

Data Sheet no. 3.32/2

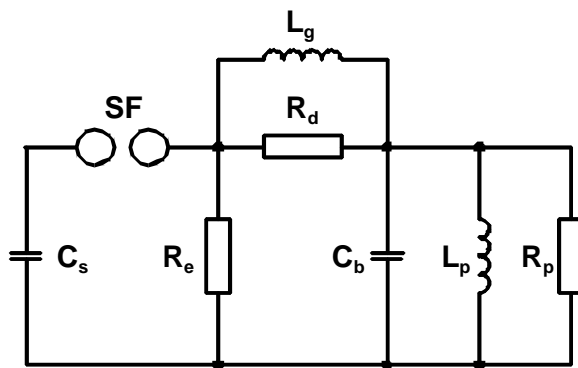
## Glaninger Circuit

### Application:

The Glaninger Extension is an optional extension for impulse voltage test generators using Marx multistage generation. It consists of the inductance ( $L_g$ ), the resistor ( $R_p$ ) and an isolated resistor mounting rack (Fig. 1). The resistor  $R_p$  has to be adapted to the test object inductance.

The inductive load range of an impulse voltage test generator is significantly extended towards lower inductive load values by applying the Glaninger Extension. Thus it allows the impulse voltage test of high rated medium-voltage windings according to IEC Standard 60076 with normal impulse voltage test generators. The standard impulse voltage generation circuit consists of the following components:

- Impulse capacitance  $C_s$
- Tail resistor  $R_e$
- Front resistor  $R_d$
- Load capacitance  $C_b$  (capacitive impulse voltage measuring divider, test object capacitance etc.)



- $C_s$  Impulse capacitance
- $C_b$  Load capacitance (capacitance of measuring divider, control divider of chopping gap, test object, test circuit capacitance to earth)
- $R_e$  Tail resistor
- $R_d$  Front resistor
- $R_p$  Parallel resistor
- $L_g$  Glaninger inductance
- $L_p$  Test object inductance
- SF Switching spark gap

**Fig. 1.** Circuit diagram of glaninger circuit

### Technical data:

Inductance ( $L_g$ )	100 $\mu$ H, 100 kV (2 pieces)
Resistor ( $R_p$ )	25 $\Omega$
Resistor ( $R_p$ )	50 $\Omega$
Resistor ( $R_p$ )	100 $\Omega$
Resistor ( $R_p$ )	200 $\Omega$
Resistor ( $R_p$ )	400 $\Omega$