

Data Sheet 3.21/7

Charging Unit with Control Cabinet for Impulse Voltage Test System, Types GES and GEOS

General description

The charging unit with control cabinet GES/GEOS, together with the operating device BG (Data Sheet 3.53) is the basic requirement to operate an impulse voltage test generator.

The necessary components used for charging and controlling the test generator are combined in one unit. The charging unit contains the high-voltage transformer and rectifier elements. In the control cabinet, amongst others, the thyristor controller and the programmable logic controllers, type SIMATIC, are installed.

This design and especially the application of fiber-optic cables guarantee an interference-free operation of the test generator, even in a noisy environment.

Depending on the series and the charging energy of the test generator (see Data Sheets 3.11; 3.12; 3.13), different types are used (figure 1 and 2).

For the air-insulated version, type GES (figure 1), the polarity change of the charging voltage can be accomplished either manually or, on request, by a motor drive. The versions in an oil vessel, type GEOS (figure 2) are always equipped with a motor drive for the polarity change.

The charging unit with control cabinet GES is equipped with rollers.

The charging unit with control cabinet GEOS .../2 x 100 is normally mounted on the base frame of the impulse generator.

Charging unit with control cabinet for impulse current test system is available on special request only.

Table 1: Technical Parameter

Type	Series of test generator	Stage voltage	Max. charging energy	Charging current	Insulating medium	Length L	Width W	Height H	Weight	Feeding
		kV	kJ	mA		mm	mm	mm	kg	V 50/60Hz
GES 30/100	L	100	67.5	30	Air	1390	945	1510	322	230
GES 30/100 E	L	100	67.5	30	Air	1390	945	1510	332	230
GES 60/100	M	100	120	60	Air	1380	1145	1505	390	400
GES 60/100 E	M	100	120	60	Air	1380	1145	1505	400	400
GES 150/100	M	100	250	150	Air	1380	1145	1505	476	400
GES 150/100 E	M	100	250	150	Air	1380	1145	1505	486	400
GEOS 50/2x100 E	G	2x 100	200	50	Oil	1445	1660	1445	960	400
GEOS 100/2x100 E	G	2x 100	400	100	Oil	1530	1770	1510	1300	400
GEOS 200/2x100 E	G	2x 100	750	200	Oil	1530	1770	1510	1500	400

Type designation

insulated by air:

GES a/b E

a = charging current in mA

b = charging voltage in kV

E = motor-driven polarity change (optionally)

insulated by oil:

GEOS a/b E

a = charging current in mA

b = charging voltage in kV

E = motor-driven polarity change

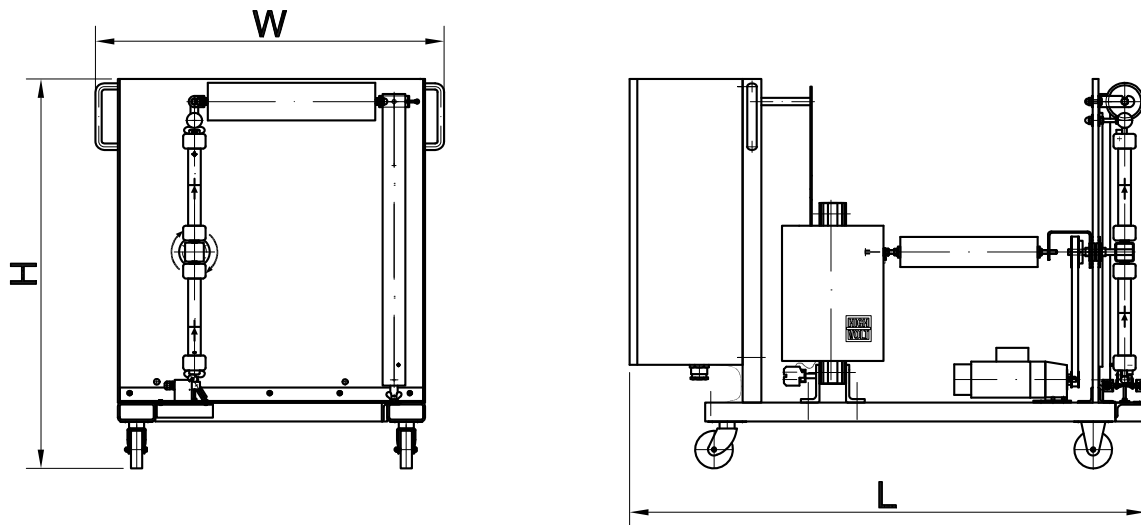


Figure 1: Charging unit with control cabinet, type GES .../100

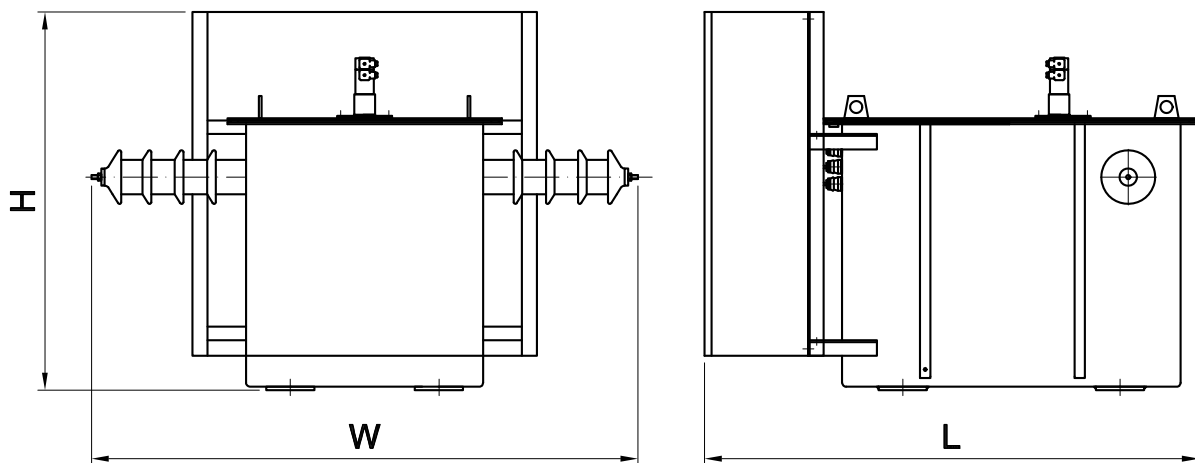


Figure 2: Charging unit with control cabinet, type GEOS .../2x100