Data Sheet no. 3.17/1

Short-circuit Safety System Retrofit Package for Impulse Voltage Test Systems Series M and G

For safe operation, the test generator is equipped with two earthing switches and two motor driven safety ropes, which additionally short-circuit all impulse capacitors after switching the generator off.

The short-circuit safety system consists of the following components:

-Two electric motors with winch drum and electronic motor control (included in the main switch cabinet or in a separate case)

-a short-circuit rope consisting of an insulating and a conductive part, connected in the middle

-special turnaround pulley design for the rope (depending on the number of stages of the test system) to greatly reduce friction and thus wear and tear

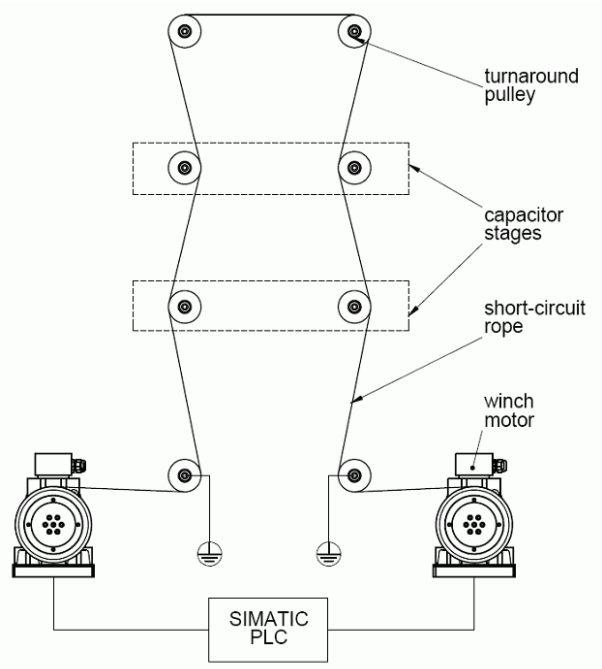

Fig. 1: Schematic sketch of short-circuit safety system

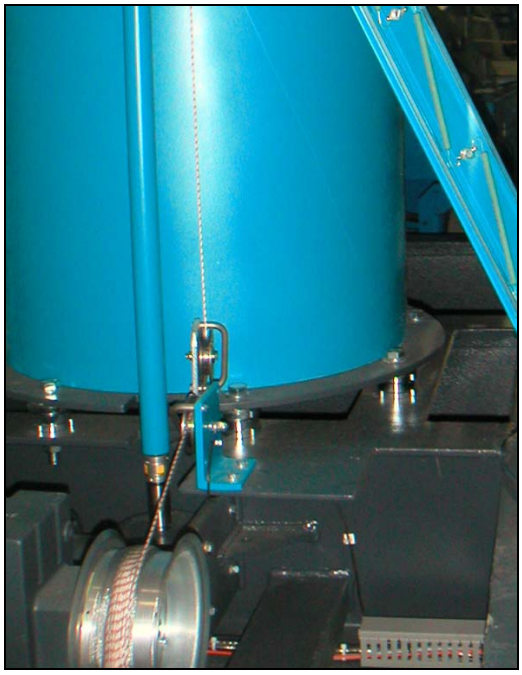

Fig 2: Winch drive installed in the main frame of a series G impulse generator

The motors are controlled independently by a programmable logic controller device of type SIMATIC. It features soft start and stop, constant motor frequency and overload protection. The PLC is built into the main switch cabinet or into a separate case.

The short circuit safety system has been designed for impulse voltage test systems of type M and G with up to 20 capacitor stages.

The scope of the retrofit depends on the type and age of the test system. Therefore a close examination by HIGHVOLT's design department will be required before order confirmation.

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