- . Each head has three cables, 2.5 m long; cross section 4 mm<sup>2</sup>, terminated with crocodile clamps.
- . Two bipolar shielded cables, 3 m long, terminated with crocodile clamps.
- . One 8 m long cables terminated with multi-pole connectors for the connection between Remote Heads and BSG Main unit.

One BSG Main unit connected to the CBA 1000 or CBA 2000 circuit breaker analyzer.

- . Connection of BSG Main Unit to CBA 1000: via a cable 1 m long terminated with multi-pole connectors.

### Specification:

- . Number of main contact inputs (type BSG 1000-1): 3, divided in three groups.
- . Number of main contact inputs (type BSG 1000-2): 6, divided in three groups of two each.
- . Test current injection: 20 A dc nominal.
- . Maximum test duration (each test): 1 s

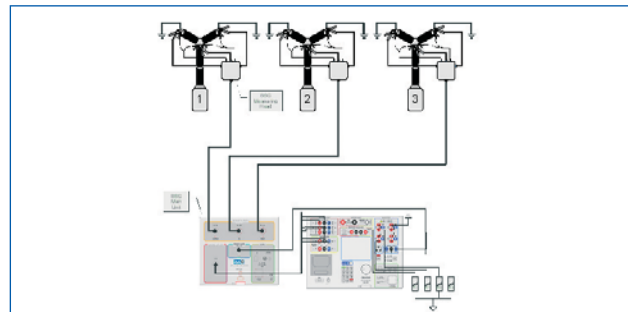


BSG 1000 Remote Heads

- . Graphite nozzles test selection in the CBA 1000 or CBA 2000 menu.

### Ordering information:

CODE	MODULE
PII22166	BSG 1000 One break per phase including: . Three BSG Remote Heads Type1 . One BSG Main unit . One Cables kit
PII21166	BSG 1000 Two breaks per phase including: . Three BSG Remote Heads Type2 . One BSG Main unit . One Cables kit
PII17166	Heavy duty transport case for BSG 1000



BSG 1000 Connection Scheme

### Mains supply:

- . From 85 to 265 V AC; 50-60 Hz,
- . From 100 to 350 V DC,
- . Maximum supply current: 1 A @ 85 V AC.

Weights and dimensions BSG 1000 main unit

- . Case: aluminium case, with hinged removable cover and handles.
- . Weight: 6 kg
- . Dimensions: 325 x 180 x 285 (W x H x D)

### BSG 1000 remote heads (three units)

- . Case: die-cast aluminium case.
- . Weight: 0,7 kg (without cables)
- . Dimensions: 125 x 56 x 125 (W x H x D)



CBA 1000 connected to BSG 1000