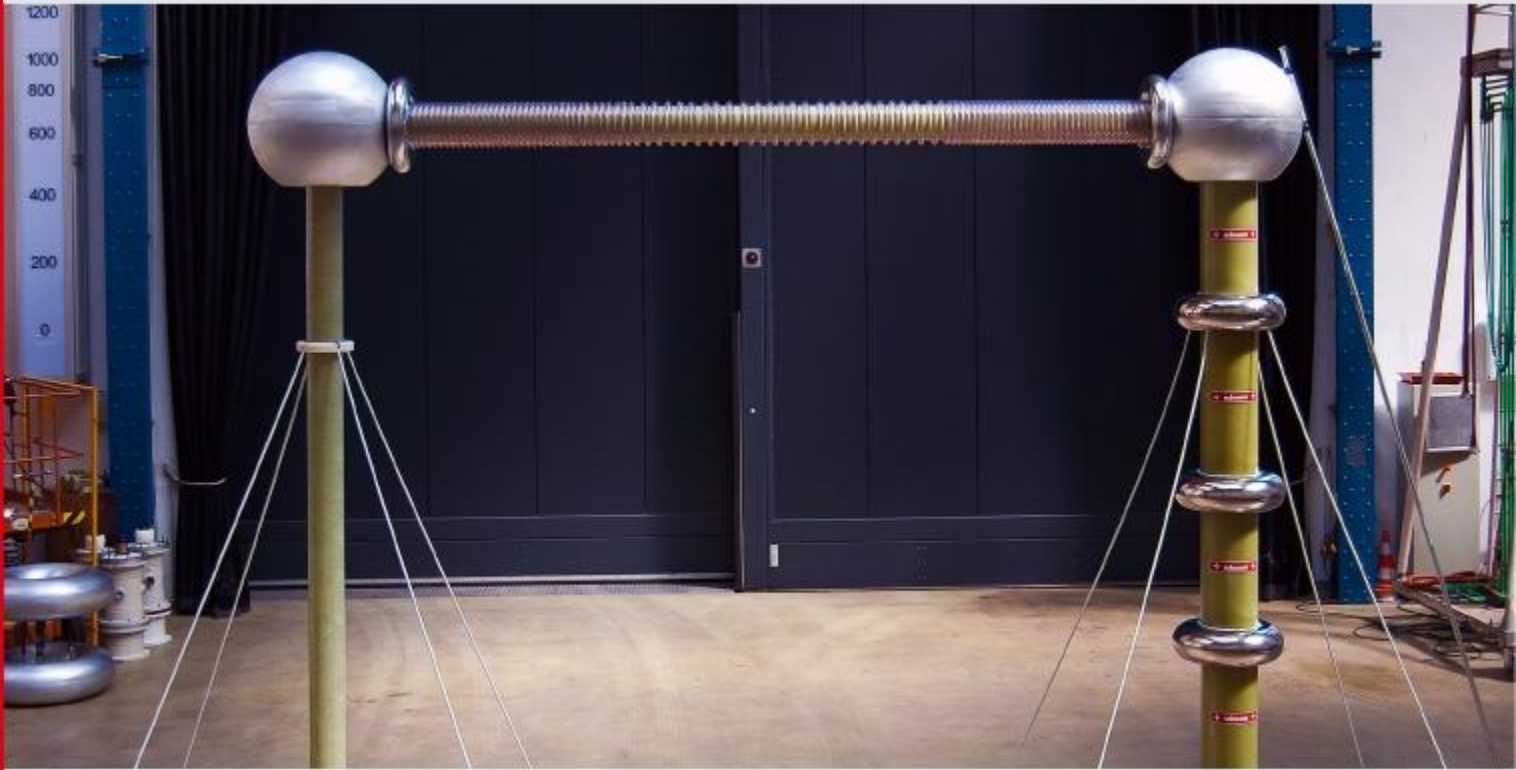


# Conducting **DC voltage tests** on all **electric power supply** components



## HVDC test systems

- One-button-operation on 5.7" LCD-colour display
- Test voltages of up to max. 800 kV<sub>DC</sub>
- DC voltage ripple < 3%
- Automatic measuring range switchover
- Motorised discharge switch
- High voltage generation both polarities optionally available

## HVDC – description

SebaKMT offers DC voltage test devices for a very wide range of voltages and applications. The HVDC test set system (formerly T26) is a high-performance, portable testing system that can be used to test all kind of components of high voltage-direct current transmission in line with the applicable regulations on the generation of HVDC voltages of up to 800 kV.

The systems are predominantly used by power supply companies, service providers, cable installers and cable manufacturers for testing DC voltage on high-voltage systems and cables. In addition, surge arresters, HVDC transformers or insulators can also be tested and leakage measurements conducted.



*HVDC test set with positive polarity (200 kV<sub>DC</sub>)*

The system is suitable both for on-site testing as a fixed-installation system as well as in a measuring trailer for the purposes of transportation.

The modular structure of the test system facilitates its set-up on site, and allows it to be individually adapted to the respective measuring tasks. The spatial segregation of the control unit and the high-voltage unit ensures that systems can be operated from outside the risk area. The high voltage system features a water resistance with ammonium sulphate solution which protects the cascade from surges caused by breakdowns in the test object.

Alongside DC voltage testing, the short-circuit-proof output circuit and the system's high power enable its use during fault location as a burner for modifying high-impedance and intermittent faults as another mode of operation.

Each DC voltage test is automatically earthed by the motorised discharge system and thereby set to a safe operational state. This takes care of secure earthing as well as unearthing before the start of a new measurement. The modular cascade set for generating high DC voltage is optionally available with negative or positive polarity.

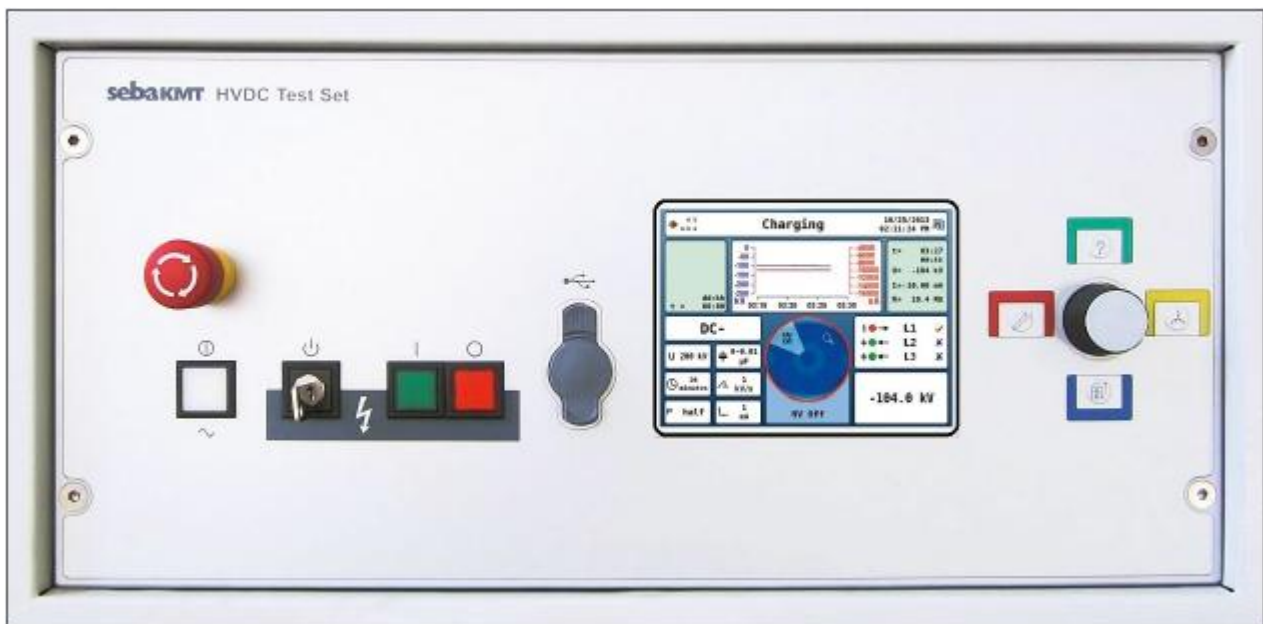


*HVDC testing system up to 400 kV<sub>DC</sub>*

In the event of a power cut, the automatic discharge system remains in its respective current position and no automatic discharging occurs. In this case however, discharging may be manually initiated using a rip cord and the gas pressure spring triggered in the process.

The device is controlled using standard SebaKMT one-button-operation with a quick selection menu as you are familiar with from other measuring systems (e.g. Variant, Centrix). The display of the progression over time of current and voltage and the storage of measurement data takes place on an automated basis in the background at a frequency of 4 Hz based on the EasyProt format and can be easily exported using a connected USB stick.

To ensure safe operation of the system during an ongoing DC voltage test or cascade burning, the system automatically shuts down by the software in case of an overcurrent (manually adjustable) or overvoltage. This avoids major damage to the test system and/ or test object in case of malfunctions or breakdowns.



*Control unit with one-button-operation*

## Special features

- Control via one-button-operation on 5.7" LCD colour display
- Modular cascading tower for test voltages of up to max. 800 kV<sub>DC</sub> (optionally for positive or negative high voltage)
- DC voltage ripple < 3% (acc. IEC 60060-1)
- Motor-driven discharge switch with manual closing function (emergency)
- Overtemperature protection for power electronics
- Automatic current measuring range switchover
- High voltage display with a resolution of 1 kV
- Logging in familiar EasyProt format using USB stick

Parameter	HVDC 200	HVDC 400	HVDC 650	HVDC 800
DC output voltage*	0 to -200 kV	0 to -400 kV	0 to -650 kV	0 to -800 kV
Output current	9 mA @ -190 kV	4 mA @ -350 kV	3.5 mA @ -600 kV	2 mA @ -800 kV
Short circuit current $I_k$	300 mA $\pm$ 10%	300 mA $\pm$ 10%	290 mA $\pm$ 10%	55 mA $\pm$ 10%
Residual ripple	< 3% (acc. IEC 60060-1)			
Voltage range	0 ... 800 kV, resolution 1 kV			
Measuring accuracy	$\pm$ 3%			
Current range	100 $\mu$ A... 300 mA (fully-automated range switchover)			
Overcurrent switch off	10 $\mu$ A ... 100 mA (adjustable)			
Test duration	1 min ... 99 days (adjustable)			
Max. discharge energy	600 kJ @ 200 kV	600 kJ @ 400 kV	1600 kJ @ 650 kV	2000 kJ @ 800 kV
Input voltage	220 ... 250 V, 50 / 60 Hz			
Power consumption $P_{max}$	4 kVA (16 A fused)		5.5 kVA (25 A fused)	
Operating temperature	-20 ... 55 °C			
Storage temperature	-20 ... 70 °C			

Product	Quantity	Order number
HVDC 200	1	899003476
HVDC 400	1	892502186
HVDC 650	1	892502216
HVDC 800	1	899003477