

HVTS-HP Series 100 & 140kV DC / AC HIPOT

MOBILE AUTOMATIC HIGH - POWER HIGH - VOLTAGE TEST SYSTEM

Mobile high-power high-voltage test systems HVTS-HP are designed for high-voltage testing of solid dielectrics with low and medium electric capacitance (power cables, switchgear, surge arresters, busbars, insulators, etc.) with **DC (rectified) voltage up to 140 kV** and high-voltage testing of other objects with **AC voltage up to 100 kV RMS** at industrial frequency of 50 Hz .

HVTS-HP series systems are able to output high current at high voltages, making them suitable for conducting a multitude of tests according to a wide range of standards and regulations.

The systems comprise of a control and a high-voltage mobile units, each built in a form of a trolley. The control unit is a mobile operator station powered from industrial mains and used to control the high-voltage unit from a safe distance. The high-voltage unit contains a **step-up transformer with SF6 insulation**, as well as a **high-voltage divider** and a **rectifier**.

HVTS-HP benefits from a **graphic display** and **digital control**, which allows to run tests in **manual** and **automatic** cycles, as well as store test results in internal memory of the system.

The systems feature an overcurrent, overvoltage and overheating protection.

Features:

- DC & AC test modes
- High power output
- Safe two-module composition
- Mobile design
- Graphic display and digital control
- Manual & automatic test cycles
- Internal memory for test results storage
- Overcurrent, overvoltage and overheating protection



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Specifications:

			HVTS-HP-100/100-7.5 (17.5)	HVTS-HP-140/100-7.5 (17.5)
DC testing parameters	Voltage	Output level	Up to 100 kV	Up to 140 kV
		Measurement error	± [3 % + 2 dgt*]	
	Current	Output level	Up to 40 (80) mA**	Up to 30 (60) mA
		Measurement error	± [3 % + 2 dgt]	
AC testing parameters	Voltage	Output level	Up to 100kV _{RMS}	
		Measurement error	± [3 % + 2 dgt]	
	Current	Output level	Up to 75 (175) mA _{RMS}	
		Measurement error	± [3 % + 2 dgt]	
Load capacitance in AC mode @ rated output voltage		Up to 2.4 (5.4) nF		
System parameters	Testing modes		<ul style="list-style-type: none"> • Manual • Automatic 	
	Voltage ramp rate		0.5 ... 4.0 kV/s, step 0.5 kV/s	
	Internal memory		32 test reports	
Interface	Monochrome graphic display		128 x 64 px	
	Interface languages		English	
Safety	Protection		<ul style="list-style-type: none"> • Over-voltage tripping • Over-current tripping • Thermal overload warning • Low pressure warning 	
Power supply and consumption	Supply voltage		230 V ± 10 %, AC	
	Supply frequency		50 Hz	
	Power consumption		up to 9 (19) kVA	
	Current consumption		40 (82) A***	
Physical	CU dimensions, H x W x D		1063 x 735 x 561 mm	
	CU weight		82 (127) kg	
	HVU dimensions, H x W x D		1012 x 639 x 750 mm	
	HVU weight		125 kg	

* dgt – least significant digit.

** The parameters in parentheses apply to the 17.5 versions of the System.

*** Inrush current may be greater. If used with an automatic circuit breaker in the mains supply, a minimum of 63 A (100 A for 17.5 version) breakers are recommended.

HVTS-HP series designed & manufactured by Kharkov Energo Pribor (KEP) at, its facilities in Ukraine, Europe & U.K