

HVT-60/80-500

Resonant test system

- » Test voltage current, exciting voltage, resonance indication and monitoring function.
- » Voltage rising interlock when lose resonance.
- » Voltage, regulating speed can be adjusted continuously, little of waveform distortion.
- » Zero position, lower/upper limit, over current, over voltage, breakdown protection function.
- » Light alarm.
- » Back to zero after testing.



DESCRIPTION

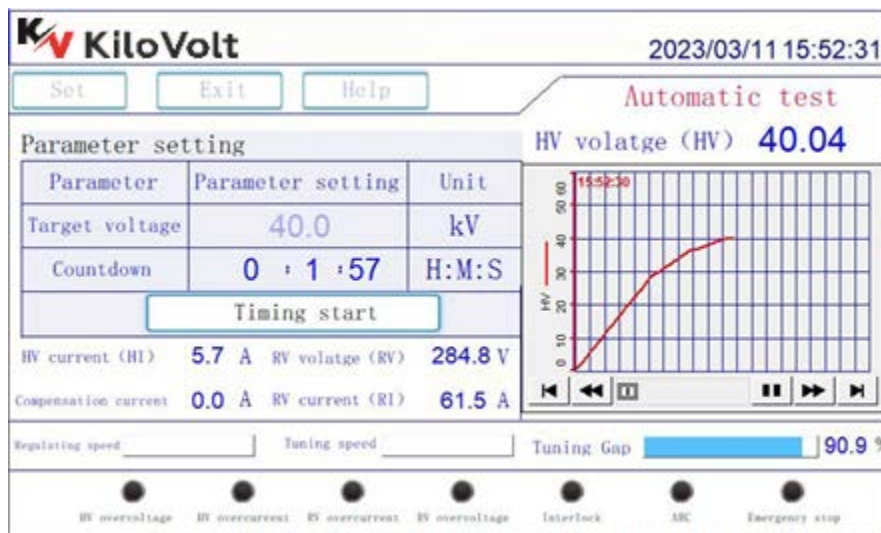
Technical performance:

Using manual button operation, can meet the complex test requirements and repeated for different test products. The display panel uses a 7-inch touch screen with the function of overvoltage and overcurrent protection.

Consider the monitoring terminal of the high voltage current of the external reactor (5 A).

Main features: By setting tripping and over voltage, over current limit value, to protect the test object. It can set the output limits of the high voltage reactor/transformer and the output limits of the excitation transformer. Automatically and manually tune or manually set the reactor compensation, setting the voltage increasing speed as a percentage of the final boost time or in KV/sec according to IEC 60060-1. Detailed status-fault information marked with colored highlights enables accurate fault detection and safe operation of the system. Voltage measurements conform to IEC 60060-1, showing true RMS values or $U/\sqrt{2}$.

Flashover detection: flashover voltage preservation. Graphical information support, easy for users to understand. The test data can be automatically stored in the preset table at the end of the test. Add overvoltage protection device, overcurrent, breakdown protection, automatic/ manual voltage up/down, time setting, etc. The photoelectric isolation between the signals can prevent high voltage from the control circuit and protect the equipment from high voltage shock. With manual, automatic mode to find resonance point; Voltage regulation, tuning multi - speed optional. With real-time recording voltage time, current -time curve recording.

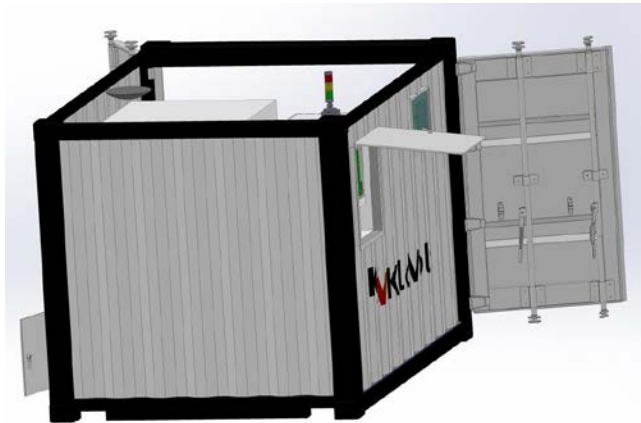


MAIN FUNCTIONS

- » Voltage, Current acquisition and indication with from divider of EXCIT/HVMD and CT; Gap (Inductance), adjustment, and phase also be indicated.
- » To preset: test voltage value and dwell time, over voltage/current protect value.
- » To number the acquisition: 6- digit from 0 to 9 can be input in.
- » To select the control mode, tuning mode (manual/auto).
- » To edit the test items.
- » To operate: start exit, confirmation, indicate, record (print, remote control mode).

CONTAINER

Dimension of container (L×W×H): 3000×2100×2000 mm 1 piece, container safety load -SWL is 10 tons. Choose two double-door containers, as shown below.



Container structure:

- ▶ Basic structure forms: It makes frame structure by beam, large corrugated plate is installed at outside, design with lifting lug
- ▶ The base frame and the top door frame which is made by U-steel, include the fork lift slot
- ▶ The frame besides the door frame, which adopts smaller u-steel
- ▶ Rain-proof protection design at the 380V/50 Hz power inlet.

Shockproof:

- ▶ Adopts mature industrial shockproof products, and shockproof devices are installed below the bottom plate of the test equipment, with shockproof springs, reliable effect and long life. The shockproof load is optional, with a single maximum of 3300 kG. The shockproof device can be fixed on the bottom plate of the container.
- ▶ Install cushion rubber pads at the bottom of containers. -optional



TECHNICAL SPECIFICATIONS

Testing

System rating	60 kV / 500 kVA
Maximum output voltage	60 kV AC / 30 kV AC / 80 kV DC
Maximum output current	8.33 A / 16.67 A
Maximum output capacity	500 kVA
Minimum load capacitance	0.022 μ F / 0.088 μ F
Maximum load capacitance	0.442 μ F / 1.769 μ F
Duty cycle	20 min ON, 40 min OFF, 8 cycle per day
Acoustic noise level	< 85 dB
Standards compliances	IEC 60502, IEC 60840, IEC 60601, IEC 60602, IEC 60551, GB 12706.3, GB 11017.2 etc

General

Input	380 V \pm 10%, 50 Hz, 30.0 kVA
Ambient temperature	+5...+40 $^{\circ}$ C (for operating), -10...+50 $^{\circ}$ C (for storage)
Daily mean temperature	\leq 25 $^{\circ}$ C
Temperature	+15...+25 $^{\circ}$ C for electronic controls and measuring
Relative humidity	\leq 85 % (no condensation)
Altitude	\leq 1500 m
Environment	indoors

AC/DC voltage divider

Rated voltage	100 kV AC/DC
Frequency	50 Hz
Capacitance	200 pF \pm 10 %
Resistance	200 M Ω
Measuring accuracy	\leq 1 %
Dielectric loss	\leq 0.2 %
Voltage ratio	1000:1
Insulation level	1.2 rated voltage, one minutes 1.2

General

Dimensions (\varnothing ×H)	120×800 mm
Weight	15 kg

YKTY-60kV/500 kVA Tank type Series Resonant HV Reactor

Duty cycle	20 min. ON / 40 min. OFF
Cooling	ON AN
Taps	60 kV AC / 30 kV AC / 500 kVA / 80 kV DC
Tap switch	HV motorized (no load) with safety Interlock
Parallel tap	Manual connection
Reactor drive	DC variable speed with electric brake roller chain
Steel core gap control	Over a 20:1 range, continuous adjustment in variable speed
Voltage monitor	Capacitive divider with coupling impedance
Voltage distortion	< 0.5 THD
Ground provision	STD 2 bolt
Control interconnection	Mil style Multipin
Signal interconnection	Coaxial BNC
Power interconnection	Bushing / terminal board
Design frequency	50 Hz
Operating	in Door, stationary

General

Input bushing rating	400 V / 30 kVA
Dimensions (L×W×H)	1400×2100×1700 mm (including bushing 2600)
Weight	3400 kg
Mode of operation	Series. Parallel
Insulation material	Thermally upgraded Kraft paper rated 105 °C, mineral based transformer oil, high strength Insulation paper, enamel wire Kraft paper tape wrapped.

Voltage Regulator (with switch in power cubic)

Type No.	TDGZ-30.0 kVA, 380 V, 50 Hz
Output rating	0 – 420 V, 71.42 A
Duty	same as system
Efficiency	> 98 %
Brush	Copper Alloy
Limit switch	Upper, Lower, Zero Start
Cooling	Dry
Adjustable rate of rise	15–150 s for 0–100 %
Motor type	DC, permanent magnet
Drive mechanics	Roller Chain
Ground provision	STD Brass Bolt
Control interconnection	Mil style, Multipin
Power interconnection	Bushing / Terminal board
Signal interconnection	Coaxial BNC

General

Dimensions (L×W×H)	900×700×1500 mm
Weight	180 kg

HVF-60 Resonance capacitor

Voltage rating	60 kV
Total capacitance	25 nF (± 10%)
Frequency	50 Hz
Accuracy	1.0%

General

Dimensions (ø×H)	240×600 mm
Weight	75 kg