

HVTS-70/50P



HVU-G

Digital control unit

HVT-70/50P



HVU-L

Analog control unit

► Application

High-voltage testing system HVT and HVTS perform DC high-voltage testing of power cables (IEC 60502-2), power cables accessories (IEC 61442) as well as AC high-voltage testing of switchgear, reclosers, dielectric insulators, high-voltage dischargers (arresters), busbars and other dielectric materials with relatively low electric capacitance.

► Technical specifications

Both devices consist of a control unit and a high-voltage unit. High-voltage units of both HVT and HVTS can be supplied with either transformer oil as an insulating material (HVU-L) or with sulfur hexafluoride as an insulating material (HVU-G). Thus, there are four modifications offered: HVTS + HVU-G, HVTS + HVU-L, HVT + HVU-L and HVT + HVU-G. We recommend using either HVTS + HVU-G or HVT + HVU-L.

Parameter	Value			
	HVTS-70/50P		HVT-70/50P	
	DC	AC	DC	AC
Output voltage, kV	0 – 70	0 – 50	0 – 70	0 – 50
Voltage measurement accuracy, %	± 3			
Output current, mA	0 – 25	0 – 40*	0 – 1* / 15	0 – 45**
Current measurement accuracy, %	± 3			
Output voltage protection, kV	1 – 70 (settable)		–	
Output current protection, mA	1 – 40 (settable)		15	45
Consumption current protection, A	10			
Power supply voltage, V	230 ± 10 %			
Power supply frequency, Hz	50 ± 1			
Power consumption, kV•A, max	3.0			
Weight of control unit, kg, max	14			
Weight of high voltage unit (L), kg, max	22			
Dimensions of control unit, LxHxD, mm, max	354 x 266 x 240			
Dimensions of high voltage unit, LxHxD, mm, max	355 x 356 x 322		360 x 500 x 310	

* – In a short duration mode (1 minute ON, 5 minutes OFF).

** – For HVTS-70/50P given size and weight HVU-G, for HVT-70/50P given size and weight HVU-L.
 Technical data is an object to change without prior notification.

► Functional features

Control unit features	HVTS	HVT
High resistance to external environmental influences. Casing with firmly closing cover which prevents penetration of dust and moisture during the transportation and storage	✓	✓
Mobility. Supplied with a belt for easy transportation by a single person	✓	✓
Advanced protection and safety features. Emergency Stop button and grounding terminal on a front panel. Indication of the actual voltage on the output HV terminal	✓	✓
Analog indicators. Control panel with two analog indicators for voltage and current measurement	✓*	✓
Overcurrent protection. Blocks output circuit if current exceeds the limit	✓	✓
Overvoltage protection. Blocks output circuit if voltage exceeds the limit	✓	✗
CE Compliant. Conforms to the EU Directives 2006/95/EC (LVD) and 2004/108/EC (EMC), which is proven by independent tests at TRaC laboratories, UK	✓	✗
Improved precision. Ability to measure RMS values of both AC voltage and current irrespectively to the crest-factor (True-RMS) thus greatly reducing the crest factor errors	✓	✗
High-contrast graphical display. Ability to control and adjust the unit using a context menu which an operator can navigate by pressing keys located on both sides of display and reading the results on the display. Display indicates measurement and auxiliary information during test procedure	✓	✗
Automatic testing mode. Automatic and manual testing modes. In AUTO mode the unit raises the voltage at a pre-set rate to a pre-set voltage value, keeps the voltage on an object under test (OUT) for a certain time and then drops the voltage slowly down to zero	✓	✗
Internal memory for test results storage. Ability to save up to eight presets for the most frequently used test procedures. Ability to save measurement data history	✓	✗
Auxiliary protection. Blocking HVU-G output if insulating gas pressure is low or its temperature is high	✓	✗
High-Voltage unit features	HVU-G	HVU-L
External automatic. External shorting rod with a visible shorting indication. Ability to discharge OUT after voltage has been dropped down to zero by an operator without touching the High Voltage Unit.	✓	✓
Auxiliary protection. Built-in pressure and temperature sensors	✓	✗
Reduced weight and dimensions	✓	✗

* - graphic display shows two analog bars which are an emulation of an analog indicating scales.



HVTS-70/50P control panel



HVT-70/50P control panel



HVTS-70/50P conveyance carriage (optional)