

SGFS

Multiple Chopping Gap



The **multiple chopping gap** is a originally patented **SAMGOR** development and is used to chop lightning impulses (on the front and on the tail) as well as switching impulses up to the highest voltages.

The multiple chopping gap serves simultaneously as a load capacitor for the impulse generator and allows excellent reproducibility of the chopping time and does not distort the wave shape until the chopping point.

With a additional secondary unit the **SGFS** is also usable for some applications as a voltage divider.

Rod gaps and sphere gaps (above 1000 kV) draw a substantial pre-discharge current prior to the voltage break-down, causing a voltage drop. This affects the comparison tests when testing power transformers.

Design

For indoor operation and mobile design. The HV units are made of stacked capacitors with inserted damping resistances. This active part is built in reinforced fiber-glass cylinders.

Our active part technology is derived from our decade long experience. The copper spheres have tungsten sintered inserts to reduce the burn-off. Their distance is

set by a precise drive. The upper semi-sphere is attached to a movable frame which makes it possible to adjust simultaneously all partial spark gaps.

The multiple chopping gaps are equipped with toroid electrodes. The electrodes are made of brushed aluminum. The electrode type is determined by the rated voltage. Fiber-glass struts are required when more than 2400 kV units are used.

The H base frame of welded steel profiles is equipped with four swivel castors.

Technical Data

Rated Voltage: 400kV-4800kV

Capacitance approx.: 500pF-1000pF

Accuracy for divider: $\pm 1\%$

Trigger range

for time-to-chop: 2 - 6 μ S

for time-to-chop scattering: $< \pm 0.1\% \mu$ S

for unchanged gap spacing, negative polarity approx. 20 %

for unchanged gap spacing, positive polarity approx. 10 %

with variable gap setting, both polarities 30 % to 100 %Un

with short circuiting of stages and variable gap 20 kV to Un

General

Relative humidity $< 90\%$ non-condensing

Operating temperature - 5 ... + 45 °C

Storage temperature - 20 ... + 50 °C

Height above sea level < 1000 m

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