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BSG-1000 Safe Circuit Breaker Test with Both Side Grounded.

Option for ISA Circuit breaker Analyzer CBA1000 and CBA2000.

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

Introduction

With the BSG option for both CBA1000 and CBA2000, 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 regulation 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 a lightning



BSG-1000 Main Unit

somewhere strike the line or when a fault occurs during the test and a high potential reach 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 (PII21166);
- BSG-1000- type 2 for testing two breaks per phase (PII31166).

Each BSG-1000 is made of the following elements:

- No 3 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 mm², 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.

Remote Heads for BSG-1000- type 2:

- Each head has three cables, 2.5 m long; cross section 4 mm², 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.

No 1 BSG Main unit connected to the CBA1000 or CBA2000 circuit breaker analyzer.

- Connection of BSG Main Unit to CBA1000: 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
- Graphite nozzles test selection in the CBA1000 or CBA 2000 menu,

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 **BSG1000 main unit**

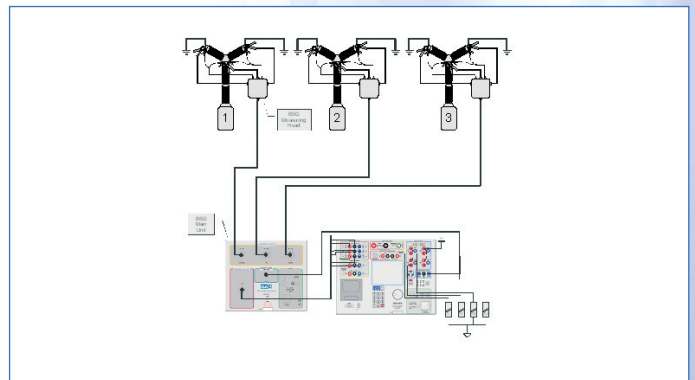
- . Case: aluminium case, with hinged removable cover and handles.
- . Weight: 6 kg
- . Dimensions: 325 x 180 x 285 (W x H x D)

BSG1000 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)



BSG-1000 Remote Heads



BSG-1000 Connection Scheme



CBA1000 connected to BSG-1000